

**PERCEIVED EFFECT OF TOTAL QUALITY
MANAGEMENT ON THE RELATIONSHIP BETWEEN
GENERIC STRATEGIES AND PERFORMANCE OF
KENYAN MANUFACTURING FIRMS**

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between Generic Strategies and performance of Kenyan
manufacturing firms**

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University

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DEDICATION

To all my children, always remember nothing is impossible with a willing heart.
May you always be happy?

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ABBREVIATIONS AND ACRONYMS

AGFI	Adjusted Goodness of Fit Index
AMOS	Analysis of Moment Structure
AVE	Average Variance Extracted
CEO	Chief Executive Officer
CMB	Common method bias
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
DF	Degree of Freedom
EAC	East Africa Community
EFA	Exploratory Factor Analysis
EFQM	European Foundation for Quality Management.
GDP	Gross domestic product
GFI	Goodness of Fit Index
ILO	International Labour Organization
ISO	International Organization for Standardization
KAM	Kenya Association of Manufacturers
KEBS	Kenya Bureau of Standards
KNBS	Kenya National Bureau of Statistics

KPMG	Klynveld Peat Marwick Goerdeler
NSE	Nairobi Securities Exchange
OLS	Ordinary Least Square
PA	Path Analysis
PCA	Principal Component Analysis.
RMSEA	Root Mean Square of Approximation
RMSR	Root Mean Square Residual
RoK	Republic of Kenya
SEM	Structural Equation Modelling
SPSS	Statistical Package for Social Sciences
SSA	Sub-Saharan Africa
TQM	Total quality management
USA	United States of America
VIF	Variance Inflation Factor

OPERATIONAL DEFINITION OF TERMS

- Strategy:** is a plans by which a company sets out to achieve its desired ends objectives (McKeown, 2015).
- Competitive strategy:** All moves and approaches that a firm has and is taking to attract buyers, withstand competitive pressure and improve its market position (Thompson & Strickland, 2010)
- Competitive advantage:** The organization ability to deliver the same benefits as competitors but at a lower cost or deliver benefits that exceed those of competition products (Wang, Lin & Chu,2011).
- Porter's Generic strategies:** How a company pursues competitive advantage across its chosen market scope; either through lower cost, differentiation or focus strategy (Porter, 1980).
- Cost leadership strategy:** an integrated set of action taken to produce goods or services with features that are acceptable to customers at the lowest cost, relative to that of competitors (Ireland, Hokisson & Hitt, 2011)
- Differentiation:** Is the ability of a firm to achieve competitive advantage over its rivals because of the perceived uniqueness of their products and services (Acquaah & Ardekani, 2008).
- Market Focus:** Implies pursuing specific market segments through overall cost leadership and /or differentiation as opposed to engaging in the whole market, (Porter, 1980).

Total quality management: An action plan to produce and deliver commodities or services which are consistent with customer needs or requirements by better, cheaper, faster, safer, easier processing than competitors with the participation of all employees under top management leadership (Lakhal, Pasin & Liman, 2006).

ABSTRACT

The Kenya manufacturing industry contributes to 11% of the country GDP, 26% of the merchandise exported and 12 % of formal employment. The manufacturing industry in Kenya is faced with a number of challenges one of which is competition from local firms as well as well-established multinationals. This necessitates the need for the sector to implement a viable business strategy in order to improve its competitiveness. Generic strategies are widely accepted both academically and practically as sustainable competitive strategies and their influence on performance have been critically examined in a wide range of business settings in countries worldwide. TQM on the other hand establishes quality enhancement as a dominant priority and one that is vital for long-term effectiveness and survival, it focuses on increasing efficiency and improving processes, provides superior customer value and meeting customer needs. The purpose of this study was to examine the effect of TQM practices, on the relationship between generic strategies and organization performance in the Kenyan manufacturing industry. Specifically, this study focused on establishing the mediating effects of TQM practice on the relationship between cost leadership strategies; differentiation strategies; markets focus strategy and organization performance. The study adopted a descriptive research design. The target population for the study was 39 ISO certified, manufacturing firms. The target respondents were the CEO, strategic managers and Quality Assurance managers from the 39 ISO certified manufacturing firms. A pilot test was conducted to assess the questionnaire validity and reliability of the data. Structural equation modelling (SEM) and multiple Regression analysis were used to analyse the relationships between generic strategies, TQM and organization performance. The finding indicated that TQM partially mediates the relationship between cost leadership strategy and organization performance. The study established that the mediation effects of TQM on the relationship between differentiation strategy and focus strategy varied depending on the performance measure. TQM partially mediated the relationship between differentiation strategy and both financial performance and overall performance, it fully mediated the relationship between differentiation strategy and the following performance measures customer satisfaction, internal process performance and organization learning and growth. The study also established that TQM fully mediates the relationship between focus strategy and the following performance measures; financial performance; Customer satisfaction and overall performance of the organization however it partially mediates the relationship between focus strategy and internal process performance and organization learning and growth. Lastly the study established that TQM partially mediated the relationship between generic strategies and financial performance; customer satisfaction; internal process performance; organization learning and growth and the overall performance. The study is important to managers it enables them to understand the role that different TQM practices play on various generic strategies this enables them in making strategic decision concerning TQM and generic strategy implementation and choice. The study recommends that manufacturing firms should be encouraged to integrate generic strategies with TQM practice, as TQM will enable them to build processes that are responsive to the customer's need, enable them transform existing resources in to new capabilities and integrate their processes with

those of their customers and suppliers. This will make the firms more competitive hence enhancing economic development.

CHAPTER ONE

INTRODUCTION

This chapter gives an introduction to the study. The chapter comprises of the following; background of the study; global, regional and country overview of the manufacturing industry; statement of the problem; research objectives; research hypothesis; justification of the study; the scope of the study and limitations of the study.

1.1 Background of the study

One of the main questions in strategic management field is why some firms in the same industry have systematically performed better than others (Crook, Bratton, Street & Ketchen, 2006). Competitive strategy is basically concerned with the patterns of decisions or choices that managers of firms make over which markets to compete in and how the business can add more value for buyers in order to gain more advantage than competitors. Generic strategies which are the focus of this study have been widely accepted as one of the most important contributors to the study of strategic behaviour in organization. According to Porter (1980) an organization can generate competitive advantage and ostensibly maximize performance either through cost-leadership, differentiation or market focus strategy. Extant literature (Kisaka & Okibo, 2014; Arasa & Gathiji, 2014; Acquaaah, 2011; Acquaaah & Agyapong 2015) supports the notion that each of these three generic strategies influences firm's performance in diverse contexts and they are therefore highly implemented by firms that want to out compete their competitors.

The link between organization strategy, structure and performance is a classical theme in strategic management; strategy follows structure and structure supports strategy; strategy and structure are married to each other; organization structure influences the performance of an organization strategy (Kavale, 2012). The organization structure is affected by the extent to which Total Quality Management is implemented within an organization (Yunis, Jung & Chen, 2013). TQM establishes quality enhancement as a dominant priority and one that is vital for

long-term effectiveness and survival it focuses on increasing efficiency and improving processes, provide superior customer value and meeting customer needs (Munisu, 2013). Its factors significantly affect the firm's performance with respect to internal procedures, customers, market share, and the natural and social environment (Zakuan, Yusof, Laosirihongthong & Shaharoun, 2010). Research has shown that strategic benefits of TQM are increased market share, return on investment and improvement in strategic performance (Zehir, Ertosun, Zehir & Muceldilli, 2012).

1.1.1 Generic Strategies

Strategy is a set of decisions making rules for guidance of organization behaviour that enables manager to attain competitive advantage over rivals. Porter (1980, 1985) introduced the concept of generic strategies namely differentiation, cost-leadership and market focus strategies. He argued that the generic strategies of cost leadership, differentiation and market focus represent different strategic orientations available to a firm to compete in its industry. Firms that adapt these orientations would acquire a competitive advantage that would enable them to outperform industry competitors (Ghasemi, Abdi, Yaghmaei & Nemati, 2015). Organizations that implement a differentiation strategy develop a competitive advantage by creating a product or service that is unique or creates the perception in the minds of customers that the firm or its products and services are superior to those of its competitors and also possess characteristics that are distinctive from those of its competitor's. These perceptions are generated through design quality and innovativeness (Acquaah, Adjei & Mensa-Bonsu, 2008).

Porter (1980) asserts that the cost leadership approach requires a vigorous pursuit of cost reductions. Firms that implement cost leadership strategy focus on out performing competitors through efficiency (Tansey, Spillane & Meng, 2014) by controlling production costs, materials costs, supply costs and product distribution costs. The third generic strategy, market focus is about concentrating on a particular client, segment of the market, or geographical market. Porter (1980) acknowledged that the focus strategy is built around serving a particular target very well. Within

its target market, the firm seeks to meet the needs of the customer better, resulting in cost leadership through marketing and operating efficiencies or differentiation from better services.

Porters (1980; 1985) generic strategies are have been widely accepted and adopted as the dominant paradigm of strategy, research and practice (Newton, Gilinsky & Jordan 2015; Tansey, Spillane & Meng, 2014). These include industries as diverse as shipping (Niamié, & Germain, 2014); telecommunication industry (Arasa & Gathiji, 2014); higher institution of learning (Kisaka & Okibo, 2014); wine industry (Newton et al., 2015) and hospitality industry (Kaliappen & Hilman,2014) and countries as diverse as Kenya (Matunga & Minja, 2014); Ghana (Acquaah, Adjei & Mensa-Bonsu, 2008); Iran (Faezi, 2014); USA (Zatzick, Moliterno & Fang,2012); Romania (Bordean, Borza, Nistro & Mitra,2010); Argentina and Peru (Parnell, 2011). Porter's typology has also received more research attention than any other typologies (Sumer & Bayraktar, 2012). It has been widely used by the researchers studying relationships between firms' competitive strategy and; performance measurement (Jusoh & Parnel, 2008); innovation (Kaliappen & Hilman, 2014); business capabilities (Acar & Zehir, 2010); Social networks (Acquaah; 2011) and Marketing Capabilities (Acquaah & Agyapong, 2015) among others.

The paradigm's theoretical proposition has also attracted intense debate (Ozdemir & Mecikoglu, 2016). Challengers (Salavou, 2013; Huang, 2011; Shinkle, Kriauciunas & Hundley, 2013) to this typology argued that conditions which favour cost leadership strategies were independent conditions that might favour differentiation strategies. Others (Parnell 2013; Manev-Azorin & Claver-Cortés, 2009) argue that combining elements of both generic competitive strategies, simultaneously lead to better performance. However, this typology remains unchanged in strategic management literature (Kotler & Armstrong, 2010; Pearce & Robinson, 2007).

1.1.2 Total Quality Management

Total quality management (TQM) has been widely accepted as a holistic management philosophy that strives for continuous improvement in all functions of

an organization (Oakland, 2014). Quality refers to the ability of a product or service to constantly meet or exceed customer expectations (Munisu, 2013). According to Chaudary, Zafar and Salman (2015) TQM is a set of instruments employed by the firm's management that aim to provide better value to customers by recognising their observable and hidden needs (which are sensitive to the changing markets) and improve the efficiency of the procedure that generate the product or service.

TQM is a multidimensional construct that consists of several activities these includes; leadership management, factual approach to decision making, process management, supplier management, continuous improvement, employee management, customer focus and system approach to management (Zehir et al., 2012). Continuous commitment to TQM implementation has a significant positive effect on superior firm performance (Lee & Lee, 2014; Wali & Boujelbene, 2010). Previous studies have reported that Organizations that effectively implement TQM generate many benefits such as higher quality products, more satisfied customers, reduced costs, improved financial, quality and innovation performance and in addition to these improved employee job satisfaction (Munisu, 2013).

1.1.3 Organization Performance

An organization is a voluntary association of productive assets, including human, physical and capital resources for the purpose of achieving a shared purpose (Elisiva & Sule, 2015). What constitutes an effective strategy depend on how one measures performance (Cavalier, Ggaiardelli & Ierace, 2007; Pongatich & Johnson, 2008). Scholars (Van der Stede, Chow & Lin, 2006) have further suggested that different measures are appropriate for different strategies. These measures include effectiveness, efficiency, financial viability and relevance to stakeholders (Shisia, Sang, Matoke & Omwario, 2014). According to Richard, Devinney, Yip and Johnson (2009) organization performance should encompass three specific areas financial performance, product market performance and shareholder return.

Kaplan and Norton (1992) introduced the balanced scorecard approach to measure performance. Since then this framework has been adopted and applied by hundreds of organizations worldwide (Awadallah & Allam, 2015). The balanced scorecard

integrates financial and non-financial based performance measures allowing the manager to measure performance from several perspectives simultaneously. The balanced scorecard metrics includes financial measures that tell the results of actions already taken. It also comprises of three sets of operational measures having to do with customer satisfaction, internal processes and the organization ability to learn and improve the activities that drives future financial performance.

To measure organization performance, the study adopted the balance scorecard performance metrics which stipulates financial metrics and non-financial metrics. Financial metric remained the ultimate measure of a firm's performance as it helped to determine whether a firm's strategy and execution are supporting the overall mission of the firm (Madsen & Stenheim, 2014). The financial measures adopted focused on profitability and cost reductions. Non-financial measures include; Customer satisfaction under this measure the study focused on customer loyalty, customer retention and customer acquisition. The study also measured the extend which internal process have been improved. The main focus as recommended by Bose and Thomas (2007) is on activities that enhance customer satisfaction; innovation and learning; to improve the skills of employees. Learning and growth perspective is particularly important for strategic management to identify, improve and better the performance of intellectual capital and is critical to develop innovative product design, product, distribution and promotion and to improve the market value of an organization beyond the value of intangible asset base. Adapting a balanced scorecard approach provides a holistic performance outlook that ensured that the researcher focuses on the entire business process and both current business activities and events contribute to customer values and to the long-term growth of the organization (Awadallah & Allam, 2015).

1.1.4 Global Overview of the Manufacturing Industry

The impact of manufacturing industry on economic development is tremendous, a strong and thriving manufacturing sector usually precipitate industrialisation (KPMG, 2014). However, the world today is in a dynamic state of transition and transformation moving towards an integration of a single global market, referred to

as a global village in which everyone is free to live, sell and buy; this transformation process is referred to as globalization (Ali, Awidini & Adan, 2012). Globalization has led to intense competition among manufacturing firms; economies have been opened to both domestic and international competition (Acquaah, Adjei & Mensa-Bonsu, 2008). The globalization of the marketplace and the rapid improvement in high quality products and services has brought about high levels of market pressure across the world forcing manufacturers to reconsider their status in terms of quality cost and ability to deliver (Kibe & Wanjau, 2014).

As a result, most countries in emerging economies of Africa, Asia and Latin American have embarked on transforming their economic and business environment by implementing liberalization policies. The contents of the economic liberalization policies in most African economies include privatization of state-owned enterprises, removal of barriers to foreign trade in the form of import controls and foreign exchange restrictions, removal of price controls and domestic product subsidies, and monetary and banking reforms (Acquaah et al., 2008). This has had a negative effect on the manufacturing firms in this country as it has intensified competition in these countries.

1.1.5 Regional Overview of the Manufacturing Industry

African manufacturing industry is still in its infancy and is curtailed by a number of shortcomings among this is competition. The manufacturing sector is widely considered to be the ideal industry to drive African development; this is due to the labour-intensive export-focused nature of the industry (KPMG, 2014). However, the manufacturing sector in Sub-Saharan Africa (SSA) still plays a relatively small role compared to other regions. According to Dinh, Palmade, Chandra and Cossar (2012) report, manufacturing firms in Africa accounts for 13% of the GDP in SSA; the sector accounts for only 25% of the exports in SSA lower than any other region. In comparison to east and south Asian countries where manufacturing exports account for roughly 75% of exports. This quantitative and qualitative difference between developed world manufacturing sectors and most African manufacturing

sector illustrates that the sector need to progress before becoming globally competitive (KPMG, 2014).

1.1.6 Overview of manufacturing industry in Kenya

The Kenya manufacturing industry contributes about 10.7 % of the country GDP (KNBS, 2016). The sector accounted 26% of the merchandise exported; 12 % of the total formal employment which is about 280, 0000 people (KNBS, 2015). However regardless of this contribution vision 2030 stipulates that the sector should account for 20% percent of the GDP (KNBS, 2015) achieving this goal requires addressing underlying constrains that hinder faster growth. These include high input cost, decline in investment portfolio for some activities, high credit costs and stiff competition from imports. In an effort to spur growth in the sector, the government continues to invest in both infrastructure developments projects and cheap energy supply mainly in geothermal and wind energy aimed at improving competitiveness of manufactured products in domestic and global markets (RoK, 2015).

Despite this the sector faces high competition; the survival rate of export manufacturing firms is low. Particularly the first few years of entering export markets, 65% of firms exit the export market by the second year of operation (World Bank, 2014). Real growth rate in the sector was averaged 4.1% in 2006-2013, lower than the average annual growth in the overall real GDP of 4.6% as a result the manufacturing sector's share in output has declined in recent years hindering the country's ability to become fully industrialized (KPMG, 2014). The Kenyan manufacturing industry is dominated by food and consumer goods processing; meat and fruit canning, wheat flour and maize milling, and sugar refining are notable subsectors (KPMG, 2014). The country manufactures a range of other goods including the following; chemicals, textiles, ceramics, shoes, beer and soft drinks, cigarettes, soaps, metal products, batteries, plastics, cement, aluminium, steel, glass, rubber, wood, cork, furniture and leather goods.

1.2 Statement of the Problem

The Kenyan manufacturing sector is faced with a number of challenges one of which is competition (Chege, Ngui & Kimuyu, 2014). The manufacturing industry must compete locally with imports from well-established multinational firms while at the same time trying to have a competitive edge in the world (World Bank, 2016). The competitiveness of Kenya manufacturing exports has been slowly declining; traditionally Kenya was the largest exporter of various manufactured goods to the EAC currently its market share has declined from 9% in 2009 to 7% in 2013; Globally its market share has also been on the decline from 0.18% in 1980 down to 0.06% in 1994 and 0.02% in 2013 (World Bank, 2014).

Acar and Zehir (2010) emphasized on the need for an organization to implement a viable business strategy in order to improve its competitiveness. Porter's (1980) Generic strategy model positive linkage to organization performance has been widely documented over the past three decades (Parnell, 2011; Luoma, 2015; Salavou, 2015). The model stipulates that an organization can attain superior performance over others by either establishing cost leadership position or differentiating its offering from those of its rivals, either of these approaches may be accompanied by focusing efforts on a given market niche. Faezi (2014) envisaged that generic strategies need to be complemented with TQM implementation in order to provide sustenance and achieve high performance.

TQM has become an irrepressible, globally pervasive strategic force in today's business environment (Asif, Bruijin, Douglas & Fisscher, 2009). Organizations that have implemented TQM practices consistently outperform organizations that have not implemented TQM practices (Vanichchnchai & Igel, 2011; Akgün, Ince, Imamoglu, Kekskin & Kocoglu, 2014). Studies have shown that TQM is positively associated with performance outcome such as; Financial performance and profitability (Chaudary, Zafar & Salman, 2015; Talib, Rahman, & Quresh, 2013); customer satisfaction (Mehra & Ranganathan, 2008) and knowledge management (Ooi, Cheah, Lin & Teh, 2012; Aboyassi, Alnsour & Alkloub, 2011).

The impact of TQM on strategic management research practices still remains unclear and under examined (Nouri, 2013). Scholars (Nouri, 2013; Asif et al., 2009) posit that TQM literature is pretty much divorced from the field of strategic management. A number of researchers (Yunis, Jung & Chen, 2013; Escrig-Tena, Bou-Liusar, Beltr`an-Mart`in & Roga-Puig, 2011) have studied the impact of TQM on business strategies performance as a driver to strategic choices; Jung, Wang and Wu (2009) examined the relationship between TQM and business strategies in international projects in USA; Zatzick, Moliterno and Fang (2012) explored how fit organization strategic orientation relates to TQM implementation in USA; Prajogo and Sohal (2006) studied the relationship between organization strategy, TQM and organization performance in Australian firms; Revuelto-Taboada, Canet-Giner and Balbastre-Benavent (2011) investigated the relationship between Quality tools and techniques, EFQM experience and strategy formulation in Spanish service firms. The primary focus of these studies has been on advanced economies. In Kenya, related studies have been carried out by Awino, Muchara, Ogutu and Oeba (2012) to find out the effect of Total Quality implementation on Horticulture Industry Competitive advantage. Other studies (Karani & Okibo, 2012; Kibe & Wanjau, 2014) have focused on the effect of TQM on organization performance. The study examined the mediating effect of TQM on the relationship between generic strategies and organization performance in Kenyan manufacturing sector.

1.3 Research objectives

1.3.1 General objective

To examine the Mediating effect of TQM on relationship between generic strategies and organization performance in Kenyan manufacturing sector.

1.3.2 Specific objectives

- i) To establish the mediating effect of TQM practice on the relationship between cost leadership strategy and organization performance.
- ii) To determine the mediating effect of TQM practice on the relationship between differentiation strategy and organization performance.

- iii) To examine the mediating effect of TQM practice on the relationship between focus strategy and organization performance.
- iv) To examine the mediating effect of TQM practice on the combined effects of generic strategies on organization performance.

1.3.3 Research Hypothesis

H₀₁: TQM practice has no significant Mediating effect on the relationship between cost leadership strategy and organization performance.

H₀₂: TQM practice has no significant Mediating effect on the relationship between differentiation strategy and organization performance.

H₀₃: TQM practice has no significant Mediating effect on the relationship between market focus strategy and organization performance.

H₀₄: TQM practice has no significant Mediating effect on the combined effects of generic strategies on organization performance.

1.4 Significance of the study

The study is significant to manufacturing firms. The business world today is undergoing rapid transformation and is operating in a highly turbulent and dynamic environment that calls for business to plan and anticipate any uncertain future by crafting appropriate and sustainable response strategies. The management of Kenyan manufacturing firms will gain a better understanding of competitive strategies that are adopted by firms and the significance of implementing TQM within their organization. The manufacturing firms can then implement TQM and Generic strategies from a more informed position. The study is therefore significance to the management of Kenyan manufacturing firms as they formulate the most effective competitive strategies in order to cope with the ever changing and fast-paced trends and demands of the business environment.

The study is significant to the government. The Growth targets for manufacturing sector stated by the government in vision 2030 are ambitious and require rapidly increasing investment levels, eventually reaching levels above 20% of the GDP (RoK, 2015). Against the backdrop of these ambitious plans of the government the manufacturing products face intense competition from imports from multinational firms. The study will therefore facilitate policy formulation and implementation for all working toward improving the competitiveness of the Kenyan manufactured products.

The study is significant to academicians. The relationship between competitive strategies organization performance has been studied by many researchers however the Mediating effect of TQM on this relationship has remained unexplored among the Kenyan manufacturing firms. This Research will as a result increase the body of Knowledge. The findings can be used as a source of reference to other researchers. In addition, it may stimulate further research in this area and as such form a basis of good background for further researchers.

1.5 Scope of the study

The study examined the effect of TQM on the relationship between generic strategies; cost leadership, differentiation, focus strategies and manufacturing firm's performance using a balance scorecard approach. The study it focused on manufacturing firms that are ISO certified in Kenya. The period for conducting the study was between November 2016 to October 2017.

1.6 The Delimitations of the Study

The study mainly focussed on the manufacturing firms and ignores firms in the primary industry dealing with extraction of natural resources and service providers. Despite the fact that this study focuses on manufacturing firms in Kenya. The study is only limited to firms that are ISO certified, manufacturing firms that are not ISO certified have been excluded in this study based on the researcher's assumptions that they may not be acquainted with TQM practice.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter reviews relevant literature on the effect of TQM on the relationship between generic strategies and organization's performance. The chapter develops theoretical reviews, conceptual framework and empirical review that was used in the study in regard to each variable in the study. The review further identifies research gaps and areas recommended for further research

2.2 Theoretical Framework

Theoretical framework is a collection of interrelated concepts determining what variables a researcher will measure and what statistical relationship the researcher will be looking for. It provides a researcher with lens to view the world (Ngugi, 2013). This study was based on knowledge based theory; dynamic capability theory; resource based view theory and systems theory.

2.2.1 Knowledge Based Theory of the Firm

This theory considers knowledge as the most strategically significant resource of the firm, a firm's competitive advantage depends upon what it knows and how it uses what it knows and how fast it can create something new (Duran, Centinder & Sahan, 2014). The capability to learn, or the ability to create and apply new knowledge is considered a source of sustainable competitive advantage and superior corporate performance (Islam, Low, Kim & Hasan, 2011). The aim of knowledge management is to create a "learning organization" which evaluates, stores, uses and commercializes expertise and authentic knowledge of the employees in the organizations so as to create an organization more powerful and valuable and more competitive than its competitors (Duran et al., 2014). TQM and knowledge management constitute and interact in area of continuous improvement and workforce empowerment. Enterprises that have implemented TQM practices

are better in the fields of obtaining knowledge from customers and employees participation in dissemination of knowledge.

According to Hung, Lien, Fang and McLean (2010) one of TQM greatest benefits is its emphasis on continuous improvement of business processes so that it can improve organizations competitiveness, effectiveness and flexibility. To achieve continuous improvement firms must promote organization learning to create knowledge that can be utilized in future to improve business processes (Islam, et al, 2011). Hung *et al.* (2010) posited that Knowledge Management initiatives have an indirect effect on innovation performance through TQM practice; by focusing on meeting customers' needs and encouraging organizations to continually identify new customer's needs and expectations. Thereby inducing organizations to innovate, continually develop and introduce products that meet markets changing needs.

TQM focus on top management support and employee involvement is also seen as critical to successful knowledge management and sequentially organization innovation. Organizations must be able to learn from past experiences, effectively use knowledge, correct errors and apply this knowledge within organizations if they are to change and adapt to continuously changing markets (Akgun, Ince, Imamoglu, Kekskin & Kocoglu, 2014). When systems empower employees during quality improvement initiatives, their knowledge and skills are applied more easily, consequently these systems create opportunities for employees to disseminate their knowledge throughout an organization. Organizations where all employees have been equipped with the necessary and right type of information have a competition advantages over its competitors (Han & Anantatmula, 2007).

Knowledge management has many benefits. Hooshyar (2010) considers Knowledge management as a fundamental source of competitive that leads to costs reductions. TQM practices such as customer focus, continuous process improvement, employee empowerment and leadership; create mutual trust and knowledge sharing culture among organization and leverage the impact of knowledge on organization performance (Rasula, Vuksic & Stemberger, 2012). Jung, Wang and Wu (2009)

hypothesises that knowledge management leads to creativity and innovation hence it further enhances product differentiation. Considering the relationship between TQM and Knowledge management. This theory instigates the researcher's second and third hypothesis which states that; TQM practice has no significant Mediating effect on the relationship between differentiation strategy and organization performance; TQM practice has no significant Mediating on the relationship between market focus strategy and organization performance.

2.2.3 The Resource Based View Theory

The resource-based theory developed by Penrose (1959) later expanded by (Wernerfelt,1984; Barney, 1991; Conner, 1991) stipulates that in strategic management the fundamental sources and drivers to the firms' competitive advantage and superior performance are mainly associated with the attributes of their resources and capabilities which are valuable and costly to copy. Organizational resources and systems have been conceptualized to be able to significantly predict the level of competitive advantage (Ismail, Rose, Uli & Abdullah, 2011). The resource-based theory builds its assumptions on the basis that strategic resources are heterogeneously distributed across firms and immobile. A firm is said to have a competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these competitors are unable to duplicate the benefits of this strategy (Barney, 1991). Barney (1991), Collis and Montgomery (1995) offers a series of five tests for valuable resources; inimitability (hard for competitors to copy the resource); durability (how quickly does the resource depreciate); Appropriability (who capture the value that the resource creates, company, customers, supplies employees); substitutability (can a unique resource be trumped by different resources) and competitive superiority (is the resource really better relative to competitors).

Itami and Roehl (1987); Prahalad and Bettis (1986) and Prahalad and Hamel (1990) are the most significant contributors to this theory. Itami and Roehl (1987) theory of invisible assets suggests that invisible assets, for example information based

resources such as technology, customer trust, brand image, control of distribution, Corporate culture, management skills are necessary for competitive advantage because they are hard and time consuming to accumulate. Visible assets on the other hand, must be present for business operations to take place, but it is invisible assets that lead to competitive advantage.

According to Addae-Korankye (2013) TQM provides resources that are invisible intangible and extremely difficult for a competitor to copy for example; a company unique culture, transformational leaders, superior customer service hence it has a long lasting competitive advantage. Silva, Gomes, Lages, and Pereira (2014), conceptualized TQM as a set of integrated organizational resources that contribute to achieving and sustaining competitive advantage. Based on the fact that TQM is a unique strategic value creating resource that is inimitable and gives the firm a sustainable competitive advantage. This theory Instigate the following research hypothesis; TQM practice has a significant Mediating effect on the relationship between differentiation strategy and organization performance.

2.2.4 Dynamic Capabilities Theory

Yusr, Othmanand and Mokhtar (2012) defined dynamic capabilities theory as the total competences/capabilities enabling a firm to come up with novel products and processes and to respond to the dynamic market situation. Wang and Ahmed (2007) defined dynamic capabilities as a firm's behavioural orientation to constantly integrate, reconfigure, renew and recreate its resources and most important upgrade and reconstruct its core capabilities in response to the changing environment to attain and sustain competitive advantage. Dynamic capabilities theory posits that the most significant and enduring source of competitive advantage, rather than being located in the simple possession of idiosyncratic resource is constituted by the capability of firm to acquire, integrate and deploy resources in ways that match each firm's environment (Eisenhardt & Jeffrey, 2000). According to Kuei and Lu (2013) business enterprises of all sizes are expected to build capabilities and capacities to offer better and cheaper products, shorter response times and higher service levels to meet customers demand.

Dynamic capabilities stresses on management capability and the unique combination of resources throughout the functions such as research and development, product and process development, manufacturing, human resource and organization learning. Applying TQM in the organization provides a good environment and conditions that lead to generate distinctive capabilities in different aspects of the organization (Santos-vijande & Lez, 2007). Successful TQM Implementation requires several practices leadership commitment, customer focus, people management, process management, supplier management, and quality data reporting. Implementing these practices lead to generate several capabilities within the organization (Yusr, Othman & Mokhtar, 2012). For example leadership commitment to achieve quality performance provides an environment that encourages the trust and cooperation among employees which in turn, lead to knowledge flow across the organization as a result the organization develops innovation capabilities (Ju, Lin, Lin & Kuo, 2006); Customer focus orientation support the organization with the necessary feedback regarding the customers' attitudes, preferences and complaints, these information help the organization to improve marketing capabilities (Ooi, Teh, Arumugam & Chong, 2008); and the ability to consistently improve current processes and learn new ones is termed continuous improvement capability (Anand, Ward, Mohan & Schilling, 2009). Continuous process improvement Capabilities are valuable because they give firm a lower cost structure or basis of differentiation, (Porter, 1980).

TQM practices enable the organization to build marketing capabilities (Yusr et al., 2012), innovation capabilities (Yusr, Mokhtar & Othman, 2014) and process improvement capabilities (Silva, Gomes, Lages & Pereira, 2014). These capabilities enhance the performance of generic strategies. This theory instigates the following research hypothesis; TQM practice has no significant Mediating effect on the relationship between differentiation strategy and organization performance; TQM practice has no significant Mediating effect on the relationship between market focus strategy and organization performance and lastly TQM practice has no significant Mediating effect on the relationship between a generic strategies and firm's performance

2.2.5 System Theory

System thinking was developed in 1950 as an alternative to traditional management thinking (Mingers & White, 2010). The system school views organizations as complex interrelationship amongst input, throughput (process), output and feedback. According to this theory an organization is an open and complex system with varying degrees of process flexibility and many feedback loops which are used adaptively by an organization for its survival. An organization as a complex system is made up of activities or interrelated elements such as firms activities, policies, structural elements and resources are seen to form of configurations. Some activities in this system are core activities elements; they are tightly connected or interact with other elements in the system. In this way, the system as a whole is characterized by the connections or interactions of its core elements.

Siggelkow (2002) introduces the idea of elaborating elements or elements that are added to the system to reinforce existing core elements. Each core element of an organization may be supported overtime by a series of elaborating elements. A firm with many organizational elements that reinforce each other is said to have a high degree of internal fit (Siggelkow, 2001). When elaborate elements are complementary with core elements or system as a whole these new elements thicken connections in the system and drive tighter connections between them enabling the organization to gain internal fit (Porter & Siggelkow, 2008). When elements in the system achieve internal fit, high performance and sustainable competitive advantage can accrue to the organization.

Zatzick et al. (2012) hypothesized TQM as an elaborating element when added to an organization system; TQM reinforces the core elements over time enabling the organization to achieve cost efficiency. When TQM is implemented the organization engage only in a thickening process of its core elements this eventually can lead to configurations with increasingly tighter interactions and high internal fit (Siggelkow, 2002). When elements in the system achieve internal fit high performance and sustainable competitive advantage can accrue to an organization. The fit among the elements of an organization may be evidenced by

the degree to which strategy, structure and systems complement one another leading to efficiency and higher performance. Visualizing strategy as core elements within the organization and TQM as elaborate elements that enhances cost efficiency (Zatzick et al., 2012) this theory prompts the development of the following research hypothesis which states that; H₀₁ :TQM practice has no significant Mediating effect on the relationship between cost leadership strategy and organization performance.

2.3 Conceptual framework

Mugenda (2008) defines conceptual framework as a concise description of the phenomenon under study accompanied by graphical or visual depiction of the major variable of the study. According to Young (2009), a conceptual framework is a diagrammatical representation that shows the relationship between dependent and independent variables. In this study the conceptual framework will look at the Mediating effects of TQM and the relationship Between Generic strategies and organization performance as proposed in the figure 2.1;

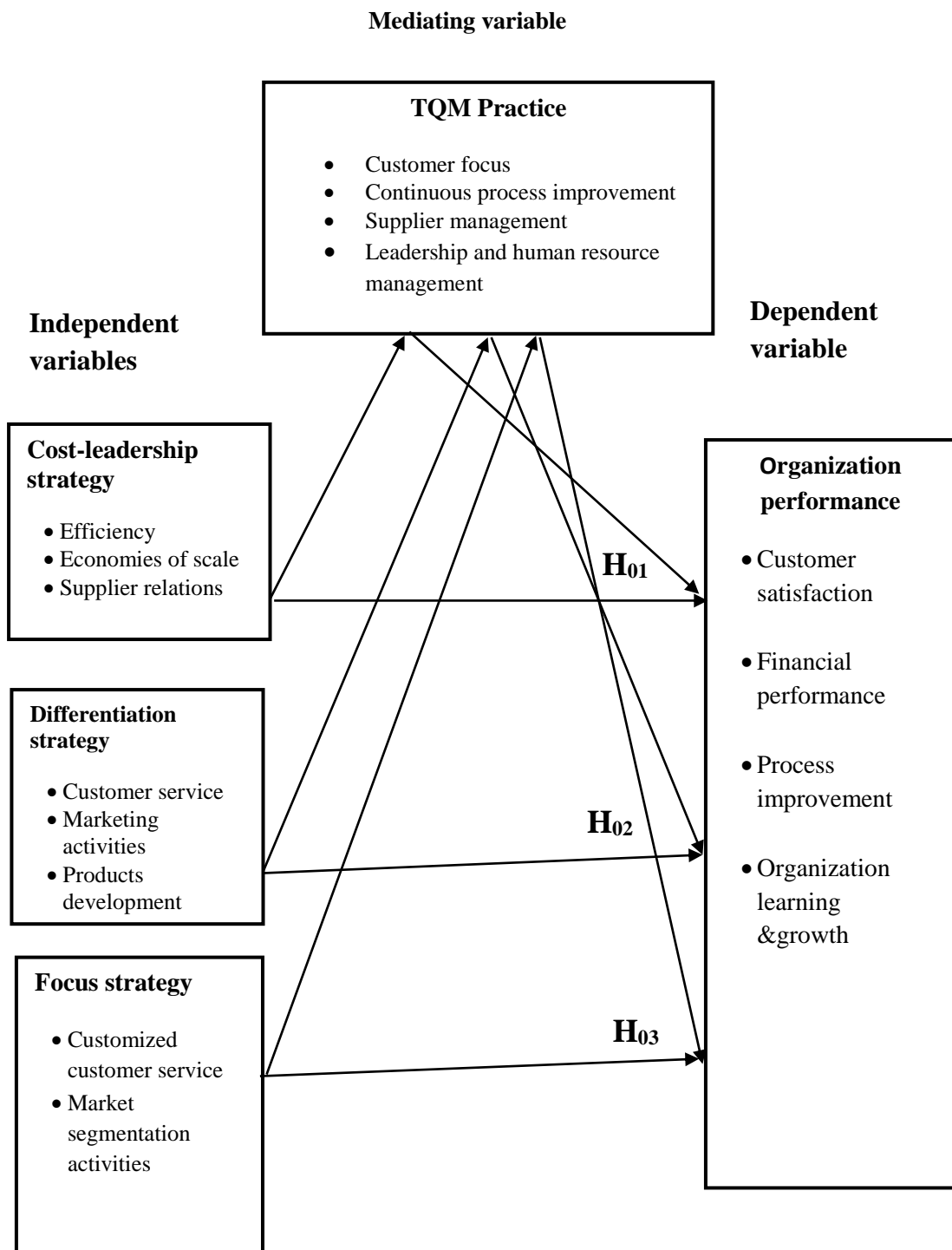


Figure 2.1: Conceptual frame work

2.3.1 Generic strategies

Porter (1980) generic competitive strategy posits that an organization can generate competitive advantage and ostensibly maximize performance either through cost-leadership, differentiation or a market focus strategy. These three generic strategies were defined along two dimensions' strategic scope and strategic strength. Strategic scope is a demand-sided dimension and looked at the size and composition of the target market while strategic strength is a supply-sided dimension and looks at the strength of core competency of the firm.

The focus of firms implementing a cost leadership strategy is on stringent cost control and efficiency in all areas of operations. A cost leadership strategy emphasizes on creating competitive advantage through generating and maintaining low-cost positions relative to competitors (Porter, 1980). This maintaining good relationships with suppliers, organizing and managing its value adding activities so as to produce a product (good or service) at lower cost than competitors; providing a standard, no frills, and high volume product at the cheapest prices to customers; favourable access to raw materials; accurate demand forecasting combined with high capacity utilization; economies of scale; technological advantages; outsourcing and learning /experience. As a result, the firm can keep prices low and attract a market segment of the market interested in inexpensive products.

Differentiation strategy involves creating market positions that is perceived as being unique industry wide and that is sustainable overlong run (Porter, 1980).In a differentiation strategies emphasis is on creating value through uniqueness achieved through services innovations, superior services, creative advertising, better customer relationships, better product performance, design, brand image and control of distribution channels leading to better services or in an almost unlimited number of ways. Firms following a differentiation strategy appeals to a sophisticated or knowledgeable consumer interested in a unique or quality product. The uniqueness of differentiation strategy permits the organization to charge premium prices for its products and/or services.

The firm can choose to focus on a selected customer group, product range geographical or service line. Firms pursuing focus strategies have to be able to identify their target market segment assess and meet the needs and desires of buyers in the segment better than any other competitors (Porter, 1980). It is hoped that by focusing its marketing efforts on one or two narrow market segments and tailoring its marketing mix to these specialized markets the firm can meet the needs of the target market better and become less vulnerable to competition from rivals or substitute.

Salavou (2013) Huang (2011) Shinkle, Kriauciunas and Hundley (2013) argued that conditions which favour cost leadership strategies were independent conditions that might favour differentiation strategies. Others (Parnell, 2013; Manev-Azorin & Claver-Cortés, 2009) argue that combining elements of both generic competitive strategies, simultaneously lead to better performance. The study therefore conceptualized that combining all three competitive strategies have an effect on firm's performance.

2.3.2 Total Quality Management Practices

TQM is an action plan to produce and deliver commodities or services which are consistent with customer needs or requirements by better, cheaper, faster, safer, easier processing than competitors with the participation of all employees under top management leadership. TQM extends beyond the reconstruction of quality standard techniques, it can be seen as system approach which is an integral part of organization strategy aimed at people focused management featuring participation of all firm members and a culture of cooperation to create value for all stakeholders. TQM is employed by the firm's management with aim of providing better value to customers by recognising their observable and hidden needs and improving efficiency of the procedures that generate the product or service. Before an organization can benefit from TQM implementation some the following human resources principles would have to be enshrined into the organization culture; this including the following; Top management commitment; Organizational Leadership; Employee empowerment, Education and training.

Another principle that will affect its performance is customer management. This construct examines how the organization; builds relationships with customers; determines customers' requirements and expectations; measures their satisfaction and uses the feedback of customers in improving quality services. Customer relationship management programmes can be used for creating, maintaining and developing effective relationships with customers. Customer involvement in organization planning, monitoring and evaluation is a necessity.

TQM extends the concept of quality to a company's suppliers. The philosophy of TQM extends the concept of quality to suppliers and ensures that they engage in the same quality practices. Suppliers can make a substantial contribution to quality achievement through supplying high-quality and defect-free materials. Collaboration with suppliers is a key TQM practice.

Quality product comes from a quality process. This means that quality should be built into the process. Quality at the source is the belief that it is far better to uncover the source of quality problems and correct it than to discard defective items after production. If the source is not corrected, the problem will continue. Hence TQM focuses on studying, understanding and improving processes. Process management concerns the value adding system and involves the policies, procedures and practices that are required to control the process. The process management construct examines how key processes are designed, implemented, managed and improved to support the organization's strategy and action plan. TQM emphasizes on continuous process improvement, this involves ongoing activities aimed at process simplification and reduction or elimination of process waste. It systematically seeks to achieve small, incremental changes in processes in order to improve efficiency and quality. This study conceptualizes that both TQM and generic strategies have an influence on firm's performance using all four dimensions of the balance scorecard that is financial performance; customer satisfaction; process improvement and organization learning and growth. However, TQM mediates the relationship between generic strategies and firm's performance.

2.3.4 Organization Performance

Kaplan and Norton (1992) introduced the balanced scorecard approach to measure performance. This framework has been adopted and applied by hundreds of organizations worldwide. The balanced scorecard integrates financial and non-financial based performance measures allowing the manager to measure performance from several perspectives simultaneously. The balanced scorecard metrics includes financial measures that tell the results of actions already taken. It also comprises of three sets of operational measures having to do with customer satisfaction, internal processes and the organization ability to learn and improve the activities that drives future financial performance.

To measure organization performance, the study adopted a balance scorecard performance metrics. According to Madsen and Stenheim (2014) Financial metric is the ultimate measure of a firm's performance as it helps to determine whether a firm's strategy and execution are supporting the overall mission of the firm. The financial measures focused on profitability and market share. Customer satisfaction is directly related to profitability of the organization, under this measure the study focused on customer loyalty, customer retention and customer acquisition. The study also measured the extend which internal process have improved, the main focus as recommended by Bose and Thomas (2007) was on activities that enhances customer satisfaction, innovation and learning; to improve the skills of employees and to achieve superior internal business process. Learning and growth perspective is particularly important for strategic management to identify, improve and better the performance of intellectual capital and is critical to develop innovative product design, product, distribution and promotion and to improve the market value of an organization beyond the value of intangible asset base. Adapting a balanced scorecard approach provides a holistic performance outlook that ensured that the researcher focuses on the entire business process and both current business activities and events contributes to customer values and to the long-term organization strategy are measured.

2.4 Empirical Review

The following review of literature focus on empirical findings from past studies in the fields of Generic strategies and TQM. Literature reviews and empirical studies using qualitative and quantitative methods from journal publications books and reports are included

2.4.1 Generic strategies

Competitive strategy is basically concerned with the patterns of decisions or choices that managers of firms make over which market to compete in and how the business can add more value for buyers in order to gain more advantage than competitors (Acquaah & Agyapong, 2015). Porter (1980) generic competitive strategy posits that an organization can generate competitive advantage and ostensibly maximize performance either through cost-leadership, differentiation or a market focus strategy. These three generic strategies were defined along two dimensions' strategic scope and strategic strength. Strategic scope is a demand-sided dimension and looked at the size and composition of the target market while strategic strength is a supply-sided dimension and looks at the strength of core competency of the firm. Porter (1980) in particular identified two competencies that he felt were most important product differentiation and product cost (Tanwa, 2013). Porter (1980) further explains that if sometimes a firm can successfully pursue more than one approach as its primary target, it is rarely possible. This is because effective implementation of any of these strategies usually requires total commitment and supporting arrangements that are diluted if there is more than one primary target (Furrer, Sudharshan, Thomas & Alexandre, 2008).

Following Porter's early work numerous studies have found a positive relationship between generic strategies and firm's performance (Tansey, Spillane & Meng, 2014). More recent studies also show a link between strategy type and organization performance. Banker, Mashruwala and Tripathy (2014), utilized the profit impact of marketing strategies database to analyse Porter's (1980) theory and found evidence of higher performance in terms of market share and profits, for firms following both differentiating and cost leadership strategies. Banker et al. (2014)

further investigated the relationship between strategic positioning of firms and the sustainability of firm performance. The study found out that pursuing a differentiation strategy leads to more sustainable financial performance Compared to following cost leadership strategy. The findings indicated that both cost leadership and differentiation strategies have a positive contemporaneous performance. However, the differentiation strategy allows a firm to sustain its current performance in the future to a greater extent than a cost leadership strategy. However, differentiation strategy was associated with greater systematic risk and more unstable performance. Nandakumar, Ghobadian and O'Regan (2010), examined the relations between Porter's (1980) generics strategies in explaining the difference in performance in manufacturing organizations in UK the findings indicated that firms adopting cost leadership and differentiation performed better than stuck in the middle firms which do not have a dominant strategic orientation. This study provided support that for Porter's view that combination strategies are unlikely to be effective in organizations, however cost leadership and differentiation strategies were not strongly correlated with financial performance measures indicating limitation in Porter's generic strategies in explaining performance heterogeneity in organizations.

In Kenya a Study by Kisaka and Okibo (2014) on the effects of generic strategies on the expansion of academics programmes for competitive advantage found out that market focus and differentiation strategies had a positive correlation with the expansion of academic programmes moreover combining them had an effect on increasing competitive advantage of the university. Arasa and Gathiji (2014) examined the relationship between competitive strategies and organization performance among firms in Kenya mobile telecommunication industry the study revealed that product differentiation and low cost leadership are the most commonly used strategies the study concluded that these strategies had an effect on sales, market share, customer retention, profit and product innovation. Matunga and Minja (2014) established that the use of generic strategies by food and beverage firms in Kenya led to sustainable competitive advantage found that companies adopted generic strategies to ensure survival and diversify risk especially in competitive environment like that of the Kenya food and beverage industry.

2.4.2 Cost Leadership Strategy

The focus of firms implementing a cost leadership strategy is on stringent cost control and efficiency in all areas of operations. A cost leadership strategy emphasizes on creating competitive advantage through generating and maintaining low-cost positions relative to competitors (Porter, 1980). Cost leadership strategy is an integrated set of actions taken to produce goods or services with features that are acceptable to customers at the lowest cost relative to that of competitors. A cost leadership strategy is characterized by tight control of costs and overheads; minimization of operational costs and a reduction of labour and input costs (Acquaah & Agyapong, 2015; Porter, 1985). This includes organizing and managing its value adding activities so as to produce a product (good or service) at lower cost than competitors; providing a standard, no frills, and high volume product at the cheapest prices to customers; favourable access to raw materials; accurate demand forecasting combined with high capacity utilization; economies of scale; technological advantages; outsourcing and learning /experience. As a result, the firm can keep prices low and attract a market segment of the market interested in inexpensive products.

This strategy enables a firm to effectively defend itself in price wars, attack competitors on price, gain market share if already dominant in the industry and benefits from supernormal profits. Barney and Hesterley (2006) affirms that few layers in reporting structure; simple reporting relationships, small corporate staff, and focus on narrow range of business are elements of organization structure that allows firms to realize the full potential of cost leadership strategies. Empirical studies show that the implementation of cost leadership strategy enhances the performance in both small and large businesses (Agyapong & Boamah, 2013; Tanwa, 2013). Birjandi, Jahromi, Darabi and Birjandi (2014) study on the effect of cost leadership strategy on Rate of Return on Assets (ROA) and future performance of companies in Tehran stock exchange results indicated that firm that adapted cost leadership strategy experienced positive relationship between the ratios of sales to capital expenditure with percentage growth in sales. Chang, Fernando and Tripathy (2015) empirical study of strategic positioning and production efficiency revealed

that Firms which pursued cost leadership strategy were associated with high production efficiency. Kaliappen and Hilman (2014) examined the effect of cost leadership strategy on organization performance in context of hotel industry in Malaysia. Adapting Kaplan and Norton (1992) balance score card to measure organization performance findings revealed that cost leadership strategy has a positive significant effect on organization performance.

Nyauncho and Nyagara (2015) investigated the effect of cost leadership strategy on performance of liquefied petroleum gas companies in Kenya using financial measure. The study established cost leadership enables the company to reduce price leading to high volume of sales visa-visa profit margin, increased service delivery, less return inwards, reduced operational costs and reduced wastages. Atikiya, Mukulu, Kihoro and Waganjo, (2015) examined the effect of cost leadership on performance of manufacturing firm in Kenya, the findings of their study revealed that manufacturing firms in Kenya were positively significantly influenced by cost leadership strategy. The study further revealed that manufacturing firms adopt a cost leadership strategy to increase their competitiveness and performance. Studies by Atikiya et al. (2015), Matunga and Minja (2014) considered competitive pricing and efficiency as important constituents of cost leadership strategies in Kenyan manufacturing industry.

2.4.3 Differentiation Strategy

Differentiation strategy involves creating market positions that is perceived as being unique industry wide and that is sustainable overlong run (Porter, 1980). In a differentiation strategies emphasis is on creating value through uniqueness achieved through services innovations, superior services, creative advertising, better supplier relationships, better product performance, design, brand image and control of distribution channels leading to better services or in an almost unlimited number of ways. Firms following a differentiation strategy appeals to a sophisticated or knowledgeable consumer interested in a unique or quality product. The uniqueness of differentiation strategy permits the organization to charge premium prices for its products and/or services.

Empirical evidence shows that adapting a differentiation strategy positively influences performance (Agyapaong & Boamah 2013; Li et al., 2006; Tanwa, 2013). Davcik and Sharma (2015) examined the impact of product differentiation, marketing investment and brand equity on pricing strategies; using a cluster analysis revealed that brand equity, marketing investment and product differentiation are closely associated with price and that the premium price is significantly associated with product differentiation based on innovation and company type. Shafiwu and Mohammed (2013) examined the effect of product differentiations on profitability in the petroleum industry in Ghana. Measuring profitability in terms of earning per share and profit margin the study found that there was a positive relationship between product differentiation and profitability in Total Ghana limited. Al-alak and Tarabieh (2011) paper examined the relationship between customer orientation, innovation differentiation, and market differentiation and organization performance in the banking industry in Jordan. Organization performance was measured using market performance. The study showed that customer orientation contributes positively to organization performance through innovation differentiation and market differentiation. The study further revealed that; the impact of innovation differentiation on organization performance is greater than the impact market differentiation on performance and both innovation differentiation and market differentiation simultaneously achieve greater competitive advantage. A study by Atikiya *et al.* (2015) considered brand loyalty and product/process innovation as important components of differentiation strategy in the Kenyan manufacturing industry.

2.4.4 Market Focus strategy

This strategy is also known as segmentation strategy or niche strategy. In the focus strategy a firm targets a specific segment of the market (Arasa & Gathinji, 2014). The firm can choose to focus on a selected customer group, product range geographical or service line. Firms pursuing focus strategies have to be able to identify their target market segment assess and meet the needs and desires of buyers in the segment better than any other competitors (Porter, 1980). It is hoped that by focusing its marketing efforts on one or two narrow market segments and tailoring

its marketing mix to these specialized markets the firm can meet the needs of the target market better and become less vulnerable to competition from rivals or substitute. Focus strategies can be based on differentiation or lowest cost (Porter, 1980). The choice of offering low prices or differentiated products or services should depend on the needs of segments and the resources and capabilities of the firm. The firm typically looks to gain competitive advantage through product innovation and or brand marketing rather than efficiency. Focusing is based on adopting a narrow competitive scope within an industry aimed at growing market share through operating in a niche market or in market either not attractive to or overlooked by large competitors (Allen & Helms, 2006). Researchers have found support for Porters (1980) market focus strategy. Onaolapo, Salami and Oyedokun (2011) study examined the impact of market segmentation practices on performance of selected Nigerian commercial banks and the findings showed that marketing segmentation benefited some sections of the industry more than others, thus enabling dominance of the market share and customer patronage.

Mbithi, Muturi and Rambo (2015) investigated the performance implications of using two marketing strategy approaches; developing new market segments and extending geographically in the Kenyan sugar industry. The findings showed that developing new segments influenced sales volumes which positively affected firm's profitability. Asiedu (2016) assessed the use and impact of market segmentation practices on banks performance in Colombia. The study revealed that banks that have adapted this strategy dominated the markets, retained their customer and their profits were higher than those who had not adopted market focus (market segmentation) strategy. Kimani and Wagoki (2015) assessed strategies for gaining competitive advantage in insurance firms in Kenya with specific focus on generic strategies. The study found out that market focus strategies have a positive effect on the performance of insurance firms in Kenya. Atikya et al. (2015) considered, speciality of product as a vital component of market focus strategy in the Kenyan manufacturing industry.

2.4.1 Total Quality Management, Generic Strategies and Firm's Performance

The link between organization strategy, structure and performance is a classical theme in strategic management; organization strategy determines organization structure which in turn influences organization performance. The success of generic strategies is affected by extend of which TQM implementation influence the effectiveness of the organization structure. Porter (1980) emphasized that each strategy requires different resources and organization arrangements to be successful in achieving the primary goal of strategy. Prajogo and Sohal (2006) identified that TQM is positively related to innovation performance because it establishes a system and culture that will provide a fertile environment for organizations to innovate as a result it enhances the performance of a differentiation strategy.

According to Faezi (2014) TQM content could be divided into two categories customer orientation and process orientation. With customer orientation, an organization focuses on gaining market advantage where they can outperform their competitor in terms of attracting more customers with distinguished products and charge premium prices. This view suggests that under customer orientation TQM is associated with differentiation strategy (Prajogo & Sohal, 2006) and market focus strategy. On the other hand, under process orientation, companies will pursue process efficiency improvement to eliminate defects and wastes (Zatzick et al., 2012). The concept of continuous improvement elevates the importance of cost reduction through defect preventions, a fundamental premise of TQM is that the cost of poor quality (such as inspection, rework, lost customer and so on) are greater than the cost of developing processes that produce high quality products and services (Chaudary et al., 2015). TQM implementation eventually leads to cost leadership strategy. By focusing process orientation TQM is closely linked to porters cost leadership strategy.

2.4.2 TQM, Cost Leadership Strategy and Firm's Performance

Cost leadership strategy is implemented when company's product or services are produced more efficiently than competitors. The low cost advantages could come from new process, innovation, better learning curve, new service design, less

time/cost, and fully reengineering activities based on economies of scale (Acquaah & Agyapong, 2015) and if this is not the case companies follow this strategy can reduce any activity that does not create a cost advantage and delegate such responsibility to companies they outsource the activity from (Porter, 1980). Through the concept of continuous improvement, TQM focuses on studying, understanding improving the processes. Process management construct examines how key processes are designed, implemented managed and improved to support the organizations strategy and action plans (Oakland, 2014). A fundamental principle of TQM is that the cost of poor Quality (such as inspection, rework, lost customers and so on) are far greater than the cost of developing process that produce high quality products and services (Koc, 2011). By focusing on process innovation TQM can be linked to porters cost leadership strategy.

Another strong association between TQM and cost leadership is through supplier management. It involves developing partnership with key suppliers to reduce costs, and create value to both parties based on mutual commitment on long-term collaborations and shared success (Lambert & Schwieterman, 2012). Chaudary et al. (2015) advocates TQM implementation to improve quality, shrink's costs and thus yields a positive outcome for financial performance. The fundamental theoretical foundation for the link between effective TQM and financial performance relies on reducing costs through product design efficiency. Prajogo and Sohal (2006) have posited that TQM could be used in a different strategic context including enhancing the performance of cost leadership strategy.

Empirical studies show positive relationship between TQM and cost reduction; Ayandele and Akpan (2015) study on the practice, challenges and benefits of TQM in Nigeria manufacturing firm revealed significant reduction in operating expenses and manufacturing costs were recorded by firms that implemented TQM. Madar (2015) investigated the implementation of TQM in British Airways. The study revealed that TQM has an important role in British Airways and its implementation continuously improve British Airways performance, it enabled British Airways to meet its internal and external client's needs in terms of service and product quality

and also enable it to develop an efficient and profitable business through cost reduction.

2.4.3 TQM, Market Focus Strategy and Firm's Performance

According to porter (1980) a focus market starts by choosing a market niche where buyers have distinctive preference or requirement. The basis for competitive advantage is either lower cost than competitors in serving the market niche or on the ability to offer niche members something different from other competitors. Focus-cost leadership factor emphasizes on reducing costs while at the same time meeting the needs of undeveloped niche while the Focus-Product differentiation factor emphasizes a uniqueness of a product or service and an attempt to make the product or service special in the mind of the custom but to a smaller, possibly undefined or overlooked speciality Niche (Allen & Helms, 2006).

TQM is a platform for the full realization of marketing potentials by revitalising the marketing concept and fostering its implementation. TQM and marketing are complementary and synergistic in facilitating efficient management of the process of value creation and delivery. According to Oakland (2014) the main focus for TQM is to establish a management system and corporate culture to ensure that customer satisfaction is enhanced which involves a systematic method of continuous improvement of organization processes, resulting in high quality products and service. Su, Tsai and Hsu (2010), posits that Customer-oriented culture is essential for quality and extension of customer-knowledge creation and dissemination, and increasing responsiveness to customer needs. Possessing customer knowledge will assist an organization to access new customer segments achieving customer loyalty among its clients and provide customised products or services that mirror customer needs. Organization that implement TQM in their strategy and corporate culture are by nature, market oriented organizations. Wang, Chen, and Chen (2012) posits that total quality management (TQM) and market orientation both focus on customer needs and satisfaction. Market-oriented firms have been shown to be successful at maintaining strong competitive positions over time and TQM-adopting firms obtain a competitive advantage over firms that do

not adopt TQM (Vanichchnchai & Igel, 2011; Akgün, Ince, Imamoglu, Kekskin & Kocoglu, 2014).

Scholars (Gilanina & Talab, 2013) have investigated the relationship between TQM and marketing orientation but none have explored the relationship between TQM and market focus. However, the two concepts market orientation and market focus are closely related. According to Webster and Curry (2016) Market orientation is described as an organization culture in which everyone in the organization is committed to the customer and adapts in a timely manner to meeting the changing needs of the customers, it blends a company culture dedicated to providing superior value with successful achieving a customer focus, acquiring competitor intelligence and maintaining inter-functional coordination. which is also consistent with Porters (1980) perspective on the generic market focus strategy the market oriented businesses achieve differentiation from better meeting the needs of particular target or lower costs in serving the target or both similar to market focus.

Samat, Ramayah and Saad (2006) explored the relationship between TQM practices and service quality as well as the relationship between TQM practices and market orientation. The results showed that employee empowerment, information and communication, customer focus and continuous improvement had a significant effect on service quality and employee empowerment and customer focus had a significant effect on market orientation. Teleghani, Gilanina and Talab (2013) investigated the relationship between TQM and market orientation and performance they concluded that organizations that successfully implemented TQM have better and effective performance, market orientation has strongly and positively relationship with performance and finally Total quality management and market oriented both lead to superior quality.

Hang and Cheng (2011); Demirbag *et al.* (2006) and Pour *et al.* (2010) as cited by Teleghani *et al.* (2013) studied the relationship between TQM market orientation and firm performance the outcome shows that TQM had a positive impact on performance and market orientation has a positive effect on performance. Mehra and Ranganathan (2008) examined the role of total quality management (TQM)

towards enhancing customer satisfaction. It is found that TQM substantially increases customer satisfaction across diverse industrial and cultural settings. TQM principles mediate the relationship between market focus strategy and firm growth of market share and financial performance, by developing unique products and fostering an environment for innovation (Prajogo & Sohal, 2006) and by improving efficiencies hence reducing costs.

2.4.4 TQM, Differentiation Strategy and Firm's Strategy

Differentiation strategy aims to produce better products or services to satisfy the customer needs. This strategy includes creating differentiated products or services provided by a firm that are different from products and services of competitors; the product and services must be accepted as unique and different from any product or service which serve the same purpose in the market (Porter, 1980). Firms that adopting differentiation strategy place strong emphasis on research and development and venturing into new markets. Munisu (2013) emphasizes on significant relationship between differentiation strategy and product quality, he argued that quality is an aspect of differentiation along with design, style or technological innovation. Therefore, Organizations can charge premium prices and increase its profits margin on sales and return on investment, if they can be able to offer the high-quality products consistently.

Companies that implement TQM have to explore and find ways to serve customers expectations at their best. This creates the impetus for companies to be innovative in developing and launching new products or services to match customers' needs. Several studies have identified positive relationship between TQM and innovation (Hung, Lien, Fang & McLean, 2010; Lee, Ooi, Tan & Chong, 2010). Arguments proposing a positive relationship between TQM and innovation posited that companies implementing TQM in their business systems and corporate culture are fertile environments because TQM promotes principles coincident with innovation (Prajogo & Sohal, 2006). Total quality management culture requires changes in manager's employees believe attitude and behaviours to focus on continuous improvement. This require commitment to a culture emphasising trust,

empowerment, entrepreneurship, teamwork cooperation, risk taking and continuous improvement (Kaluarachi, 2010) hence innovation success.

Mielgo, Poen-Monters and Ordas-Vazquez (2009) study demonstrated the relationship between TQM elements and innovation. TQM elements leadership and Customer-orientation encourages employees to suggest innovative; leadership encourages generation of ideas from employees for solving problems or developing new products while Customer-orientation encourages organizations to search consistently for new customer needs and expectations, so companies can survive in this globally competitive environment. Martinez-Costa and Martinez-Lorente (2007) emphasizes that TQM principle Continuous improvement is also critical to the success of innovation through encourages changes and creative in organizing works. Sadikoglu and Zehir (2010) study found that all elements of TQM are significantly and positively associated with innovative performance. Empirical Literature commonly agrees that there is a positive association between innovation particularly product innovation and differentiation strategy (Prajogo & Sohal, 2006).

2.6 Critical Review

Prajogo and Sohal (2006) examined the fit of TQM on the relationship between organization strategy and organization performance in Australian firms. By examining TQM in relation to organization strategy, the findings indicate that TQM is positively and significantly related to differentiation strategy and it only partially mediates the relationship between differentiation strategy and three performance measures product quality, product innovation, and process innovation. However, this study was carried out in Australia a developed country the findings may not be the same in Kenya a developing economy in sub-Saharan Africa. The study mainly focused on innovation as a measure of performance ignoring other performance measures.

Zatzick et al. (2012) explored the fit with the organization orientation relates to performance following TQM implementation in USA. Conceptualizing an organization as a system of interrelated activities; they proposed that TQM acting

as an elaborate element that achieves internal fit; when the core activities are oriented towards cost rather than differentiation strategic position. When internal fit occurs TQM drives tighter interactions among core elements in activity systems resulting to greater performance. Their findings show that TQM is positively related to performance for cost leaders and negatively related to performance of differentiators. Their findings support contingency perspective where internal fit serves as an overarching contextual factor influencing TQM performance. This study covered only two generic strategies cost leadership and differentiation study the third generic strategy market focus as a strategy was not investigated.

Faezi (2014) investigate the relationship between criteria of differentiation strategy and cost leadership with TQM in pharmaceutical companies in Iran. The study found that TQM has a significant relationship with differentiation strategy. On the other side result did not show any positive relationship between TQM and cost control. This study was carried out in an environment that is quite different from the Kenya environment its finding may not be the same. The study was carried out in a single unique field pharmaceutical its finding may not be universally applied in all fields of manufacturing. Herzallah, Gutierrez-Gutierrez and Munoz (2014), examined the relationship between TQM practices, competitive strategies cost leadership and differentiation and firms performance in the Palestinian economy. The findings indicated that TQM practices were directly related to financial performance. The study only focused on financial performance and ignored non-financial measures.

2.6.1 Summary of Knowledge gaps

Table 2.1: Summary of Knowledge Gaps

Researcher	Focus	Findings	Knowledge gaps	Addressing knowledge Gaps in the current study
Faezi (2014)	Investigated the relationship between standards of differentiation strategy and cost leadership with comprehensive quality management in medic firms	TQM has a significant relationship with differentiation strategy, on the other side results did not show any positive relationship between TQM and cost leadership strategy	The study is narrowed to pharmaceutical firms only.	This study covers all manufacturing firms.
Herzallah, Gutierrez-Gutierrez and Munoz, (2014).	Examined the relationship between TQM practices, competitive strategies and financial performance.	The results showed that TQM practice have an indirect, positive and significance relationship with competitive strategies and financial performance	The study does not measure performance using non-financial measures	This study uses both financial and non-financial measures.
Munisu, (2013)	Tested the effect of TQM practices on organization competitive advantage and	The findings showed that TQM has a positive and significant effect on both	The study is narrowed to the fishing industry in Indonesia. The findings may	This study was carried out in the Kenyan manufacturing industry.

	subsequently performance of an organization.	organization performance and competitive advantage	not be applicable in the Kenyan industry	
Prajogo and Sohal (2006)	Examined the relationship between organization strategy, total quality management and organization performance	TQM positively and significantly relate to differentiation strategy and it partially affects the relationship between differentiation strategy and product quality, product innovation, and process innovation.	Performance in the study is measured using product quality, product innovation, and process innovation. Customer satisfaction and financial performance of organizations was not considered.	This study offers a holistic approach to performance measure. Using both financial and non-financial measures. Using customer satisfaction, organization learning and growth, process efficiency and financial performance
Zatzick, Molterno and Fang, (2012).	The study explored how best organization orientation relates to performance following TQM implementation	TQM is positively related to performance for cost leadership strategy but negatively related to the performance of differentiation strategy.	The study does not cover the effect of TQM on market focus strategy.	The study covers all the three generic strategies, cost leadership strategy, market focus strategy and differentiation strategy.

2.7 Research Gap

Past findings from studies carried out on TQM effect on performance of organization strategies have been divisive. While some researchers (Faezi, 2014; Prajogo & Sohal, 2006) have suggested that TQM could align with differentiation orientation given the intense customer focus and has no effect on cost minimization; others (Zatzick, Moliterno & Fang, 2012) argue that TQM is mostly associated with internal process improvement and cost reduction particularly in manufacturing context. They further argue that customer focus could trap organizations into captive markets where they will focus on meeting the needs of existing customers and therefore view their business only through customer's eyes as a result ignoring the unserved potential in their markets (Zatzick et al., 2012).

To further their argument whiles the link between TQM and innovation is the basis for differentiation strategy. Scholars are not in agreement about the effect of TQM on innovation. Hung et al. (2010) and Lee et al. (2010) argue that there is a positive link between TQM practice and innovation performance. The argument is on the basis that TQM is a good way to improve quality while facilitating the innovation process. Learning associated with continuous improvement helped employees to increase their knowledge of customers, competitors and markets and resulted in generating new ideas for innovative products. Other scholars (Hoang et al., 2010) emphasize the negative link between them. According to Hoang et al. (2010) the negative relationship between TQM and innovation performance is because the customer focus is concern with product conformance (product quality), but not with product newness. Finding from a study by Cole and Matsumiya (2008) also supports the motion, the study examining the impediments to radical innovation created by pursuit of quality improvement in the dynamic hi-tech sector, findings showed that risk averse quality culture adopted in Japanese hi-tech firms possibly inhibited potential radical innovation. According to Martinez- Costa and Martinez-Lorente (2007) TQM can lead organizations to be narrow-minded and hinder creativity due to the enforcement standardization.

Similarly studies on the effect of TQM on cost leadership strategy and firm's performance have been divisive. Scholars (Prajogo & Sohal, 2006; Faezi, 2014) studies on the effect of TQM on the relationship between cost leadership and firm's performance did not find significance relationship between TQM and cost reduction. While Zatzick *et al.* (2012) found a positive significance relationship on the effect of TQM on the relationship between cost leadership strategy on firms' performance. There is need to resolve the inconsistencies which have appeared in the literature concerning the relationship among generic strategies. Similar Studies carried out (Prajogo & Sohal, 2006; Faezi, 2014; Zatzick *et al.*, 2012) have examined the relationship between TQM and two generic strategies. Cost leadership strategy and differentiation strategy. There is need to examine the effect of TQM on market focus strategy's performance necessitating the need for this study. Furthermore, the focus of these studies has been in developed countries; Prajogo and Sohal (2006) study was carried out in Australia while Zatzick *et al.* (2012) study was carried out in USA hence their findings may not be applicable in Kenya today.

This study therefore intends to fill these pertinent gaps in literature by studying TQM Mediating effect on the performance of the three generic strategies (cost leadership, market focus strategy and differentiation strategy) on the performance of manufacturing firms in Kenya. This study adds value to existing literature by providing empirical evidence on the Mediating effect of TQM on the relationship between generic strategies and firm's performance in the Kenyan manufacturing sector and fills the existing contextual and conceptual gaps.

2.8 Summary

A review of literature on the relationship between generic strategies and organization performance reveal that there is a significant positive relationship between generic strategies cost leadership strategy, market focus strategy, and differentiation strategy and firms performance. Studies have also proven that TQM have a direct positive relationship with firm's performance in form of financial performance, innovation and growth of markets share. On the mediating effect of

TQM on the performance of generic strategies studies revealed that continuous process improvement was closely related to cost leadership strategy since it enhances cost reduction by improving efficiency in processes and eliminate waste. Studies also identified supplier management and outsourcing as means of reducing costs and resulting to cost leadership strategy.

Customer focus another principle of TQM was identified in studies as closely related to market focus strategy and differentiation strategy. Customer focus coupled with TQM culture of employee empowerment and top leadership commitment; were identified as principles that create a fertile culture for innovation leading to product and service differentiation. Studies also closely linked Customer focus with market focus strategy. Customer focus resulted to Customer-oriented culture essential for quality and extension of customer-knowledge creation and dissemination, and increasing responsiveness to customer needs. Possessing customer knowledge was revealed as means to assist an organization to access new customer segments achieving customer loyalty among its clients and provide customised products or services that mirror customer needs hence enhancing the performance of market focus strategy.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discuss the research design and methodology used in this research. More specifically it outlines the research philosophy, research design, target population, sampling methodology, data collection procedures and instruments, pilot test, data processing and analysis. This chapter also explain and rationalize the statistical techniques that were used for data analysis. Muhammad and Supinit (2016) defined research methodology as a systematic theoretical analysis of the methods applied to a field of study, it consists the theoretical analysis of the body of methods and principles associated with a branch of knowledge; methodology is essential in gathering relevant information thereby giving effective and reliable representation. The study adopted both qualitative and quantitative approaches to research.

3.2 Research Philosophy

A research philosophy reflects the researcher's perspective in interpreting of phenomena and it depends on how he/she thinks about the development of knowledge. Related literature classifies research according to perception of the world into different philosophies (such as critical realism, positivism, pragmatic, postmodernism and pragmatism) (Saunders, Lewis & Thornhill, 2009). The two major paradigms adopted in research are Positivism and Phenomenological approaches (Masadeh, 2012). The study adopted a positivist research philosophy. Positivism is developed from existing theory with a logical manner through highly structured empirical testing of hypothesis. This approach to research is based on knowledge gained from positive verification of observable experience rather than intuition. According to Hesse-Biber and Leavy (2011). Positivist holds that there is a knowledge reality that exists independent of research process; the social world like the natural world is governed by rules which results to patterns accordingly causal relationship exists between variables and can be identified, proven and

explained. Thus, patterned social reality is predictable and can potentially be controlled.

3.3 Research Design

A research design constitutes the blue print for collection, measurement and analysis of data. It is the process that the investigator followed from the inception to completion of the study (Mugenda & Mugenda, 2011; Mugenda, 2011). Cooper and Schindler (2011) defined research design as the plan and structure of instigating conceived so as to obtain answers to questions. According to Kothari (2011) research design is a master plan that specifies methods and procedures for collection and analysing the needed information. Research design therefore is a road map of how one goes about answering the research questions.

This study adopted a descriptive research design. This research design is used when data is collected to describe people, organizations, settings or phenomena (Creswell, 2014). It is ideal for gathering original data for the purpose of describing certain perceptions, opinions, attitudes, relationships and orientations that are held by a population too large to observe directly. The descriptive research design enables the researcher to obtain in-depth information, which can be used to facilitate the generalization of one's findings to the larger population (Pietersen & Maree, 2007). According to Kothari (2011) descriptive research design also has enough provision for protection against biasness and maximizes the reliability of the data collected. The descriptive survey strategy is therefore chosen as the most appropriate method that would provide a broad overview of a sample representing Kenyan manufacturers.

Descriptive research survey using both qualitative and quantitative approaches is recommended for this study. A quantitative research refers to the systematic investigation of scientific or mathematical properties and their relationship while qualitative approach refers to the in-depth investigation that is more descriptive than numerical (Saunders et al., 2009). Qualitative and quantitative techniques provide a trade-off between depth and breadth and between generalizability and targeting specific populations. Each technique has its advantages and disadvantages

(Kumar, 2011). A combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than using either approach alone (Creswell, 2014).

3.4 Target population

This is the total collection of elements about which the researcher wishes to make some inferences (Cooper & Schindler, 2011; Kothari, 2011). Sekaran and Bougie (2011) defines population as a total collection of elements about which references are made and refer to all possible cases which are of interest to the study. This includes people or items with the characteristics one wishes to understand. The study focuses on all ISO certified manufacturing firms in Kenya. Data from Kenya Bureau of Standards shows there are 39 manufacturing firms in Kenya that are ISO certified. The target population for the study is 117 three middle level managers in 39 ISO Certified manufacturing firms in Kenya (Appendix II). The CEO's / human resource managers, strategic/Marketing managers and Quality assurance managers

3.5 Sampling Frame

Sampling frame is a (physical) representation of all the elements in the population from which a sample is drawn (Sekaran & Bougie, 2011). Saunders *et al.* (2009) defines a sampling frame as a list of all the items where a representative sample is drawn for a purpose of carrying out a study. Upagade and Shende (2012) also refer to a sampling frame as a source list containing all names of the universe. Specifying the sample frame is crucial as it itemize all elements in the population from which a sample is obtained for analysis so as to test the research hypotheses. The elementary units or the group or cluster of such units may form the basis for sampling process in which case they are called sampling units. The sampling frame in this study was all 39 ISO certified manufacturing firms (Appendix II).

3.6 Sample Size and Sampling Technique

Sample size is the actual number of elements to be physically reached by the researcher to extract data using an appropriate data instrument. The study applied

census, each ISO certified manufacturing firms was being represented. According to Kothari (2011), a census approach is a complete enumeration of all items in the population. It is presumed that in such an inquiry when all items are covered no element of chance is left and the highest accuracy is obtained. A census has no sampling error as all members of the population are enumerated; therefore, it provides more accurate and exact information as compared to the sample which involves drawing a representative and adequate fraction of the population (Statistics Canada, 2010). A census approach therefore affords more extensive and detailed study. This method is suitable when the study population is small or manageable and therefore there is no need for a sampling survey. Since there are only 39 ISO certified manufacturing firms the census approach was seen as suitable for this study. Considering the nature of data (information) to be collected three managers (CEO/human resource manager, Strategic managers/ marketing manager, and Quality assurance managers) in each firm were used as a unit of observation to give information on behalf of the organization. This result to a total of 117 respondents.

3.7 Data collection Instruments

The primary research data was collected from the management using questionnaires. A questionnaire was perceived as the most accurate tool for measuring self-sufficiency existing relationship, objects or events as well as self-reported beliefs and behaviour. The use of questionnaire also makes it possible for descriptive, correlation and inferential statistical analysis (Saunders et al., 2009). The questionnaire allows data to be collected quickly in an efficient manner. The questionnaire used in this study merged the questionnaire used from previous studies of Dess and Devis (1984) and Powell (1995) with minor adjustments. Creswell (2014) recommend the use of previous questionnaire to assists in testing the reliability and validity of the current instrument as well as saving much time spent in developing new questionnaire. Powell (1995) questionnaire was used to measure TQM performance in the organization while Dess and Devis (1984) questionnaire was used to measure the performance of generic strategies. Dess and Devis (1984) questionnaire is a widely recommended by researchers (Luoma, 2015; Lisboa, Augusto & Yasin, 2012) likewise Powell (1995) questionnaire is popular

among researchers (Ngambi & Nkemkaifu, 2015; Hoang et al., 2010). Variables used to measure organization performance were adapted from the balance score card designed by Norton and Kaplan (1992).

Based on the nature of strategic information required for this study three types of questionnaire were administered middle level and top-level managers to different managers (that is quality assurance managers; strategic manager's/marketing managers and CEOs'/human resource managers (Appendix I). A Likert scale was employed to evaluate how each particular item was rated by the respondents in relation to a given variable investigated. A Likert scale is an ordinal scale comprising of a set of quantitative variation of a particular attribute ordered sequentially from least to most. A five-point Likert scale was used for most questions in the survey except for sections dealing with background information and a few open-ended questions. These choices represent the degree of agreement to the given question. The choices range from Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A) and Strongly Agree (SA). Likert scale is preferred as it is considered more reliable because respondents are able to easily answer all or most questions contained in the questionnaire (Kothari, 2011). Kothari (2011) further argue that the Likert scales ratings constitute interval scales attributes hence it can be evaluated easily using standard techniques. Perceived financial measure was used to measure financial performance, the degree to which a manager is satisfied with the firm's profitability and market share. This measure is preferred by respondents since objective measures such as profit or revenue are seen as confidential (Gruber, Heinemann & Bretel, 2010).

3.8 Data Collection Procedure

Creswell (2014) defines data collection as a means by which information is obtained from the selected subjects of an investigation. Secondary data used in the study was from journals and books relevant to this study. Primary data was collected from the respondents using self-administered questionnaires. The study targeted three senior managers (CEO/human resource management, Strategic manager's/marketing managers and Quality Assurance Managers) in each

organization. Those targeted were of great concern to the study because information required in this study need employees with adequate knowledge and data about the organization strategies, quality programmes and performance. Prior arrangements were made on how to get the managers out of their busy schedule to fill the questionnaires. Four trained research assistants were engaged to assist in data collection. The study utilized 117 questionnaires to collect data from 39 ISO certified manufacturing firms.

3.9 Pilot test

A pilot test was conducted to detect weaknesses in research instrumentation and to provide proxy data for selection of a probability sample. A pilot test is an activity that assist the researcher to determining if there are flaws, limitations or other weaknesses within the interview design and allows him or her to make necessary revisions prior to the implementation of the study. The rule of thumb is that 1% of the sample should constitute the pilot test (Cooper & Schilder, 2011). According to Mugenda and Mugenda (2011) one tenth of the sample size is sufficient for pilot testing. Therefore, 12 sample questionnaires were tested on 12 employees from 4 ISO certified manufacturing firms. This Pilot test was used to test the validity (Mugenda & Mugenda, 2011) and testing the reliability of data collection instruments. Few corrections were made on the data collection instrument after the pilot test.

3.9.1 Validity of data collection Instruments

Validity is the degree to which results obtained for analysis of the data actually represent the phenomena understudy. It indicates how accurate the data obtained in the study represent the variable of the study (Mugenda & Mugenda, 2011). Validity is used to check whether a questionnaire is measuring what it purports to measure. There are several forms of validity test. This study focused on two; face validity test and internal validity test. According to Drost (2011) Face validity is a subjective judgement on the operationalization of a construct. Face validity measures the extent to which a research instrument is subjectively viewed as covering the concept it purports to measure. The questionnaire was given to

expert's researchers and supervisors who assessed it and they approved that the questionnaires measures what it intends to. Internal validity test measures how well the study was run (in form of research design, operationalization of variables used, how the variable were measured and what was/wasn't measured,) and how well one can conclude that the change in the dependent variable was produced solely by the independent variable and not erroneous ones. Trochim, Donnelly and Arora (2014) defines internal validity test as the approximate truth about inferences regarding cause-effect or causal relationships. The response from the pilot test was used to improve on the final research instruments.

3.9.2 Reliability of data collection Instruments

Reliability is the extent to which results are consistent over time. This is done by determining the association in between scores obtained from different administration of the scale. If the association is high, the scale yields consistent results, thus it is reliable. Data reliability was measured using Cronbach's alpha method. The coefficient alpha is an appropriate measure of variance attributed to subjects and variance attributed to the interactions between subjects and items. Cronbach's alpha is a general form of Kuder-Richardson (K-R) 20 formula. Field (2009) observes that a Cronbach's $\alpha \geq 0.7$ implies the instrument provides a relatively good measurement tool hence reliable. The research questionnaire instrument to be used in this study was subjected to crouchback alpha test.

3.10 Factor Analysis

Factor analysis was used to reduce the number of variables by combining two or more variables into a single factor and to identify groups of inter-related variables to see how they were related to each other (Zikmund , Babin, Carr & Griffin, 2010). Both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were employed to understand shared variance of measured variables that were believed to be attributable to a factor or latent construct. EFA was used at the early stages of research in order to identify the variables that cluster together.

Principal Component Analysis (PCA) was used in factor extraction. The goal of PCA was to extract maximum variance from the data set with each component (Tabachnick & Fidell, 2013). Principal Component Analysis orthogonal rotation, Varimax methods were used to extract quality constructs for each of the variables. Varimax solution yielded results which made it easy to identify each variable with a single factor (Field, 2009). Confirmatory factor analysis (CFA) was used to test the hypothesis that the items used in measuring each objective were associated with specific factors (Hair et al., 2010). Hypothesized models were tested against actual data and the analysis used to demonstrate loadings of observed variables on the latent variables (factors) as well as the correlation between the latent variables (Zikmund et al., 2010).

3.11 Data Processing and Analysis

The data that were obtained from the questionnaires were both qualitative and quantitative. Before processing the responses, every filled questionnaire was tallied for every response per question. The responses were first edited, coded and cleaned for analysis. Qualitative data was analysed using descriptive statistics. Statistic including the mean, mode and median, variance and standard deviation were used (Mugenda, 2011). These tools were used to describe and determine the respondent's degree of agreement or disagreement with various statements under each variable (Mugenda, 2011). SPSS was used to conduct descriptive data analysis of each variable and the same was presented in form of percentages and tables. Quantitative approach involved collecting numerical data through counting of attributes or quantities. The counts were used to report the findings as numbers.

After descriptive statistics for all variables were run, data analysis was further conducted using SEM where two phase process consisting of confirmatory measurement model and structural model were used (Hair et al., 2010). The first phase involved estimation of the measurement model which assesses the relationship between the observable variables and the theoretical constructs they represent. However, prior to CFA, exploratory factor analysis (EFA) that involved computation of factor loading matrix, communality and principle component analysis (PCA) was

conducted. To assess the factorability of items, two indicators were examined (Kaiser Meyer-Olkin measure of sampling adequacy and Barlett's Test of Sphericity (Pallant, 2010). These tests were generated by SPSS and helped to assess the factorability of data or suitability of data for structure detection (Pallant, 2010). Kaiser-Meyer-Olkin (KMO) test was used to assess sampling adequacy. Bartlett test of sphericity was performed to assess the appropriateness of using factor analysis (Hair et al., 2010).

There were four criteria that were used to validate the model fit. These were convergent validity, discriminant validity, construct reliability and construct validity. Different fit statistical tests were used to determine whether the model provided adequate fit for the data. The fit was used to assess whether overall models were acceptable and if acceptable researcher establish whether specific paths were significant. In order to ascertain that the model provided adequate fit for the data, the study also considered absolute fit indices and incremental fit indices (Hair et al., 2010).

The second phase was the specification of the structural model and evaluation of the relationships proposed and testing of hypothesis. Structural equation modelling (SEM) was used to test the hypothesized relationship and to fit the structural model. SEM assumes linear relationships or unidirectional causal relationships between the research indicators and latent variables, as well as between latent variables. Path diagrams (models) were used to specify patterns of directional and non-directional relationships among observed variables. This was conducted by use of Analysis of Moment Structures (AMOS) software. The software was also used to assess the model's fit, computes results and develops a visual/graphical output (Bhattacharyya, 2007).

3.12 Model specification

The research adopted Baron and Kenny (1986) three steps approach to test the mediation effect several regression analyses were conducted and significance of the coefficients examined at each step. The Baron and Kenny (1986) approach have been widely used by scholars (Mackinnon, 2011; Pardo and Román, 2013) and was deemed suitable for this study

The first model (step) was to conduct a regression analysis with X (generic strategies) predicting Y (organization performance)

$$Y = \beta_0 + \beta_1 X + \varepsilon \quad \text{Model 1}$$

The second step was to conduct a regression analysis with X (generic strategies) predicting M (TQM performance within the organization)

$$M = \beta_0 + \beta_2 X + \varepsilon \quad \text{Model 2}$$

The third step was to conduct a regression analysis with M (TQM) predicting Y (organization performance)

$$Y = \beta_0 + \beta_3 X + \beta_4 M + \varepsilon \quad \text{Model 3}$$

Where

Y= organization performance

β_0 = constant

β_i = regression coefficient for X_i ($i = 1, 2, 3, \dots, 10$)

X = Generic strategies (cost leadership strategy, differentiation and focus strategy)

M= total quality management (mediator)

ε = error term.

If the independent variable (generic strategies) should no longer relate to the dependent variable (organization performance) after the mediator variable TQM is controlled, such that its regression coefficient beta in the third step is not significant. This condition shows that the relationship between generic strategies and organization performance examined under the first condition disappears when the

mediated effect transmitted through TQM is taken into account Satisfying all the four conditions provides evidence for complete mediation, where as satisfying three conditions indicate partial mediation.

3.13 Diagnostics Tests

The model was subjected to preliminary tests to establish its validity and to enable one to draw conclusion. Prior to data analysis, a number of assumptions were tested. Those included; outlier, normality, linearity, homoscedasticity, multicollinearity, independence of residuals, common method bias and correlation among study variables. When these assumptions are violated, the study results are likely to give biased estimates of the parameters (Saunders, Lewis & Thornhill, 2009).

An outlier is any observation that is long away from the general pattern of distribution of variables (Creswell, 2014). In a specific regression case of regression model, outliers are observations that are long away from the fitted line. The presence of outliers was detected by use of Mahalanobis d-square test. Linearity means that the amount of change or rate of change between scores on two sets of variables is constant for the entire range of scores for the variables. It is therefore the consistent slope of change that represents the relationship between an independent variable and a dependent variable. Problem of linearity are fixed by removing outliers (Creswell, 2014). The study assumed linearity of the variables because outliers had been dropped. Similarly, Breusch-Pagan and Koenker test statistics was used to test for heteroscedasticity.

The test for normality of dependent variable was conducted Kolmogorov-Sminov and Shapiro-Wilk test for normality were used to detect all departures from normality (Shapiro & Wilk, 1965). The test rejects the hypothesis of normality when the p-value is less than or equal to 0.05 (Shapiro & Wilk, 1965). Multicollinearity is a statistical phenomenon in which two or more predictor variables in a multiple regression model are highly correlated. It arises when there is a linear relationship among two or more independent variables in a single equation model; increasing the standard errors of the coefficients (Gujarat & Porter, 2009). Multicollinearity makes the coefficient estimates to change erratically in response to small changes in the

model or the data. It makes some variables statistically insignificant while they should be statistically significant. Detection Tolerance and Variance Inflation Factor (VIF) method was used to test for multicollinearity. Multicollinearity is reflected by lower tolerance values and higher VIF values (Hair et al., 2010). According to Field (2009) a value of $VIF > 10$ indicates the presence of high collinearity implying the variable is a linear function of another variable in the same model. Related to the VIF is the tolerance statistics which is a reciprocal of $VIF(1/VIF)$ values below 0.1 indicate serious problems of multicollinearity.

Common method bias is a bias in a dataset due to something external to the measures that may have influenced the response given (Podsakoff, MacKenzie & Podsakoff, 2012). Collecting data using a single (common) method may introduce systematic response bias that will either inflate or deflate responses as majority of the variance can be explained by a single factor (Podsakoff et al., 2012). To test the significance of this indirect effect (mediation effects) bootstrapping procedures as recommended by Hayes (2013) were used. The indirect effects were computed for each 5000 bootstrapped samples.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the research findings and the result of the study. The purpose of this study was to determine the mediating effect of TQM on the relationship between generic strategies and Kenya manufacturing firm's performance. The study used generic strategies as independent variables (cost leadership, differentiation strategy and focus strategy). TQM as mediating variable and financial performance, customer satisfaction, internal process improvement and organization learning and growth as measures of organization performance. Data analysis was conducted for each of the objective by use of descriptive statistics, structure equation modelling (SEM) and regression analysis

4.1.1 Response rate

The study administered 117 questionnaires to (CEO/Human resource managers, strategic managers/Marketing managers and quality assurance managers in 39 ISO certified manufacturing firms. 102 questionnaires were properly filled and returned as shown in Table 4.1. The overall response rate was 87%. According to Kothari (2011) a response rate of 50% is considered average 60-70% is considered adequate while anything above 70% is considered a good representation to provide information for analysis. This response was therefore considered good representative to provide information for analysis and derive conclusions.

Table 4.1: Response Rate

Respondent	Frequency	percentage
Human resource/CEO	34	87%
Marketing/Strategic managers	34	87%
Quality assurance managers	34	87%
Total	102	87%

4.2 Testing the assumptions of the study variables

The assumptions of linear regression models were validated to ensure that the ordinary least squares (OLS) provide reliable estimates of the parameters, if these assumptions are violated, the study results are likely to be biased estimate of parameters (Saunders et al., 2009). The following assumptions of the study variables were tested outlier, normality, homoscedasticity, multicollinearity, independence of residuals and common method bias.

4.2.1 Test of Normality

A normality test determines if the data set is well-modelled by a normal distribution. Kolmogorov-Smirnova and Shapiro-Wilk test were conducted. This was fundamental in order to determine appropriate test to be conducted and make sure the assumptions of a normal distribution were not violated. The test rejects the hypothesis of normality when the p-value is less than or equal to 0.05 (Hair et al., 2010). The P-value for the factors were greater than 0.05 for both Kolmogorov-Smirnova and Shapiro-Wilk test. Hence the study assumed that the data was normally distributed. The results are presented in the appendix (IV).

4.2.2 Test for Outliers

An outlier is any observation that is long away from the general pattern of distribution variables and a long way from the fitted line (Creswell, 2014). The presence of outliers was tested by the use of Mahalanobis D-square test. Kline (2005) recommend that Mahalanobis distance is appropriate for evaluating the multivariate outliers. Mahalanobis D^2 is a multidimensional version of a Z-score. It measures the distance of a case from centroid (multidimensional mean) of a distribution, given the covariance (multidimensional variance) of the distribution. A case is multivariate outlier if the probability associated with D^2 is 0.01 or less. D^2 follows a chi-square distribution with degree of freedom equal to the number of variables included in the calculation (Tabchnick & Fidell, 2013). The results of mahalanobis D-square test show that the distribution ranges from 8.554 to 39.092 with P^2 values being greater than 0.01 hence suggesting incidents of multivariate

outliers are not existent. The results for mahalanobis D-square test results are presents in appendix (V.)

4.2.3 Heteroscedasticity

Heteroscedasticity is a situation where the error term is unequal across the range of values of a second variable that predicts it. OLS makes the assumption that the variance of the error term is constant (Homoscedastic). Violation of this assumptions leads to bias test statistics and confidence intervals (Hair et al., 2010). In this study heteroscedasticity was tested by performing the Breuch-pagan/Cookweisberg test. Breusch/Cook-weisberg test the null hypothesis that the error variances are equal verse the alternative hypothesis that the error covariance are multiplicative function of one or more variables. Heteroscedasticity will be evident when the value of Prob>Chi-Square is greater than 0.05 Park, 2008). The result in Table 4.2 shows Prob> Chi-square = 0.0179. Since the Prob> Chi-square value is less than 0.05 the study therefore accepts the null hypothesis the variance in the error term is constant. Hence heteroscedasticity does not exist and that the variance of the error term is constant (Homoscedastic).

Table 4.2: Heteroscedasticity

Ho	Chi²(10)	Prob> Chi²
Constant variance	5.61	0.0179

4.2.4 Multicollinearity

Multicollinearity exist when there are more than one variable measuring the same value (Hair et al., 2010). Multicollinearity is concerned with high correlations between independent variables that are supposed to predict a certain dependent variable. Existence of multicollinearity may lead to significance impact on the regression and statistics results. Multicollinearity can be detected using the value of correlations. A value of 0.8 or 0.9 shows that there is a relation of multi-collinearity

between two variables. The study examined the correlations as appears in the Pearsons correlation there is no sign of multicollinearity. The highest correlation coefficient between the variable was 0.690 which does not exceed 0.8 as suggested by Hair *et al.* (2010). These results are presented in appendix (III).

Multicollinearity existence was further examined using the variance of inflation (VIF) for independent variables The VIF indicates whether a predictor has a stronger linear relationship with the other predictors. According to Field (2009) a value of $VIF > 10$ indicates the presence of high collinearity implying the variable is a linear function of another variable in the same model. The VIF values in this case ranges from 2.070 to 3.293 which suggest that problems of multicollinearity are unlikely to occur. Related to the VIF is the tolerance statistics which is a reciprocal of VIF ($1/VIF$) values below 0.1 indicate serious problems of multicollinearity in this study the value ranges from 0. 304 to 0.482 indicating multicollinearity does not exist. The results are presented in Table 4.3

Table 4.3: Coefficient for tolerance and variance of inflation factor test

	Tolerance	VIF
CL1	.483	2.070
CL2	.304	3.293
CL3	.404	2.473
DS1	.437	2.288
DS2	.448	2.234
DS3	.378	2.644
CF1	.475	2.106
CF2	.461	2.168

4.2.5 Common Method Bias

Collecting data using a single (common) method may introduce systematic response bias that will either inflate or deflate responses. Common method bias (CMB) is used to measure bias in a dataset due to something external to the measure that may have influenced the response given (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). A study that has significant common method bias is one which a majority of the variance can be explained by a single factor. To test for a common variance among all observed variables in the model a latent factor was added to Amos CFA model and was then connected to all observed items in the model. The standardized regression weights from the model was used as a measure of CMB. The results are presented in Figure 4.1. The CMB should be less than 20% (0.200) (Podsakoff et al., 2003) in this study common bias is $0.26^2 = 0.0676$. This implies that CMB was 6.67% which was much lower than the conventional CMB of 20% (0.2). This indicates that the recommended threshold was met, thus absence of systematic response bias.

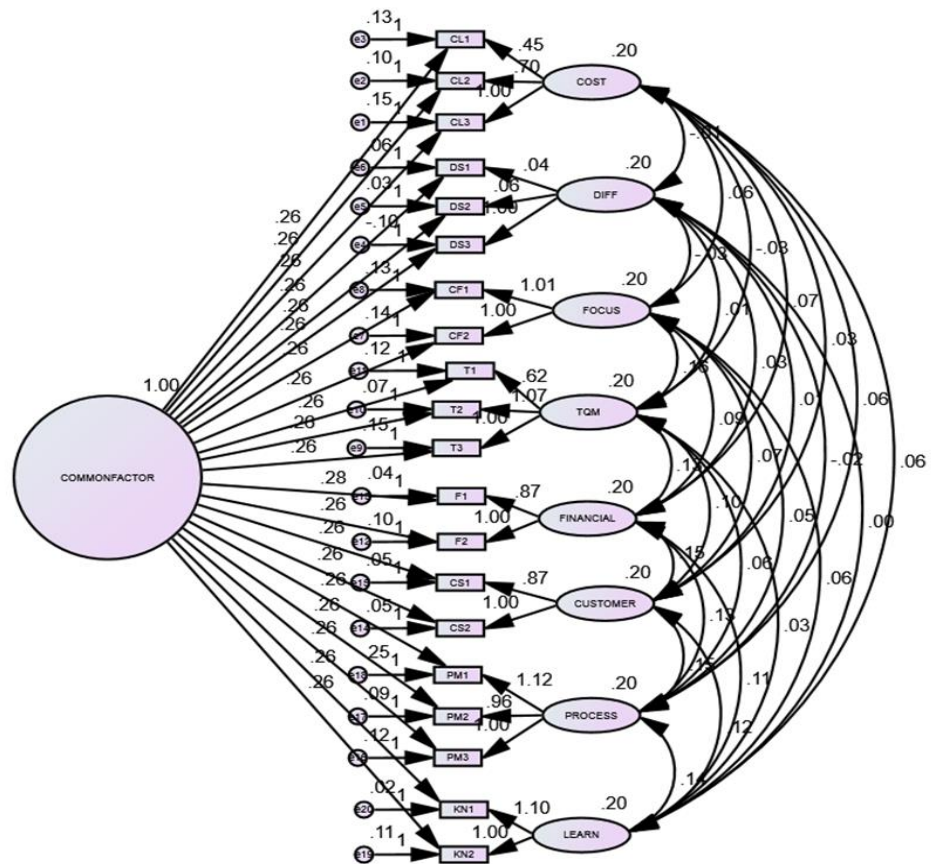


Figure 4.1: Common Bias Method

4.2.6 Convergent validity and discriminant validity.

Convergent validity is used to ensure the measurement items for relevant constructs actually measure that particular construct (Hair et al., 2010). Discriminant validity measures the uniqueness of the constructs to each other in the model (Hensley et al., 2009). Convergent validity ensures that constructs that are expected to be related are in fact related while discriminant validity test that constructs that should have no

relationship do in fact not have any relationship. Convergent validity of the measurement model can be assessed by the Average Variance Extracted (AVE). AVE measures the level of variance captured by a construct versus the level due to measurement error, values above 0.7 are considered very good, whereas, the level of 0.5 is acceptable (Hair et al.,2010). Discriminant validity can be assessed by comparing the amount of the variance capture by the construct (AVE) and the shared variance with other constructs thus the AVE for each construct should be greater than the squared correlation involving the constructs. The Table 4.4 shows the AVE values are all above 0.5 as recommended by Hair *et al.* (2010) and the squared correlations among are less than AVE values this indicates that the measuring scale exhibited adequate convergent and discriminant validity. The AVE values are (0.622; 0.874; 0.743; 0.793; 0.597;0.598 and 604) and the squared correlations values are (0.392, 0.418,0.499,0.351,0.473,0.445,0.216 0.285, 0.2130, 0.377, 0.141, 0.171, 0.127,0.293,0.342,0.278,0.319,0.171,0.354,0.334,0.264)

Table 4.4: Convergent validity and Discriminant validity

	PROCESS	LEARN	CUSTOMER	FINANCIAL	FOCUS	DIFF	COST
PROCESS	0.622						
LEARN	0.392	0.874					
CUSTOMER	0.418	0.499	0.743				
FINANCIAL	0.351	0.473	0.445	0.793			
FOCUS	0.216	0.285	0.213	0.377	0.597		
DIFF	0.141	0.171	0.127	0.293	0.342	0.598	
COST	0.278	0.319	0.171	0.354	0.334	0.264	0.604

4.2.7 Reliability results

Reliability test was conducted as a test of whether data collecting instrument yield the same results on repeated trials. The measurement of the reliability of a data instrument helps the researcher to gauge the goodness of the variable of the

measurement (Sekaran & Bougie, 2010). The widely used Cronbach coefficient alpha was employed to assess internal consistency. Bryman and Cramer (1997) stated that reliability of 0.70 Cronbach alpha is normally accepted in basic research. Zikmund *et al.* (2010) also posit that Cronbach alpha of 0.60 as a minimum is accepted. All the alpha coefficient ranged from above 0.731 to 0.895 as shown in the Table 4.5. based on the coefficient values the items tested were deemed reliable for this study.

Table 4.5: Cronbach alpha Reliability results

Variable	Number of items	Reliability Cronbach's alpha	Comment
Total quality management	9	0.786	Accepted
Cost leadership strategy	10	0.800	Accepted
Differentiation strategy	8	0.791	Accepted
Market focus strategy	7	0.790	Accepted
Financial performance	14	0.778	Accepted
Customer satisfaction	6	0.731	Accepted
Internal process performance	9	0.807	Accepted
Learning and growth	9	0.895	Accepted

4.3 Biodata of the Respondents

4.3.1 Gender

The study sought to establish the gender of the respondents involved in management of Kenyan manufacturing firms. 64.7 % of the respondents were male and 35.3% of the respondents were female. From the findings Majority of the respondents in the study were male indicating there are more male in management than women are in management in the manufacturing firms in Kenya. This result can also be attributed to the strong male domineering culture in Kenya (Karanja, 2011). These findings are also in line with ILO report (2015) which states that in Kenya women holds only 44 or 9.5% of the 462 board seats of the 55% of the companies listed at the Nairobi securities exchange (NSE).

4.3.2 Work experience

The respondents were asked to indicate the number of years they have been in management positions. It was observed that 55.9% of the respondents have been in management for 4 – 6 years, 41.2% of the respondents have been in management for more than 6 years and only 2.9 % of the respondents have been in management for less than 2 years. This indicates the respondents had a clear understanding of the organization operation and they had relevant information needed for the study

Table 4.6: Work Experience

	Frequency	Percentage	Cumulative Percent
0- 2 Years	3	2.9	2.9
4-6 Years	57	55.9	58.8
6 Years above	42	41.2	100
Total	102	100	

4.3.3 Highest level of Educational of the respondents

The educational profiles of the respondents are as presented in Table 4.7 which shows that 9.8% of the respondents were diploma holders, 62.7% of the respondents had bachelor's degrees and 27.4 % of the respondents had master's degree. This shows that majority of the respondents were highly educated and trained. This concurs the findings by Heshmati and Rashidghalam (2016) which showed that training and education were highly associated with higher labour productivity in the Kenyan manufacturing and services industry.

Table 4.7: Highest level of Education of the Respondents

	Frequency	Percentage
Diploma	10	9.8
Bachelor degree	64	62.7
Master's degree	28	27.4
Total	102	100

4.3.4 The number of competitors the organization faced

The respondents were asked to indicate the number of competitors the organization faced. Table 4.8 show that 14.7% of the manufacturing companied had less than 5 competitors, 35.3% of the respondents had between 5 – 20 competitors; 35.3% of the respondents had between 20 - 40 competitors; 8.8 % of the respondents had 40-60 competitors and 5.9% of the respondents had more than 60 competitors. This shows that competition in the manufacturing industry is high hence the need to adopt both generic strategies and TQM in the organization. These findings are consistent to the findings by African development bank group (2014) which shows that the manufacturing sector in Kenya is facing high competition both locally and internationally.

Table 4.8: The number of competitors the organization faced

Number of competitors	Frequency	Percentage	Cumulative Percentage
0 -5	15	14.7	14.7
5 -20	36	35.3	50.0
20 -40	36	35.3	85.3
40 -60	9	8.8	94.1
Above 60	6	5.9	100
Total	102	100	

4.4 Descriptive analysis

The purpose of the study was to investigate the mediating effect of TQM on the relationship between generic strategies and organization performance. Descriptive statistics for the following variables cost leadership strategy, differentiation strategy, focus strategy, total quality management and organization performance were analysed.

The study seeks to find out the extent to which the firms had implemented cost leadership strategy. The respondents were asked to rank the following statement using Likert scale. The responses were as shown in the Table 4.9.

Table 4.9: Cost Leadership Strategy

Cost leadership strategy	N	Min	Max	Mean	Std. Deviation
Most of our products are standardized	102	4.00	5.00	4.5000	0.50752
We produced in large quantities	102	2.00	5.00	4.0881	0.79268
We buy raw materials at fairly good prices	102	2.00	5.00	3.9647	0.87644
We maintain good Supplier relationships	102	2.00	5.00	3.8725	0.78651
We charge prices lower than their competitors	102	3.00	5.00	3.8599	0.65747
we emphasized on cost cutting measures	102	3.00	5.00	3.8224	0.66881
We have reduced labour input through automation	102	2.00	5.00	3.6766	0.72699
We have Integrated our supply chain with suppliers	102	2.00	5.00	3.5778	0.98610
We continuously train our employees to improve efficiency	102	2.00	5.00	3.4765	0.94595
We outsource functions to control costs.	102	2.00	5.00	3.1176	0.86936

The respondents agreed on the following statements; Most of their products are standardized (mean of 4.5000); they produced in large quantities (mean of 4.0881); they buy raw materials at fairly good prices (3.9647); they have good relationship with their suppliers (3.8725) that they charged prices lower than their competitors with (mean of 3.8599); they emphasized on cost cutting measures (mean of 3.8224); and they have reduced labour input through automation (mean of 3.6766) and lastly they agreed that they had integrated their supply chain with suppliers (3.5778). The respondents were neutral when they were asked whether they continuously train their employees to improve efficiency (mean of 3.4765) they were also neutral on whether they outsource functions to control costs (mean of 3.1176).

From the findings, it is further noted that response to the statement used to measure cost leadership strategy ranged from 4.50 to 3.11. This shows that majority of the respondents were in agreement with the statement used to measure cost leadership strategy in the organization. Similarly, the standard deviation for all the items was below 1.0. It can be deduced that the response for the item were not deviating much from the expected response. This shows that most of the manufacturing firms in Kenya have implemented, cost leadership strategy. This finding are similar to the findings of a study carried out by Mutunga and Minja (2014) which shows that 81.2 % of Kenyan food and beverage firms have implemented cost leadership strategy either exclusively or as a dual strategy with differentiation strategy.

4.4.2 Differentiation Strategy and Organization Performance

The respondents were asked to rank the following statement concerning the extent to which manufacturing firms had implemented differentiation strategy. Their responses were as presented in Table 4.10

Table 4.10: Differentiation Strategy

Differentiation strategy	N	Min	Max	Mean	Std. Deviation
Our product and service have a strong brand identity	102	3.00	5.00	4.2059	.64099
We have improved quality of customer services	102	3.00	5.00	4.0932	.43421
we meet our customer needs more than our competitor	102	2.00	5.00	3.9863	.73223
We have increased our marketing communication to differentiate ourselves	102	3.00	5.00	3.9422	.70221
We continuously develop unique products	102	3.00	5.00	3.8549	.70205
we have improved the quality of our products to distinguish ourselves	102	2.00	5.00	3.7943	.53820
We trained our employees on how to handle customers	102	2.00	5.00	3.7053	.61835
We invest in research and development	102	2.00	4.00	3.4453	.56723

The respondents agreed with the following statement concerning differentiation strategy; they had built strong brand identity (4.2059); had improved quality of customer service (4.0932); they were able to meet their customer needs more than their competitors (3.9863). They had increased marketing communication activities to distinguish themselves (3.9422); they continuously develop unique products (3.8549); they produced higher quality products to differentiate themselves (3.7943) and lastly, they trained employees on how to handle customers (3.7053). However, the respondents were neutral about the expenses spend on research and development (3.4453), this is consistent with world bank (2016) report which shows that Kenyan firms did not spend enough on research and development; On average only 0.5% of the total company expenses is spend on research and development.

From the findings of the study it is further noted that response to the statement used to measure differentiation strategy ranged from (3.4453 to 4.2059). This shows that majority of the respondents were in agreement with the statement used to measure differentiation strategy in the organization. Similarly, the standard deviation of all the items are below 1.0. It can be deduced that the response for the item were not deviating much from the expected response. This shows that most of the manufacturing firms in Kenya have implemented, differentiation strategy. The findings are consistent with the findings by Waweru (2011) which showed that 89% of firms in Kenya implemented differentiation strategy either exclusive or as a dual strategy with cost leadership. Similarly, Minja and Mutungu (2014) study in the food and beverage manufacturing industry shows similar results. That is 75% of the manufacturing firms have implemented differentiation strategy.

4.4.3 Focus Strategy and Firm's Performance

The respondents were also asked to rate the following statement concerning focus strategy. Their responses were as presented in Table 4.11.

Table 4.11: Focus Strategy

Focus strategy	N	Min	Max	Mean	Std. Deviation
Our prices are set based the products quality	102	2.00	5.00	3.8834	.80772
We quickly respond to changes in demand of our customers	102	2.00	5.00	3.8475	.95254
We meet our customer needs more than our competitors	102	2.00	5.00	3.7453	.93124
We offer tailored market communication messages to specific market segments	102	2.00	5.00	3.6472	.91725
We produce speciality products	102	2.00	5.00	3.6276	.85333
We offer customized customer services	102	2.00	5.00	3.5688	.85957
Our customers are involved in developing new products	102	2.00	5.00	3.4716	.96091

The respondents agreed that their prices are set based on products quality (3.8834). They respond to changes in demand of our customers (3.8475); they were able to meet customer needs more than their competitors (3.7453); their market communication messages were tailored to specific customer segments (3.6472); they produce speciality products (3.6276) and lastly they agreed that they offered customized customer services (3.5688); However, they were neutral on whether they involved their customers in developing new products (3.4716).

From the findings of the study it is further noted that response to the statement used to measure focus strategy ranged between (3.4716 - 3.8834). This shows that majority of the respondents were in agreement with the statement used to measure focus strategy in the organization. Similarly, the standard deviation of majority of the items is below 1.0. It can be deduced that the response for the item were not deviating much from the expected response. This shows that most of the manufacturing firms in Kenya have implemented, focus strategy. The findings are consistent with the findings by Atikiya *et al.* (2015) which showed that 23% of firms in Kenya implemented focus strategy.

4.4.4 Competitive Strategies Adopted

From the above findings, it can be noted that most manufacturing firms had adopted all the three generic strategies combined. This is in line with the work of Atikiya *et al.* (2015) which revealed that the manufacturing firms in Kenya preferred differentiation strategy as a method of obtaining competitive advantage and cost leadership enabled the manufacturing firms to expand their market share while focus strategy enabled firms to reach market segments that are not well served. This finding are also similar to Waweru (2011) which revealed that manufacturing firms in Kenya embraced a combination of cost leadership, differentiation and focus strategy simultaneously. Closely related to this are the findings by Salavou (2013) which showed that firms in Greece preferred hybrid strategies to pure strategies.

4.4.5 Total Quality Management

The study sought to find out the extent to which firms had implemented TQM. The respondents were asked to rate the following statements key to TQM implementation. Table 4.12 shows their ratings of the statements.

Table 4.12: Total Quality Management

Total quality management	N	Min	Max	Mean	Std. Deviation
We have quality Leaders who are our mentors	102	2.00	5.00	3.8935	.75761
We have implemented continuous improvement philosophy	102	2.00	5.00	3.8235	.79661
We all work together as a Team	102	2.00	5.00	3.7945	.76986
We empower our Employee through training	102	2.00	5.00	3.7853	.75111
We bench mark with the best in the industry	102	2.00	5.00	3.7677	.78079
Our top managers are commitment to TQM implementation	102	1.00	5.00	3.7637	.88963
We have reduced wastage	102	2.00	5.00	3.6376	.69695
We partner with our Suppliers	102	1.00	5.00	3.5882	.85697
We are committed to our Customer	102	1.00	5.00	3.5588	.82356

The respondents agreed the organization had quality leaders who drives its vision and mentor others (3.8935); they had implemented continuous improvement philosophy (3.8235); they empowered Employees through training (with mean of 3.7853); they benchmark with the best in the industry to enabled them to improve operation processes (mean of 3.7677); the top-level management were commitment to TQM implementation (3.7637); they were committed to zero defect philosophy (3.6376 and lastly they agreed that they were committed to their Customer (3.5588). From the findings of the study it is further noted that response to the statement used to measure the level of TQM adaptation ranged from (3.5588 to 3.8935). This shows that majority of the respondents had implemented TQM in the organization.

Similarly, the standard deviation for all the items was below 1.0. It can be deduced that the response for the item were not deviating much from the expected response.

4.4.6 Financial Performance

The study sought to find out the financial performance of the organization, the respondents were asked to rate the following statement indicating the organization financial performance. The responses were as indicated in Table 4.13.

Table 4.13: Financial Performance

Financial indicator	N	Min	Max	Mean	Std. Deviation
We have Improved asset utilization	102	3.00	5.00	3.9218	.71213
We have reduced amount of wastage in the organization	102	2.00	5.00	3.9118	.83003
We have reduced the fixed capital needed to support a given level of business	102	2.00	5.00	3.8765	.87803
We have reduced indirect cost common resources are shared with other business unit	102	2.00	5.00	3.7981	.72944
Our Sales growth rate has improved	102	2.00	5.00	3.7941	.76986
Our organization has introduced new revenue sources by entering introducing new products	102	2.00	5.00	3.7841	.68664
We have disposed parts of current and fixed asset base not in use	102	3.00	5.00	3.7607	.69887
Our organization has improved the existing customers profitability	102	2.00	5.00	3.7471	.81212
We have been more careful in asset acquisition	102	2.00	5.00	3.7352	.89732
Our market share has increased	102	2.00	5.00	3.7153	.89811
Our organization has introduced new revenue sources by entering into new markets	102	2.00	5.00	3.7147	.78079
We have Lowered the direct cost of products and services	102	2.00	5.00	3.6765	.76755
Our Profit growth rate has increase	102	2.00	5.00	3.6271	.88360
We have reduced the working capital needed to support a given level of business	102	2.00	5.00	3.6176	.81704

The respondents agreed that their organization had improved their financial performance, in the following areas (the mean score for various variables has been written against them); their Sales growth rate has improved (3.7941); their market share has increased(3.7153); their Profit growth rate has increased (3.6271); their organization has introduced new revenue sources by entering into new markets (3.7147); their organization has introduced new revenue sources by introducing new products (3.7841) and lastly their organization has improved the existing customers profitability (3.7471).

On cost reduction the respondents agree they had reduced wastage in the organization (3.9118); they had Lowered the direct cost of products and service (3.6765); they had reduced indirect cost common resources are shared with other business unit (3.7981) they had Improved asset utilization (3.9218); they had reduced the working capital needed to support a given level of business (3.6176) they had reduced the fixed capital needed to support a given level of business (3.8765); they had been more careful in asset acquisition (3.7352) and lastly they disposed parts of current and fixed asset base not in use (3.7607). Studies (Mehralian, Nazari, Nooriparto and Rasekh, 2017) show that a combination of TQM philosophy and tools positively influence both cost reduction and business performance. Fotopoulos and Psomas (2010) studies further revealed in their studies that TQM has a substantial positive effect on both operational and organization performance. The findings show TQM and generic strategies have positive effect on organization financial performance. There is evidence that TQM has an indirect effect on organization financial performance. Chaudary *et al.*, (2015) study showed there is an indirect relationship between TQM and financial performance.

4.4.7 Customer Satisfaction

The respondents were asked to rate the following statement concerning customer satisfaction. Their ratings are as shown in Table 4.14.

Table 4.14: Customer Satisfaction

Customer satisfaction indicator	N	Min	Max	Mean	Std. Deviation
Our customer is loyal to us	102	3.00	5.00	4.0598	.69375
We have managed to retain our customers over the years	102	3.00	5.00	4.0009	.84909
Our customers have provided us with quality knowledge which has enabled us to develop and/improve our products and business processes.	102	3.00	5.00	4.0000	.55048
Our customers have always recommended our products to others	102	2.00	5.00	3.9412	.81431
The number of customer complaints have reduced over the years	102	3.00	5.00	3.8824	.68599
We have continuously acquired new customers	102	2.00	5.00	3.8529	.74396

The respondents agreed on the following statement; their customer was loyal to them (mean score of 4.0598); they had retained their customers over the years (mean score of 4.0009); the customers provided them with quality knowledge which has enabled them to develop and/improve our products and business processes (Mean of 4.0000); their customer has always recommended their products to others (3.9412); the number of customer complaints have reduced over the years (mean score of 3.8824) and lastly, they have continuously acquired new customers (3.8529). These findings are consistent with Ngigi and Njeru (2014) study shows there is a positive relationship between generic strategies (differentiation and cost focus) and customer satisfaction. Similarly, studies (Kim, 2016; Kumar et al., 2009; Mehra & Rangathan, 2008) concluded that there is a strong significant relationship between TQM and customer satisfaction.

4.4.8 Internal Process Improvement

The respondents were asked to rate the following statement used measure internal process performance. Their responses are as shown in the Table 4.15 below.

Table 4.15: Internal process improvement

Indicator	N	Min	Max	Mean	Std. Deviation
We have integrated seamlessly with our customer's value chains to deliver solutions	102	3.00	5.00	4.0578	.60006
We have Built a strong customer management process	102	3.00	5.00	4.0290	.57658
We have a Leading-edge innovation process that have enabled us create new products	102	2.00	5.00	3.8929	.74396
We have Speed and efficiency in distribution process	102	3.00	5.00	3.8129	.65747
We have excellence supplier relationships	102	1.00	5.00	3.7653	1.02422
We have improved the quality of our products	102	2.00	5.00	3.7647	.78079
We have reduced our operation costs	102	2.00	5.00	3.6971	.84861
We have speed and efficiency in supply process	102	2.00	5.00	3.6577	.88360
We have reduced the cycle time of operating process	102	2.00	5.00	3.5000	.82572

The respondents agreed that internal business processes had generally improved. They agreed that the different aspects of business processes (with mean score written against each variable) had improved; On customer management process the respondents agreed they had integrated seamlessly with customer's value chains to deliver solutions (4.0578) and that they have built a strong customer management process (4.0290). The respondents also agreed (3.8929) they have built a leading-edge innovation process that have enabled them create new products and they had increased Speed and efficiency in distribution process (3.8129). They also agreed that they had excellence supplier relationships (3.7653); the quality of their products had improved (3.7647), their operation costs had reduced (3.6971); they had

increased speed and efficiency in supply process (3.6577) and lastly, they agreed that the cycle time of operating process had reduced (3.5000). Rapid technological changes in the world demands that organizations continuously improve internal processes. The results show that implementation of TQM coupled with generic strategies encourages to improve internal processes. This is in line with the findings of previous studies (Baird et al., 2011; Kumar et al., 2009) which results suggest that TQM implementation can improve internal processes or modify the existing organizational operations

4.4.7.4 Learning and Growth

The respondents were asked to rate the following statement used measure on organization learning and growth. Their findings are shown in Table 4.16.

Table 4.16: Learning and growth

Indicator	N	Min	Max	Mean	Std. Deviation
We understand our customer's needs	102	3.00	5.00	4.0294	.62694
We ensure that everyone knows the customer	102	2.00	5.00	4.0000	.81650
We make our company knowledge available to our customers	102	2.00	5.00	3.9706	.75820
We emphasize on team work	102	2.00	5.00	3.8412	.99060
We continuously train our employees to improve their skills	102	3.00	5.00	3.7588	.60006
We capture knowledge from our customer	102	3.00	5.00	3.7353	.61835
We reuse what other parts of the company have already learnt	102	2.00	5.00	3.6770	.91725
We ensure that ideas flow from customer service to research and development	102	2.00	5.00	3.6471	.84861
We capture knowledge from our suppliers	102	2.00	5.00	3.5294	.74814

The respondents agreed that they understand their customer's needs (4.0294); they ensure that everyone knows the customer (4.0000), they made company knowledge available to their customers (3.9706); they emphasize on team work (3.8412); they continuously train their employees to improve their skills (3.7588), they captured knowledge from their customer (3.7353); they reused what other parts of the company have already learnt (3.6770); they ensure that ideas flow from customer service to research and development (3.6471) and lastly they capture knowledge from their suppliers (3.5294).

These findings are in agreement with findings of Aboyassin *et al.* (2011) which showed there exist a link between KM processes and the principles of TQM. There is significant correlation between knowledge management processes (diagnosis, acquisition, generation, sharing, storing and application) and TQM principles (adaptation of quality and commitment of senior staff; focus on customers; continuous improvement, training and education, and employee participation. The study further revealed that acquiring and applying knowledge are the most important process to achieve overall quality. Akgun *et al.* (2014) study also revealed the same TQM principles enables a firm to acquire, interpret, translate and deploy the knowledge, skills and attitude of people throughout the organization to establish learning capability.

4.5 Factor Analysis

The study conducted a structural equation modelling using the analysis of moment structures (SPSS AMOS) to construct a conceptual modelling linking the variables under study. The study employed confirmatory factor analysis to construct the linkage between the dimension of generic strategies, TQM and dependent variables. The study also followed two step approaches for SEM. The confirmatory measurement model and confirmatory structure model as outlined by Anderson and Gerbing (1988).

4.5.1 Confirmatory Measurement Model

The first phase involved Confirmatory Factor Analysis (CFA) that involved evaluation of measurement model on multiple criteria. Prior to CFA, exploratory factor analysis (EFA) that involve computation of factor loading matrix, communality and principle component analysis (PCA) was conducted.

4.5.2 Exploratory Factor Analysis

To test whether the items were associated with specific factors, Exploratory Factor Analysis (EFA) was used. EFA was used to identify factors based on data and to maximize the amount of variance explained. To assess the factorability of items, two indicators were examined that is Kaise Meyer-Olkin measure of sampling adequacy and Barlett test of sphericity (Pallant, 2010). KMO & Bartlett's Test of Sphericity was used to measure of sampling adequacy that is recommended. The Bartlett's Test of Sphericity relates to the significance of the study and thereby shows the validity and suitability of the responses collected to the problem being addressed through the study. For Factor Analysis to be recommended suitable, the Bartlett's Test of Sphericity must be less than 0.05 in this study the Bartlett test of sphericity is less than 0.01 for all the variables used in the study this shows the data was suitable for factor analysis .

Kaiser-Meyer-Olkin (KMO) Test was used to measure the suitability of data is for Factor Analysis. The KMO ranges from 0 to 1. According to Kaiser KMO values of 0.00 to 0.49 are unacceptable; 0.50 to 0.59 are miserable; Values of 0.60 to 0.69 are mediocre; Values of 0.70 to 0.79 are middling; 0.80 to 0.89 meritorious and 0.90 to 1.00 marvellous. The KMO value as indicated in Table 4.17 was 0.875 showing the data was adequate for factor analysis.

Table 4.17: KMO and Barlett Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.875
	Approx.	1450.694
	Chi-Square	
Bartlett's Test of Sphericity	df	190
	Sig.	.000

34.5.3 Factor Analysis for Independent Variable

EFA was used to reduce the number of variables from large to small, establish underlying dimensions between measured variables and constructs and provide construct validity evidence (Field, 2009). The KMO values for independent and dependent variables in the study ranges from 0.764 to 0.891 with most values above 0.80. This shows that the data was suitable for factor analysis. Stevens (2002) recommends that for a sample size of 50 a loading of 0.722 can be considered significant, for 100 factor loading of 0.512 is considered significant. The population size in the study is 102 the factor loading for the variables are significant as they range from 0.609 to 0.964. Reliability of 0.70 Cronbach alpha is normally accepted in basic research. Zikmund *et al.* (2010) also posit that a Cronbach alpha of 0.60 as a minimum is accepted. All the alpha coefficient ranged from 0.739 to 0.922 based on the coefficient values the items tested were deemed reliable for this study.

4.5.4 Factor Analysis for Cost Leadership Strategy

The KMO value for cost leadership was 0.875 and Bartlett's Test of Sphericity was < 0.00001. This shows that the data was suitable for factor analysis. Factor analysis was conducted using principal component method. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor (Field, 2009). Total variance analysis indicated that the ten statements of cost leadership could be factored into three factors as shown in appendix VII. The three

factors are Supplier relationship; Economies of scale and Improved efficiency as shown in Table 4.18. Supplier relationship (CL1) the items under supplier relations included Integration of supply chain with suppliers; Supplier relationships and accessing raw materials at fairly good prices. Under Economies of scale (CL2) the items included Production in large quantities; Standardized products and Selling at lower prices, under improved efficiency (CL3) the items included out sourcing, Internal cost cutting measures and automation of processes.

Table 4.18: Factor Analysis for Cost Leadership Strategy

Factor	Item	Items Factor loading	Cronbach alpha
Supplier relationship (CL1)	Integration of supply chain with suppliers	0.872	0.893
	Supplier relationships	0.956	
	We buy raw materials at fairly good prices	0.941	
Economies of scale (CL2)	Production in large quantities	0.925	0.776
	Standardized products	0.894	
	Selling at lower prices	0.762	
Improved efficiency (CL3)	Out sourcing	0.786	0.852
	Internal cost cutting measures	0.922	
	Automation of processes	0.788	

4.5.5 Factor Analysis for Differentiation Strategy

The KMO value was 0.807 and Bartlett's Test of Sphericity was < 0.00001 . This show the data was suitable for factor analysis. Factor analysis was conducted using principal component method. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor (Field, 2009). Total variance analysis indicated that the eight statements of differentiation could be

factored into three factors as shown in appendix VII. The three factors as shown in Table 4.19 are high level of customer service (DS1), developing unique products (DS2) and increased marketing activities (DS3). Under customer service the key component included training employees on customer care, quality services and the organization responsive to customer needs. Under marketing services, the variable included marketing communication activities and building brand identity. Lastly under product development the subcomponent included improved product quality, continuous development of new product and lastly diversifying unique product range.

Table 4.19: Factor analysis for differentiation strategy

Factor	Sub-component	Factor loading	Cronbach alpha
Customer service (DS1)	Well trained employees on customer care	0.796	0.922
	Offer quality customer services	0.793	
	Responsive to customers' needs	0.809	
Marketing services (DS2)	Build brand identity	0.838	0.739
	Increased marketing communication activities	0.647	
Product development (DS3)	Improve product quality	0.847	0.828
	continuously development of new products	0.730	
	Diversified unique product range	0.696	

4.5.6 Factor analysis for Focus strategy

The KMO value was 0.866 and Bartlett's Test of Sphericity was < 0.00001 . The data was suitable for factor analysis. EFA was conducted using principal component method. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor. Total variance analysis indicated that the eight statements of focus strategy could be factored into two factors as shown in appendix VII. The two factors are customized customer service (CF1) and customized marketing mixes (CF2) as shown in Table 4.20. Under specialized customer service components, the subcomponent included quick responses to the changing customer demands, employees trained on how to handle customers, meeting the customer needs better than competitors and personalized customer services. while under customized marketing mixes the subcomponent included products tailored to meet customer demand and customers involved in developing new products, tailored market communication messages, competitive pricing based on quality of products.

Table 4.20: Factor Analysis for Focus strategy

Component	Sub-components	Factor loading	Cronbach alpha
Customized customer service (CF 1)	quick responses to the changing customer demands	0.714	0.905
	Competitive services	0.609	
	Training	0.861	
Serving specific market segment (CF 2)	Personalized customer services	0.919	0.876
	Products tailored to meet specific customers' needs	0.855	
	Tailored market communication messages	0.661	
	pricing is based on product quality	0.877	
	Customers are involved in developing new products	0.892	

4.5.7 Factor Analysis for Mediating Variable Total quality management

The KMO value was 0.874 and Bartlett's Test of Sphericity was < 0.00001 . This shows the data was suitable for factor analysis. EFA was conducted using principal component method. The data was appropriate for factor analysis. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor. Total variance analysis indicated that the eight statements of TQM could be factored into three factors as shown in appendix VII. The three factors as shown in Table 4.21. TQM was measured using three components leadership and human resource management (T1), customer focus (T2) and continuous process improvement (T3). Leadership and human resource management consisted of the following subcomponents leadership, top management commitment, employee empowerment and training. Under continuous process improvement it contained the following sub component supplier partnership. Continuous process improvement, and waste reduction and lastly under customer focus the subcomponents were benchmarking and commitment to meeting customer's needs

Table 4.21: Factor Analysis for Total Quality Management

Component	Subcomponent	Factor loading	Cronbach alpha
Leadership and human resource management (T1)	Team work	0.713	0.929
	Leadership	0.867	
	Training	0.948	
	Employee empowerment	0.947	
	Top management commitment to quality	0.671	
Customer focus (T2)	Bench marking	0.964	0.812
	Commitment to customers	0.704	
Continuous improvement (T3)	Supplier management	0.628	0.821
	Waste reduction	0.724	
	Continuous process improvement	0.941	

4.5.8 Factor analysis for Dependent Variables

Organization performance was measured using balance scorecard approach, this included financial, customer satisfaction, internal process improvement and learning and growth

4.5.9 Factor analysis for Financial Performance

The KMO value was 0.764 and Bartlett's Test of Sphericity was < 0.00001 . The data was suitable for factor analysis. EFA was conducted using principal component method. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor. Total variance analysis indicated that the fourteen statements of focus strategy could be factored into two factors as shown in appendix VII. The factors are profitability (F1) and cost reduction (F2) as shown in Table 4.22. Under profitability the subcomponents include Sales growth rate increase, growth in markets share, profit increase and introduction of new sources of revenue. Under cost reduction the subcomponents included waste reduction, reduced direct cost of products and service, reduced indirect cost and Improved asset utilization

Table 4.22: Factor analysis for Financial performance

Components	Subcomponents	Factor loading	Cronbach alpha
Profitability (F1)	Sales growth rate	0.710	0.847
	growth in markets share	0.822	
	Profit increase	0.875	
	New sources of revenue	0.746	
Cost reduction (F2)	Waste reduction	0.782	0.884
	Reduced direct cost	0.813	
	Reduced indirect cost	0.694	
	Asset utilization	0.878	

4.5.10 Factor analysis for Customer Satisfaction

The KMO value was 0.891 and Bartlett's Test of Sphericity was < 0.00001 . This shows data was suitable for factor analysis. Factor analysis was conducted using principal component method. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor. Total variance analysis indicated that the six statements of focus strategy could be factored into two factors as shown in appendix VII. The two factors are customer management (CS1) and acquisition of new customers (CS2) as shown in Table 4.23. Customer loyalty was measured using customer loyalty, retention rate and complains handling. Customer acquisition was measured using new customer acquisition and referrals

Table 4.23: Factor Analysis for Customer Satisfaction

Components	Subcomponents	Factor loading	Cronbach alpha
Customer Management (CS1)	Customer loyalty	0.884	0.890
	Customer retention	0.883	
	Customer complaints have reduced	0.923	
Customer acquisition (CS2)	Acquiring new customers	0.917	0.846
	Referrals of new customers	0.706	

4.5.11 Factor analysis for Internal Process Improvement

The KMO value was 0.829 and Bartlett's Test of Sphericity was < 0.00001 . This shows data was suitable for factor analysis. Factor analysis was conducted using principal component method. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor. Total variance analysis indicated that the nine statements of internal process improvement could be factored into three factors as shown in appendix VII, the three factors are efficiency in supply chain management (PM1), customer value chain management (PM2) and

operation efficiency (PM3) as indicated in Table 4.24. Under Efficiency in supply chain management the items included excellence supplier relationships and speed and efficiency in supply process, Under Customer value chain management the subcomponents included Speed and efficiency in distribution process, strong customer management process, integrating seamlessly with our customer's value chains to deliver solutions and lastly Leading-edge innovation process that have enabled organization create new products for our customers. Lastly under Operation efficiency the items included reduced operation costs and reduced the cycle time of operating process

Table 4.24: Factor analysis for Internal Process Performance

Components	Subcomponents	Factor loading	Cronbach alpha
Efficiency in supply chain management(PM1)	Excellence supplier relationships	0.921	0.941
	Speed and efficiency in supply process	0.908	
Customer value chain management (PM2)	We have speed and efficiency in distribution process	0.876	0.893
	We have built a strong customer management process	0.912	
	We have integrated seamlessly with our customer's value chains to deliver solutions	0.915	
	We have a leading-edge innovation process that have enabled us create new products for our customers	0.749	
Operation efficiency (PM3)	We have reduced our operation costs	0.873	0.787
	We have reduced the cycle time of operating process	0.719	

4.5.12 Factor Analysis for Learning and growth

The KMO value was 0.776 and Bartlett's Test of Sphericity was < 0.00001 . The data was suitable for factor analysis. Factor analysis was conducted using principal component method. The extraction of the factors followed the Kaiser Criterion where an Eigen value of 1 or more indicates a unique factor. Total variance analysis indicated that the eight statements of learning and growth can be factored into two factors as shown in appendix VII. The two factors are knowledge acquisition (KN1) and knowledge sharing (KN2) as shown in Table 4.25. Knowledge acquisition included capture knowledge from our customer, capture knowledge from suppliers and Training. Knowledge sharing included front-line employees are empowered with information they need, making company knowledge available to our customers, ensure that ideas flow from customer service to research and development, reuse what other parts of the company have already learnt and lastly Team work

Table 4.25: Factor analysis for organization learning and growth

Components	Subcomponents	Factor loading	Cronbach alpha
Knowledge acquisition (KN1)	capture knowledge from our customer	0.926	0.821
	capture knowledge from suppliers	0.624	
	Training	.866	
Knowledge sharing (KN2)	Our front-line employees are empowered with information they need	.871	0.875
	We make our company knowledge available to our customers	.833	
	We ensure that ideas flow from customer service to research and development	.794	
	We reuse what other parts of the company have already learnt	.843	
	Team work	.833	

4.5.13 Communalities of Factors

Communality values used to measure the values of each observed variable that could be explained by extracted factors (Field, 2009). Communality value less than 0.3 indicates that the variable does not fit well with other variables in its component and is undesirable (Pallant, 2010). Small values indicate that variables do not fit well the factor solution and could possibly be dropped from the analysis. Extracted communalities are estimates of variance in variables accounted for by factors in each factor solution. Extracted communalities values for this study ranged between 0.596 to 0.827 (appendix VII)

4.6 Confirmatory Factor Analysis

The confirmatory factor analysis was conducted in order to assess the extent to which the observed data fitted the pre-specified theoretically driven model (Hair et al., 2010). CFA was conducted on each construct to show the extent to which the observed variable (indicators) represent the underlying latent construct by assessing whether proposed variable indicators had significant factor loadings. Hence it ensures the appropriate model was selected for analysis (Hooper et al. 2008). The results of CFA are presented in Figure 4.2

According to Hair *et al.* (2010) a significant standardized residual covariance is one with absolute value greater than 0.5. The Figure shows that all the factor loadings for all hypothesized indicators measuring independence, mediating and dependent variables are above 0.65 hence they are acceptable.

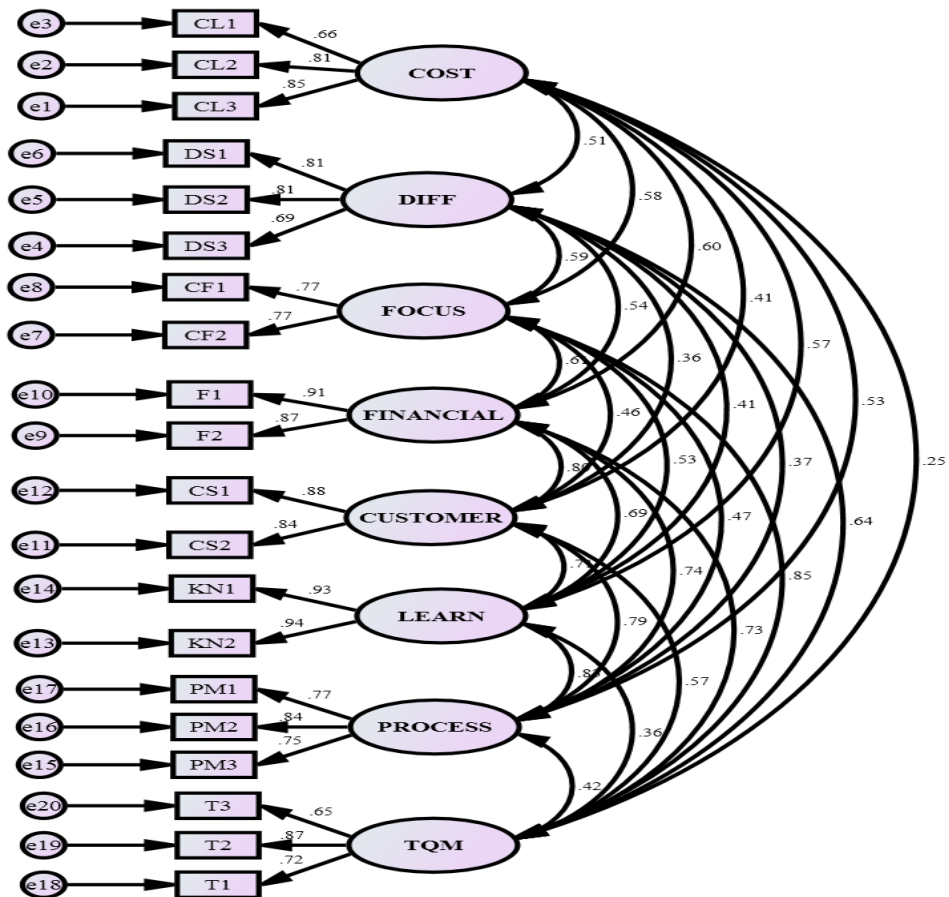


Figure 4.2: Confirmatory Factor Analysis

4.7 Hypothesis testing

4.7.1 Confirmatory Structural Models and Hypothesis Testing of Study Variables

The study used Structural Equation Modelling (SEM) to test the hypothesized relationship and to fit the structural to SEM as recommended by Hooper *et al.* (2008). Exploratory factor analysis was conducted to ensure the factor loading for the indicator to be used were more than 0.4 and that variable indicators converged on one common construct (Fielder, 2009). In order to assess whether the model

provided adequate fit for the data, the study considered both absolute fit indices and incremental fit indices (Hair et al., 2010). Regression weights were used to test the contribution of each indicator to their relevant construct (convergent validity). Regression weights were also used to explain the nature of the relationship since all the variables were in the same measurement scale.

Path diagrams (Models) were used to specify patterns of directional and non-directional relationships among observed variables (Babin & Svensson, 2012). Path coefficient estimates were used to determine the direction and strength of the factor. This was conducted by the use of Analysis of Moment structures (SPSS AMOS) software. SPSS AMOS software was used to assess the model fit, compute results and develop a visual/graphic output.

In order to ascertain that the model provided adequate fit for the data the study also considered the two types of fit statistics commonly used that is absolute fit indices and incremental fit indices (Hair et al., 2010) for absolute fit indices the study used root mean square error of approximation (RMSEA), RMSEA is related to the residuals in the model, it analyse the discrepancy between the hypothesized model, with optimally chosen parameter estimates, and the population covariance matrix. The RMSEA values ranges from 0 to 1, with smaller values indicating better model fit. A value of 0.08 or less is indicative of acceptable model fit (Hair el al, 2010). Other absolute fit indices used were Goodness of Fit Index (GFI) and adjusted goodness of fit index (AGFI). The goodness of fit index (GFI) is a measure of fit between the hypothesized model and the observed covariance matrix. The adjusted goodness of fit index (AGFI) corrects the GFI, which is affected by the number of indicators of each latent variable. The GFI and AGFI range between 0 and 1, with a value of over 0.8 generally indicating acceptable model fit (McDonald & Ho, 2002). For incremental fit indices, comparative fit index (CFI) was used. The comparative fit index (CFI) analyses the model fit by examining the discrepancy between the data and the hypothesized model, while adjusting for the issues of sample size inherent in the chi-squared test of model fit and the normed fit index. CFI values range from 0 to 1, with larger values indicating better fit.

4.8 TQM on the relationship between Cost Leadership Strategy and Organization Performance

The first objective of the study was to establish the mediation effect of TQM on the relationship between cost leadership strategy and organization performance and to test the null hypothesis;

H₀₁: TQM practice has no significant Mediating effect on the relationship between costs Leadership strategy and organization performance.

The study measured Organization performance using four dimensions (financial performance, customer satisfaction, internal business process performance and organization learning and growth) to provide a holistic view of the organization performance as recommended by Kaplan and Norton (1992) in the balance score card. To test the hypothesis and measure the mediation effect of TQM the study first assessed its effects on different performance dimensions starting with financial performance, customer satisfaction performance, internal process performance, organization learning and growth and lastly its effect on the overall performance.

To ascertain that the models provided adequate fit for the data the study considered both absolute fit indices and incremental fit indices. The fit indices used to verify that the five models used to test the hypothesis were adequate. Table 4.26 shows the five model fit statistics were as follows, RMSEA values of 0.078, 0.094, 0.031, 0.059 and 0.078 all within the acceptance range; GFI of 0.943, 0.920, 0.973, 0.966 and 0.927; AGFI 0.901, 0.830, 0.930, 0.910 and 0.862 and lastly CFI index of 0.951, 0.927, 0.997, 0.987 and 0.954 this also falls within the acceptance range. RMSEA Values range from 0 to 1 with a smaller RMSEA value indicating better model fit (Marsh et al., 2011). RMSEA value of less than 0.05 is considered excellent, 0.05 to 0.08 is good while 0.1 is acceptable. (Hu & Bentler 1999). According to Hair *et al.* (2010) GFI, AGFI and CFI values > 0.90 are acceptable. This shows the model were fit to test the hypothesis.

Table 4.26: Model Fit Statistics TQM, Cost leadership and Organization performance

	Model 1	Model 2	Model 3	Model 4	Model 5
RMSEA	0.078	0.094	0.031	0.059	0.078
GFI	0.943	0.920	0.973	0.966	0.927
AGFI	0.901	0.830	0.930	0.910	0.862
CFI	0.951	0.927	0.997	0.987	0.954

Model 1; TQM, Cost leadership and financial performance

Model 2; TQM, Cost leadership and customer satisfaction

Model 3; TQM, Cost leadership and internal process performance

Model 4; TQM, Cost leadership and organization learning and growth

Model 5; TQM, Cost leadership and overall performance

4.8.1 TQM effects on Cost Leadership strategy and financial performance.

The study adopted Baron and Kenny (1986) procedures for measuring mediation effect as discussed in chapter three. The first step involves establishing that the independent variable (cost leadership) is relate to the dependent variable (financial performance) such that Beta in equation one is significant. The study findings as presented in Table 4.27 showed there was a positive significant relationship between Cost leadership strategy and financial performance; ($\beta = 0.501$ and P-value < 0.01) a unit increase in cost leadership strategy index led to an increase in manufacturing firm financial performance index by 0.501. Since the p-value was less than 0.05 this fulfils the first condition for testing mediation effects.

The second condition involves testing if the independent variable (cost leadership) relate to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of measuring the mediation effect. The findings as presented in the Table 4.27 showed that there was a positive significant relationship between cost leadership strategy and TQM ($\beta = 0.233$ and P-value is 0.046). Since the p-value was less than 0.05 this shows that at 95% confidence level

cost leadership strategy affects TQM performance. This fulfils the second condition for measuring mediation effects.

Lastly to test for mediation according to Baron and Kenny (1986) mediation test, there should be a significant relationship between TQM and financial performance. The findings as presented in the Table 4.27 shows the regression coefficients for TQM is ($\beta = 0.596$ and the P-value <0.01). since the p-value was less than 0.05 this shows that TQM predicts the financial performance of the organization, and for cost leadership strategy the regression coefficient is ($\beta =0.352$ and the P-value is 0.01) similarly the p-value was less than 0.05 which shows that at 95% confident level both TQM and cost leadership strategy predicts the financial performance of the organization.

Table 4.27: Cost leadership strategy on TQM and financial performance

	Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before TQM mediation effects	FP < CL	0.310	0.501	0.078	0.010
	TQM < CL	0.136	0.233	0.099	0.046
After TQM mediation effects	TQM < CL	.143	0.246	0.067	0.039
	FP < TQM	.599	0.596	0.131	0.010
	FP < CL	.205	0.352	0.062	0.010

CL (Cost leadership strategy); FP (financial performance)

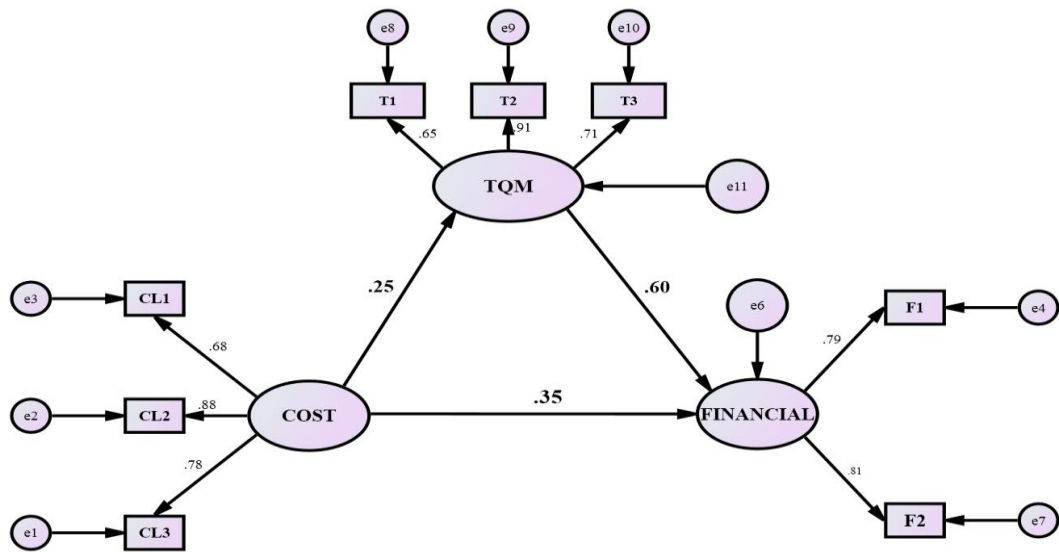


Figure 4.3: Cost Leadership Strategy, TQM, Financial performance

From the findings, the direct effects of cost leadership strategy on financial performance has reduced from 0.501 to 0.352, however both TQM and cost leadership strategy still predicts the financial performance of the organization. The study therefore concludes that TQM partially mediates the relationship between cost leadership strategy and financial performance. According to Baron and Kenny (1986) Partial mediation maintains that the mediating variable accounts for some, but not all, of the relationship between the independent variable and dependent variable. Partial mediation implies that there is not only a significant relationship between the mediator (TQM) and the dependent variable (financial performance), but also some direct relationship between the independent (cost leadership strategy) and dependent variable (financial performance). The significance of this indirect effect (mediation effects) was tested using bootstrapping procedures as recommended by Hayes (2013). The indirect effects were computed for each 5000 bootstrapped samples. The results show the P value was 0.08, which is not statistically significant at 95% confident interval but it is significant at 90% confidence interval. Hence the study concludes that at 90% confidence interval TQM partially mediate the relationship between cost leadership strategy and financial performance.

The following conclusions can be drawn from the study, there exist strong positive relationship between cost leadership strategy and financial performance. This is consistent with past Studies by Mutunga and Minja (2014) and Waweru (2011) which showed there is strong relationship between cost leadership strategy and financial performance. The study also shows that there exists strong positive relationship between TQM and financial performance; Several studies (Fotopoulos & Vouzas, 2010; Salaheldin, 2009; Kumar *et al.*, 2009) have also proven there is significant relationship between TQM and organization financial performance.

The study concluded that TQM partially mediates the relationship between cost leadership strategy and financial performance. The indirect (mediation) effects can be explained by the fact that TQM principles are closely related to cost leadership strategy. According to Porter (1980) Attaining cost leadership requires aggressive construction of efficiency scales and vigorous pursuit of cost reduction through experience, tight cost and overhead control. Similarly, TQM is an organization culture that emphasizes on elimination of wastes and reduction of different types of costs hence enabling the organization attain cost reduction and improve its profitability. However, the study shows that, TQM only partially mediated the relationships between cost leadership strategy and financial performance this shows that a significant portion of variance in performance is directly explained by cost leadership strategies without being mediated by TQM. This finding is important in the sense that when pursuing TQM under the context of cost leadership strategy, organization also needs to furnish certain resources that are not accommodated by TQM such as economies of scales and adaptation of technology.

This finding relates to the findings by Zatzick *et al.* (2012) study which revealed that TQM mediated the relationship between cost leadership strategy and financial performance in US manufacturing firms. Similarly, study by Yunis *et al.* (2013) study also showed that there exists a positive relationship between TQM and cost leadership strategy because TQM is an organization culture influencing strategy choice and hence operational performance. The study therefore rejects the null

hypothesis and accepts the alternative hypothesis TQM mediates the relationship between cost leadership strategy and financial performance.

4.8.2 TQM, Cost Leadership Strategy and Customer Satisfaction performance

The study adopted Baron and Kenny (1986) procedures to test for mediation effect. The first step involves establishing that the independent variable (Cost leadership) relates to the dependent variable (customer satisfaction) such that Beta in equation one is significant. The study findings as presented in the Table 4.28 showed that there was a positive significant relationship between cost leadership strategy and customer satisfaction. ($\beta = 0.470$ and P-value is 0.003) therefore a unit increase in cost leadership strategy index led to an increase in manufacturing firm customer satisfaction performance index by 0.470. Since the p-value was less than 0.05. This fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variable (cost leadership) should related to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of the mediation effect. The findings as shown in the Table 4.28 showed that there was a positive significant relationship between cost leadership strategy and TQM ($\beta = .233$ and P-value < 0.0). Since the p-value was less than 0.05. This fulfils the second mediation condition

Lastly to test for mediation according to Baron and Kenny (1986) mediation test, there should be a significant relationship between TQM and customer satisfaction. The findings as presented in the Table 4.28 shows the regression coefficients for TQM is ($\beta = 0.479$ and the P-value is 0.01). which shows that TQM predicts the customer satisfaction indices of manufacturing firms in Kenya and for cost leadership strategy the regression coefficient is ($\beta = 0.351$ and the P-value is 0.002) which is statistically significant. Both TQM and cost leadership strategy have a significant effect on customer satisfaction. However, the direct effect of cost leadership strategy on customer satisfaction performance has reduced from 0.470 to 0.351. The study concludes that TQM partially mediates the relationship between cost leadership strategy and customer satisfaction.

Table 4.28: Cost leadership strategy, TQM and customer satisfaction performance

	Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before mediation effects of TQM	TQM < CL	.136	.233	.099	0.046
	CS < CL	.240	.470.	.081	0.003
After TQM mediation effects	TQM < CL	.143	.239	.070	0.040
	CS < CL	.215	.351	.063	0.002
	CS < TQM	.476	.479	.133	0.010

CL (Cost leadership strategy); CS (customer satisfaction performance)

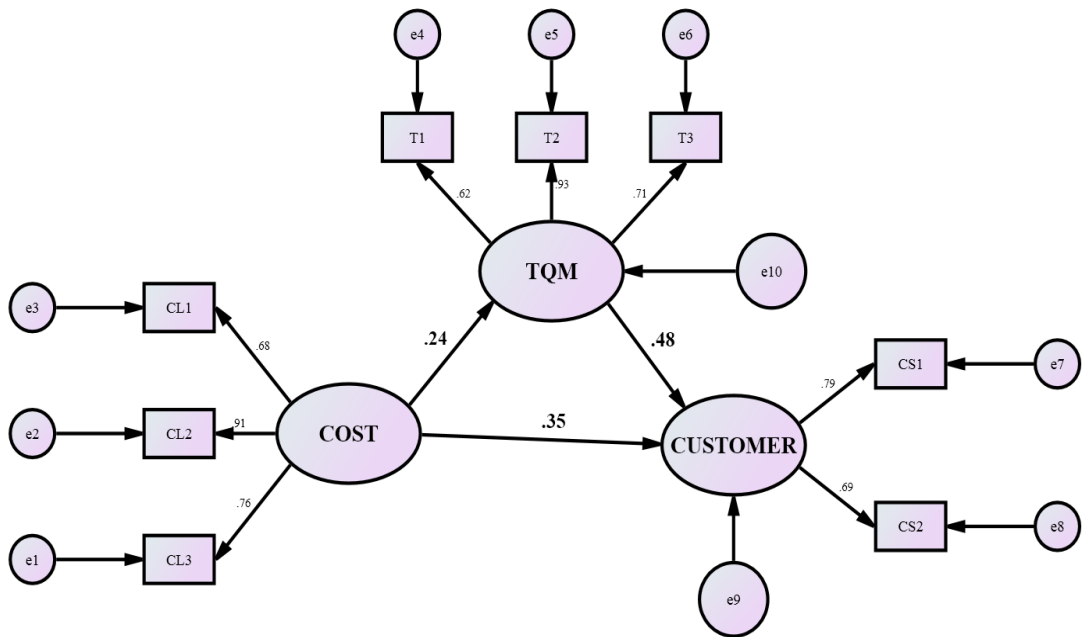


Figure 4.4: Cost leadership strategy, TQM, Customer satisfaction

The relationship between cost leadership strategy and customer satisfaction performance was partially mediated by TQM. According to Baron and Kenny (1986) Partial mediation maintains that the mediating variable accounts for some, but not all, of the relationship between the independent variable and dependent variable. Partial mediation implies that there is not only a significant relationship between the mediator (TQM) and the dependent variable (customer satisfaction), but also some direct relationship between the independent (cost leadership strategy) and dependent variable (customer satisfaction). The significance of this indirect (mediation) effect was tested using bootstrapping procedures. The indirect effects were computed for each 5000 bootstrapped samples. The results show the P value was 0.049. Therefore, the study concluded that the indirect (mediation) effect of TQM on the relationship between cost leadership strategy and customer satisfaction performance is significantly different from zero at 95% confidence level based on a bootstrap approximation obtained by constructing two-sided percentile-based confidence intervals.

The studies result show there is strong significant relationship between cost leadership's strategy and customer satisfaction and that TQM only partially mediate this relationship. This can be explained by the fact that customers look for high value or low cost and are less concern with uniqueness and high level of individualized service (Miles, 2013). Though seeking low costs means customer's service is standardized, reducing the personal elements in service delivery, reducing network costs and sealing off part of service to enhance efficiency. However, customer Service quality expectation differs depending on the complexity of the service task (Malhotra & Malhotra, 2013). When a firm competes as a cost leader, customers may recognize that the cost leadership comes at a price and therefore be willing to trade service quality for lower price and they will still be satisfied (Miles, 2013). Furthermore the results show that TQM partially mediate the relationship between cost leadership strategy and customer satisfaction this can be explained by analysing the close link between TQM principle customer focus strategy and customer satisfaction. TQM does not fully mediate the relationship between cost leadership strategy and customer satisfaction performance this imply that a percentage of variance is caused by resources not coupled in TQM such as product promotion,

marketing research and distribution of the products. Hence when implementing TQM in the context of cost leadership organization should also implement it together with this resource. Closely related to this finding are previous studies (Kristianto et al., 2012; Kumar et al, 2009) findings which hypothesized and found evidence of a positive significant impact of TQM on customer performance. The study therefore rejects the null hypothesis and accepts the alternative hypothesis and concludes that TQM partially mediates the relationship cost leadership strategy and customer satisfaction performance.

4.8.3 TQM practice on Cost Leadership Strategy and Internal Process Performance.

To test for mediation, the study used Baron and Kenny (1986) test as discussed in chapter three. First the study established that the independent variable (Cost leadership) relate to the dependent variable (internal process improvement) such that Beta in equation one is significant. The study findings as shown in Table 4.29 show that there was a positive significant relationship between cost leadership strategy and internal process performance ($\beta = 0.517$ and P-value < 0.01) therefore a unit increase in cost leadership strategy index led to an increase in manufacturing firm performance index by 0.517 since the p-value was less than 0.05. This fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variable (cost leadership) relate to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of the mediation effect. The findings as shown in Table 4.29 showed that there was a positive significant relationship between cost leadership strategy and TQM ($\beta = .233$ and P-value < 0.05). Since the p-value was less than 0.05. This fulfils the second condition for measuring mediation effects.

To establishes the second stage of the mediation effect. The mediator variable TQM should relate to the dependent variable (internal process performance) such that β is significant. The findings as presented in Table 4.29 show the standardized regression coefficients for TQM is ($\beta = 0.280$ and the P-value is 0.012). which shows that TQM predicts internal process performance of manufacturing firms in Kenya and for cost

leadership strategy the regression coefficient is ($\beta = 0.447$ and the P-value is 0.002) which is statistically significant.

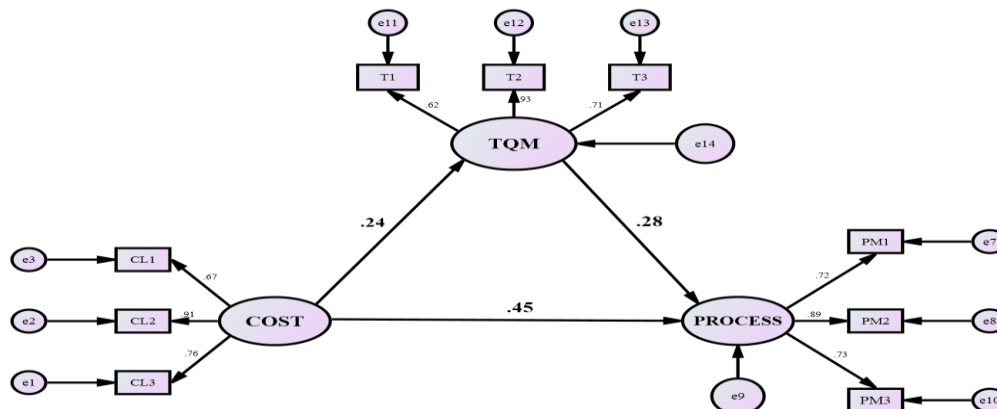


Figure 4.5: Cost leadership strategy, TQM, Internal process performance

Table 4.29: Cost leadership strategy on TQM and internal process performance

		Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before	TQM	IP < CL	0.513	0.517	0.123	0.010
Mediation effects						
		TQM < CL	0.136	0.233	0.099	0.046
After	TQM	TQM < CL	0.135	0.238	0.068	0.047
mediation effects		IP < CL	0.431	0.447	0.070	0.002
		IP < TQM	0.475	0.280	0.195	0.012

IP (internal process performance) CL (Cost leadership strategy)

Both TQM and cost leadership strategy have a significant effect on internal process performance. However, the direct effects of cost leadership strategy on internal

process performance have reduced from 0.517 to 0.447. The study concludes that TQM partially mediates the relationship between cost leadership strategy and internal process performance. According to Baron and Kenny (1986) Partial mediation maintains that the mediating variable accounts for some, but not all, of the relationship between the independent variable and dependent variable. Partial mediation implies that there is not only a significant relationship between the mediator (TQM) and the dependent variable (internal process performance), but also some direct relationship between the independent (cost leadership strategy) and dependent variable (internal process performance). The significance of this indirect effect was tested using bootstrapping procedures. The indirect effects were computed for each 5000 bootstrapped samples. The results show the P value for the indirect (mediating effect) was 0.042 which was significant at 95% confidence level. The study concludes that TQM partially mediates the relationship between Cost leadership strategy and internal process performance.

The study shows there is positive significant relationship between cost leadership strategy and internal process performance and that TQM only partially mediate this relationship. The mediation effects can be explained by the fact that TQM is an organization culture that emphasizes on continuous process improvement and efficiency. When TQM is implemented together with cost leadership strategy it is likely to enhance the performance of processes. The direct effect of cost leadership strategy even after TQM implementation can explained by the fact that Organizations that pursue cost leadership strategy employs several activities that are not incorporated in TQM philosophy like accurate demand forecasting, economies of scales, technological advancement and outsourcing. Even though not integrated in TQM they still enhance the process performance. This thus requires that when organizations are implementing TQM under the dimension of cost leadership in order to improve processes it should be implemented together with this other strategy not incorporated in TQM philosophy. Process improvement allows organization to be more efficient reduces the cost of production and delivery as well as allowing the organization to achieve economies of scale, reducing the cost and gaining market share. These results accentuate the earlier findings of Hilman and Kaliappen (2014) which shows there is a significant relationship between cost leadership strategy and

process improvement. Mehralian *et al.* (2017) also hypothesised and proved that strong significant relationship between TQM practise and process improvement. The study therefore accepts the alternative hypothesis that TQM mediates the relationship between cost leadership strategy and internal process performance.

4.8.4 TQM, Cost Leadership Strategy and Organization Learning and Growth

To test for mediation, the study used Baron and Kenny (1986) test as discussed in chapter three. First the study established that the independent variable (Cost leadership strategy) should relate to the dependent variable (organization learning and growth) such that Beta in equation one is significant. The study findings as shown in Table 4.30 showed that there was a positive significant relationship between cost leadership strategy and organization learning and growth performance ($\beta = 0.414$ and P-value <0.01) therefore a unit increase in cost leadership strategy index led to an increase in manufacturing firm learning and growth index by 0.414 since the p-value was less than 0.05.

The second condition involves testing if the independent variable (cost leadership) relate to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of the mediation effect. The findings as shown in the Table 4.30 showed that there was a positive significant relationship between cost leadership strategy and TQM ($\beta = .233$ and P-value <0.046). Since the p-value was less than 0.046. This fulfils the second condition for measuring mediation effects.

To establishes the second stage of the mediation effect. The mediator variable TQM should relate to the dependent variable (organization learning and growth) such that β is significant. The results as indicated in Table 4.30 shows the regression coefficients for TQM is ($\beta = 0.600$ and the P-value is 0.01). which shows that at 99% confidence interval TQM predicts organization learning and growth in Kenyan manufacturing firms and the regression coefficient for cost leadership strategy is ($\beta = 0.254$ and the P-value is 0.008) which is statistically significant at 99% confident level.

Table 4.30: Cost leadership, TQM and organization learning and growth performance

	Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before TQM mediation effects	OLG < CL	0.373	0.414	0.100	0.010
	TQM < CL	0.136	0.233	0.099	0.046
After TQM mediation effects	TQM < CL	0.165	0.265	0.075	0.027
	OLG < CL	0.221	0.254	0.083	0.008
	OLG < TQM	0.833	0.600	0.165	0.010

CLS (Cost leadership strategy); OLG (Organization Learning and Growth)

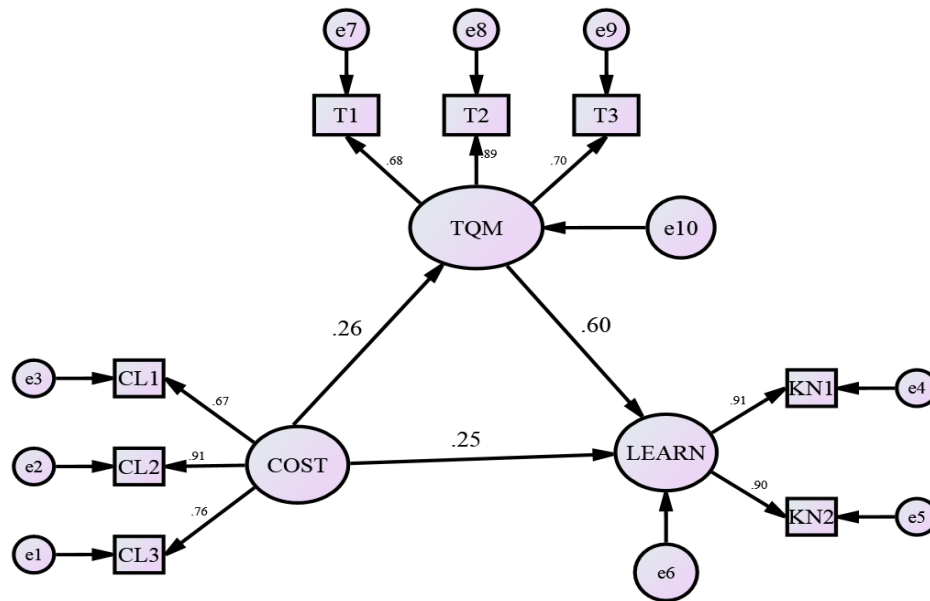


Figure 4.6: TQM on Cost leadership strategy; organization Learning and Growth

Both TQM and cost leadership strategy have a significant effect on organization learning and growth. However, the direct effects of cost leadership on organization learning and growth have reduced from 0.414 to 0.254. Hence the study concludes that TQM partially mediates the relationship between cost leadership strategy and organization learning and growth. According to Baron and Kenny (1986) Partial mediation maintains that the mediating variable accounts for some, but not all, of the relationship between the independent variable and dependent variable. Partial mediation implies that there is not only a significant relationship between the mediator (TQM) and the dependent variable (organization learning and growth), but also some direct relationship between the independent (cost leadership strategy) and dependent variable (organization learning and growth). To find out significance of the indirect effects of TQM on the relationship between cost leadership strategy and internal process performance the study used bootstrapping procedures. The indirect (mediation) effect of TQM on relationship between cost leadership strategy and organization is not significantly different from zero at the 95% confidence level ($P = 0.060$ two-tailed) based on a bootstrap approximation obtained by constructing two-sided percentile- based confidence intervals. However, the indirect effects are significant at 90% confidence interval.

TQM partially mediate the relationship between cost leadership and organization learning and growth. There is significant relationship between cost leadership strategy and organization learning and growth and TQM only partially mediates this relation. The direct effects of cost leadership strategy on organization learning and growth can be explained by the fact that cost leadership as a strategy emphasizes on a learning atmosphere where by higher learning will be associated with less defects rate lower maintenance cost and increased efficiency within the organization. However, the partial mediation effects of TQM can be explained by examining the strong significant relationship between TQM and organization learning and growth. According to Ooi *et al.* (2010) TQM and knowledge management are related theoretically and practically, TQM practice training, teamwork and customer focus are positively associated with knowledge sharing) in addition their practices are used for improving the organization performance. The findings accentuate Zwain, Lim and Othman (2017) which provided evidence that TQM core elements have a

positive significant impact on knowledge management. Hung *et al.*, (2010) study also shows that the higher extent of the TQM core elements implementation would lead to the better Knowledge management processes.

4.8.5 TQM, Cost Leadership Strategy, Overall Organization Performance

To test for mediation, the study used Baron and Kenny (1986) test as discussed in chapter three. First the independent variable (Cost leadership) should relate to the dependent variable (organization performance) such that Beta in equation one is significant. The study findings as indicated in the Table 4.31 showed that there was a positive significant relationship between cost leadership strategy and overall organization performance ($\beta = 0.572$ and P-value < 0.01) therefore a unit increase in cost leadership strategy index led to an increase in manufacturing firm performance index by 0.572 since the p-value was less than 0.05. This fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variable (cost leadership) relate to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of the mediation effect. The findings as indicated in the Table 4.31. Showed that there was a positive significant relationship between cost leadership strategy and TQM ($\beta = 0.233$ and P-value < 0.046). Since the p-value was less than 0.046. This fulfils the second condition for measuring mediation effects.

Lastly the mediator variable TQM should relate to the dependent variable such that β is significant. This condition establishes the second stage of the mediation effect. The findings as shown in the Table 4.31 shows the regression coefficients for TQM is ($\beta = 0.624$ and the P-value is 0.01). Which shows that TQM predicts the overall performance of the organization, and for cost leadership strategy the regression coefficient is ($\beta = 0.383$ and the P-value is 0.01) this shows that both TQM and cost leadership strategy at 99% confidence interval predicts the overall performance of the organization.

Table 4.31: Cost leadership strategy on TQM and overall performance

		Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before	TQM	TQM < CLS	.136	.233	.099	0.046
		OP < CLS	.390	.572	.082	0.010
After	TQM	TQM < CLS	.156	.258	.073	0.032
		OP < CLS	.186	.383	.050	0.010
		OP < TQM	.502	.624	.108	0.010

CLS (Cost leadership strategy); OP (overall performance)

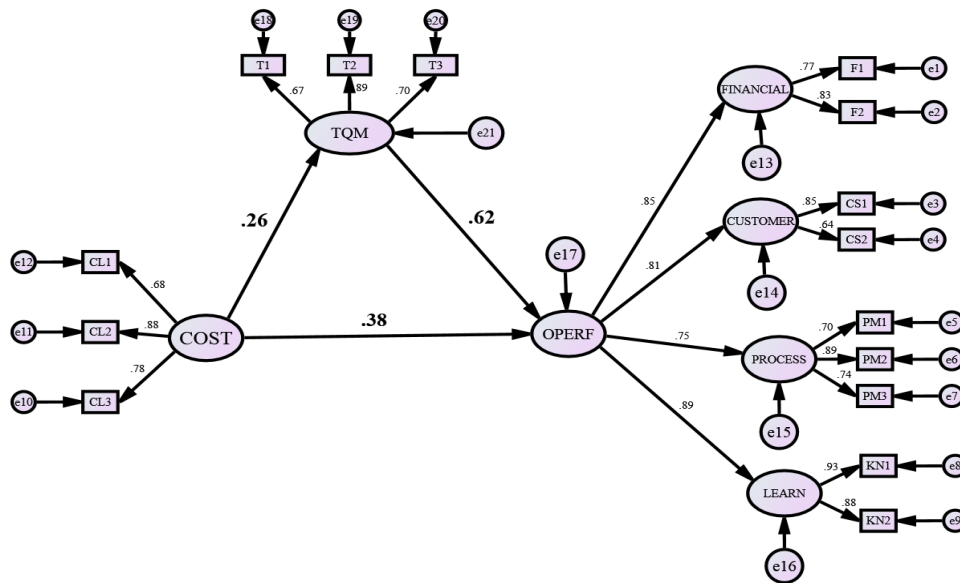


Figure 4.7: Cost leadership strategy, TQM, Overall performance

This shows that both TQM and cost leadership strategy at 99% confidence interval predicts the overall performance of the organization. The relationship between cost leadership strategy and overall performance is significant. Hence the study concludes that TQM partially mediates the relationship between cost leadership strategy and overall organization performance. According to Baron and Kenny (1986) Partial mediation maintains that the mediating variable accounts for some, but not all, of the relationship between the independent variable and dependent variable. Partial mediation implies that there is not only a significant relationship between the mediator (TQM) and the dependent variable (overall performance), but also some direct relationship between the independent (cost leadership strategy) and dependent variable (overall performance). The relationship between cost leadership strategy and overall organization performance was partially mediated by TQM. The significance of this indirect effect was tested using bootstrapping procedures. The indirect effects were computed for each 5000 bootstrapped samples. The results show the P value was 0.01, which is statistically significant at 99% confident interval. Hence the study concludes that at 99% confidence interval TQM partially mediate the relationship between cost leadership strategy and organization performance.

The study concludes that TQM partially mediate the relationship between cost leadership strategy and overall organization performance. Therefore, the study rejects the null hypothesis (H_0 : TQM practice has no significant Mediating effect on the relationship between cost leadership strategy and organization performance) and accept the alternative hypothesis. The study results show there is a strong significant relationship between cost leadership strategy and overall organization performance; this is similar to previous studies (Arasa & Gathinji, 2014; Birjandi et al., 2014) findings. The study also shows there is strong significant relationship between TQM and organization performance this have been proven by several studies (Hilman & Kaliappen 2014; Kumar *et al.*, 2009). The mediating effects of TQM on this relationship are explained by the similarities between the two philosophies. According to Porter (1980) Attaining cost leadership requires aggressive construction of efficiency scales and vigorous pursuit of cost reduction through experience, tight cost and overhead control. Similarly, TQM principles continuous process improvement, elimination of wastes, supplier partnership, and

team work enhances the performance of cost leadership strategy. However, the study shows that TQM partially mediates this relationship; this is because a significant portion of variance in performance is directly explained by strategies without being mediated by TQM. This finding is important in the sense that when pursuing TQM under the context of cost leadership strategies, organization also needs to furnish certain resources that are not accommodated by TQM such as economies of scale and technology adaptation. This finding are related to previous studies findings by Yunis *et al.*, (2013) and Zatzick *et al.*, (2012) which shows that TQM mediated the relationship between cost leadership strategy and organization performance. The study rejects the null hypothesis; TQM practice has no significant mediating effect on the relationship between cost leadership strategy and organization performance and accepts the alternative hypothesis.

4.9 TQM practice on Differentiation Strategy and Organization Performance.

The second objective of the study was to determine the Mediating effect of TQM practice on the relationship between differentiation strategy and organization performance and to test the following hypothesis

H₀₂: TQM practice has no significant Mediating effect on the relationship between differentiation strategy and organization performance.

To measure the mediating effect of TQM on the relationship between differentiation strategy and organization performance; the study first assessed it effects on different performance measures dimensions starting with financial performance, customer satisfaction performance, internal process performance, learning and growth and lastly its effect on the overall performance. The study measured Organization performance using four dimensions (financial, customer satisfaction, internal business process and learning and growth) to provide a holistic view of the organization performance as recommended by Kaplan and Norton (1992) in the balance score card. Before testing for mediation effect the study established that the five models used to measure mediation effects were fit. To ascertain that the model provided adequate fit for the data the study considered both absolute fit indices and incremental fit indices. The fit indices were used to verify that the five models used

to test the hypothesis were adequate. Table (4.32) shows the following model fit statistics; RMSEA values of 0.074, 0.089, 0.073, 0.069 and 0.058 all within the acceptance range; GFI of 0.920, 0.964, 0.932, 0.947 and 0.878; AGFI of 0.823, 0.864, 0.873, 0.892 and 0.823 and lastly CFI index of 0.937, 0.927, 0.962, 0.952 and 0.961 this also falls within the acceptance range. RMSEA Values range from 0 to 1 with a smaller RMSEA value indicating better model fit (Marsh et al., 2011). RMSEA value of less than 0.05 is considered excellent, 0.05 to 0.08 is good while 0.1 is acceptable. (HU & Bentler 1999). According to McDonald and Ho (2002) GFI, AGFI and CFI values > 0.80 are acceptable. These shows the models were fit.

Table 4.32: Model Fit Statistics TQM, differentiation and Organization performance

	Model 1	Model 2	Model 3	Model 4	Model 5
RMSEA	0.074	0.089	0.073	0.069	0.058
GFI	0.920	0.964	0.932	0.947	0.878
AGFI	0.823	0.864	0.873	0.892	0.823
CFI	0.937	0.927	0.962	0.952	0.961

Model 1; TQM, differentiation strategy and financial performance

Model 2; TQM, differentiation strategy and customer satisfaction

Model 3; TQM, differentiation strategy and internal process performance

Model 4; TQM, differentiation strategy and organization learning and growth

Model 5; TQM, differentiation strategy and overall performance

4.9.1 TQM practice on Differentiation Strategy and Financial performance.

To test for mediation, Baron and Kenny (1986) test as discussed in chapter three was used. First the study established that independent variable (differentiation strategy) relate to the dependent variable (financial performance) such that Beta in equation one is significant. The study findings as indicated in the Table 4.33 showed that there was a positive significant relationship between differentiation strategy and financial performance ($\beta = 0.767$ and P-value <0.01) therefore a unit increase in differentiation strategy index led to an increase in manufacturing firm financial performance index

by 0.767 since the p-value was less than 0.05. This fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variable (differentiation strategy) relate to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of the mediation effect. The findings as indicated in the Table 4.33 showed that there was a positive significant between differentiation strategy and TQM ($\beta = 0.643$ and P-value < 0.01). Since the p-value was less than 0.05. This fulfils the second condition for measuring mediation effects.

Lastly the mediator variable TQM should relate to the dependent variable such that its β is significant. This condition establishes the second stage of the mediation effect the findings as shown in Table 4.33 shows the regression coefficients for TQM is ($\beta = 0.309$ and the P-value is 0.028). This shows that TQM predicts the financial of the organization hence fulfilling the last condition for measuring mediation effects. For differentiation strategy, the regression coefficient is ($\beta = 0.571$ and the P-value is 0.01). The p values for regression coefficient for TQM and differentiation strategy are significant at 95% level of confidence.

Table 4.33: Differentiation strategy on TQM and financial performance

	Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before TQM mediation effects	TQM < DS	0.790	0.643	0.199	0.010
	FP < DS	0.788	0.767	0.171	0.010
After TQM mediation effects	TQM < DS	.758	.649	.179	0.010
	FP < DS	.614	.571	.177	0.010
	FP < TQM	.285	.309	.130	.028

DS (Differentiation strategy); FP (financial performance)

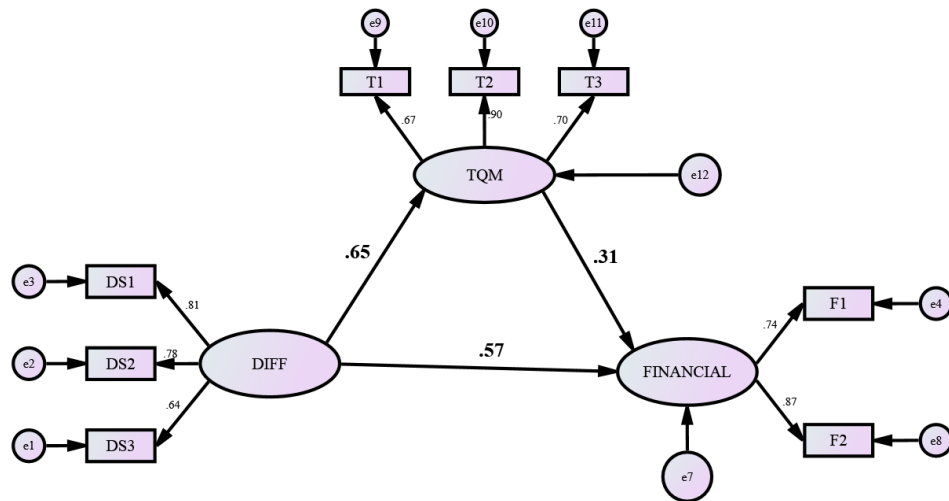


Figure 4.8: Differentiation strategy, TQM and Financial performance

Both differentiation strategy and TQM predicts the financial performance of manufacturing firms. However, the direct effect of differentiation strategy on financial performance has reduced from 0.767 to 0.571. Hence, the study concludes that TQM partially mediate the relationship between differentiation strategy and financial performance. Partial mediation implies that there is not only a significant relationship between TQM and financial performance, but also some direct relationship between differentiation strategy and financial performance.

The significance of this indirect effect was tested using bootstrapping procedures. The indirect effects were computed for each 5000 bootstrapped samples. The results based on a bootstrap approximation obtained by constructing two-sided percentile-based confidence intervals show the P value was 0.01 which is statistically significant at 99% confident interval. Hence the study concludes that at 99% confidence interval TQM partially mediates the relationship between differentiation strategy and financial performance

The findings show TQM partially mediates the relationship between differentiation strategy and financial performance. This mediation effect can be explained by the fact that TQM is a strategic organization resource that emphasizes on continuous process improvement enhancing efficiency and effectiveness resulting to development of quality products, services and processes that increases the competitiveness of the organization resulting to increased financial performance in the long run. The direct effects of Differentiation strategy on financial after TQM implementation shows that a significant portion of variance in performance is directly explained by differentiation strategies without being mediated by TQM. This finding is important in the sense that when pursuing TQM under the context of differentiation strategies, organization also needs to furnish certain resources that are not accommodated by TQM such as market communication, market research, market development, and adopted of technology. Similar to the study's findings are Yunis *et al.*, (2013) findings which indicated that TQM plays the role of a strategic driver; it can be viewed as a company-wide culture that instils a culture of innovation, effective communication, knowledge sharing and employee involvement and thus had a potential effect on differentiation strategy. This finding are also consistent with Ndung'u, Otieno and Rotich (2016) Study carried out in Equity bank showed that differentiation strategy had a positive effect on financial performance of equity bank, to a great extent, with product/service quality control procedures through TQM having the greatest effect. This finding are closely related to Banker *et al.*, (2014) findings which showed that there was significant relationship between differentiation strategy and financial performance and Mehralian (2017) study demonstrates that them was significant relationship between TQM and financial performance.

4.9.2 TQM practice on Differentiation Strategy and Customer Satisfaction.

To test the mediating effect of TQM on relationship between differentiation strategy and customer satisfaction index performance. First the independent variable (differentiation strategy) should relate to the dependent variable (customer satisfaction) such that Beta in equation one is significant. The study findings as indicated in the Table 4.34 showed that there was a positive significant relationship between differentiation strategy and customer satisfaction. ($\beta = 0.491$ and P-value

<0.01) therefore a unit increase in differentiation strategy index led to an increase in manufacturing firm customer satisfaction performance index by 0.491. Since the p-value was less than 0.05. This fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variable (differentiation strategy) relate to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of the mediation effect. The findings as indicated in the Table 4.34 showed that there was a positive significant relationship between differentiation strategy and TQM ($\beta = 0.643$ and P-value <0.01). Since the p-value was less than 0.05. This fulfils the second condition for measuring mediation effects.

Lastly the mediator variable TQM should relate to the dependent variable such that its β is significant. This condition establishes the second stage of the mediation effect. The findings as indicated in Table 4.34 shows the regression coefficients for TQM is ($\beta = 0.407$ and the P-value is 0.007). Which shows that TQM predicts the Customer satisfaction indices in the organization, and the regression coefficient for differentiation strategy is ($\beta = 0.207$ and the P-value is 0.165). The p value for regression differentiation strategy is insignificant at 95% level of confidence. However, the P-value for TQM is significant at 95% level of confidence; hence this satisfies the last condition TQM predicts the customer satisfaction performance. However, the direct effects of differentiation strategy on customer satisfaction are insignificant.

Table 4.34: Differentiation strategy, TQM and customer satisfaction performance

		Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before mediation effect	TQM	TQM < DS	0.790	0.643	0.199	0.010
		CS < DS	0.596	0.491	0.158	0.010
After mediation effect	TQM	TQM < DS	0.787	0.647	0.215	0.010
		CS < DS	0.269	0.207	0.072	0.165
		CS < TQM	0.435	0.407	0.175	0.007

DS (Differentiation strategy); CS (Customer Satisfaction)

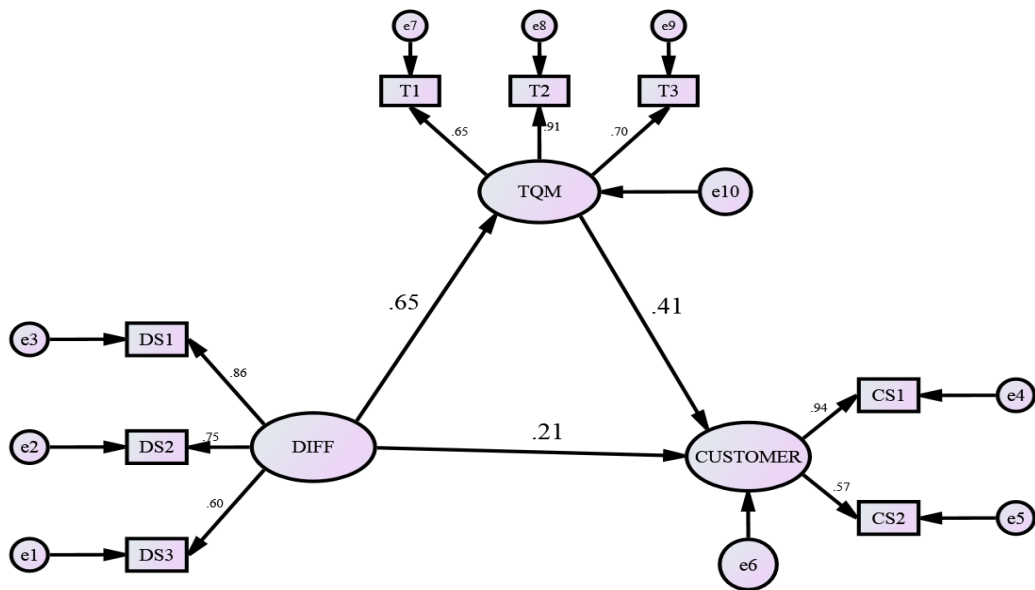


Figure 4.9: Differentiation strategy, TQM and customer satisfaction

The direct effect of differentiation strategy on customer satisfaction is insignificant. Hence, the study concludes that TQM completely mediate the relationship between differentiation strategy and customer satisfaction performance. According to Baron and Kenny (1986) complete mediation in mediational hypothesis means that the independent variable does not at all affect the dependent variable after the mediator variable has controlled it. The study shows the relationship between differentiation strategy and customer satisfaction performance is completely mediated by TQM. The significance of this indirect effect was tested using bootstrapping procedures. The results based on bootstrap approximation obtained by constructing two-sided percentile-based confidence intervals show the indirect (mediation) effect of TQM on relationship between differentiation strategy and customer satisfaction is significantly different from zero at 0.01 confident level ($p=.010$ two-tailed).

The study shows there is a significant relationship between differentiation strategy and customer satisfaction and that TQM full mediated this relationship. This can be explained by the close link between differentiation strategies and TQM. Firms that focus on differentiation often rely on product customization which in turn involves depending on close relationship developed with customers. This relationship overtime builds a reputation of the firm, a good reputation translates into better performance and creates a valuable resource that is difficult to imitate thus providing the firm with durable advantage. Banker *et al.* (2014) study shows Firms focusing on differentiation strategy emphasizes on high customer service level since the basic level of service and support may be easy to imitate. Increasing these service levels beyond the basic level of service level involves substantial training and changes in the attitudes of employees towards customers which becomes entrenched in the organization culture and can be hard to duplicate enabling them to achieve financial performance in the long run. TQM is a culture when embedded in the organization enables the organization to continuously improve its processes, products and services and also improves professionalism among employees through training, good leadership and its emphasizes on employee's empowerment. This enhances good relationship between the organization and customers. TQM principle of customer focus emphasizes on the organization building strong long-term relationship with its customers similarly to differentiation strategy.

Closely related to this finding are Arasa and Gathinji (2014) study shows there is a positive relationship between generic strategies (differentiation and cost focus) on customer satisfaction. Similarly, studies (Kim, 2016; Kumar et al., 2009; Mehra & Rangathan, 2008) concluded that there is a strong significant relationship between TQM and customer satisfaction. Considering the similarity between TQM and differentiation strategy and the strong relationship between TQM and customer satisfaction it is clear that TQM affects the relationship between differentiation strategy and customer satisfaction. Hence the study rejects the null hypothesis and accepts that alternative hypothesis TQM mediate the relationship between differentiation strategy and customer satisfaction performance.

4.9.3 TQM practice on Differentiation Strategy and Internal Process Performance

To test the mediating effect of TQM on relationship between differentiation strategy and internal process performance. First the independent variable (differentiation strategy) should relate to the dependent variable (Internal Process Management) such that Beta in equation one is significant. The study findings as shown in the Table 4.35 show that there was a positive significant relationship between differentiation strategy and process management performance. ($\beta = 0.400$ and P-value <0.003) therefore a unit increase in differentiation strategy index led to an increase in manufacturing firm process management performance index by 0.400 since the p-value was less than 0.05. This fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variable (differentiation strategy) should relate to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of the mediation effect. The findings as shown in the Table 4.35 showed that there was a positive significant between differentiation strategy and TQM ($\beta =0.643$ and P-value <0.00001). Since the p-value was less than 0.05. This fulfils the second condition for measuring mediation effects.

Lastly the mediator variable TQM should relate to the dependent variable such that its β is significant. This condition establishes the second stage of the mediation effect. The findings as shown in Table 4.35 shows the regression coefficients for TQM is ($\beta = 0.419$ and the P-value is 0.010). The p value for regression coefficient for TQM on internal process performance is significant at 95% confidence interval. Meeting the second mediation condition. The direct effects of differentiation strategy on internal process improvement is ($\beta= 0.192$ and the p-value is 0.194). This is insignificant at 95% and 90% confidence interval. Hence the study concludes that TQM completely mediates the relationship between differentiation strategy and internal process performance.

Table 4.35: Differentiation strategy, TQM and internal process performance

	Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before TQM	IP < DS	0.761	0.400	0.255	0.003
mediation effects	TQM < DS	0.790	0.643	0.199	0.010
After TQM	TQM < DS	0.800	0.633	0.198	0.010
mediation effects	IP < DS	0.409	0.192	0.315	0.194
	IP < TQM	0.407	0.419	0.253	0.010

IP (internal process performance) DS (Differentiation strategy)

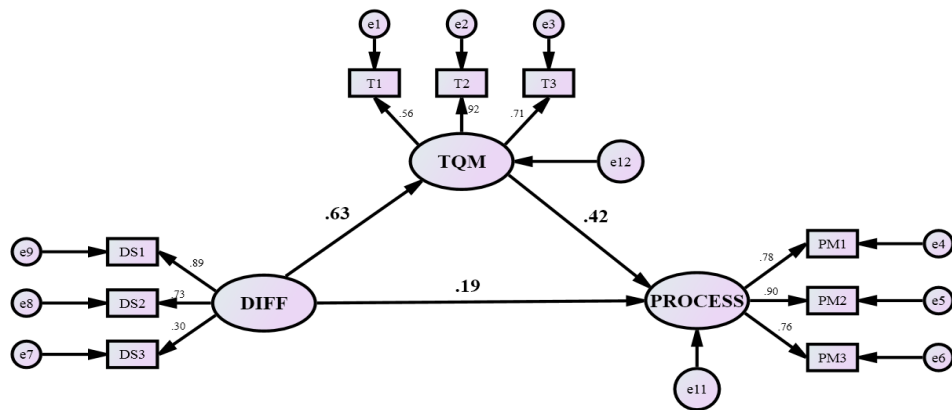


Figure 4.10: Differentiation strategy, TQM, Internal process performance

The direct effects of differentiation strategy on internal process improvement are insignificant at 95% and 90% confidence interval. According to Baron and Kenny (1986) complete mediation in mediational hypothesis means that the independent variable does not at all affect the dependent variable after the mediator variable has controlled it. Hence the study concludes that TQM completely mediates the relationship between differentiation strategy and internal process performance. The significance of this indirect effect was further tested using bootstrapping procedures. The standardized indirect effects were computed for each 5000 bootstrapped samples. The results of the indirect (mediation) effect based on bootstrap approximation obtained by constructing two-sided percentile- based confidence interval shows that of the indirect (mediation) effect of TQM on the relationship differentiation strategy and internal process performance was significantly different from zero at the 0.01 confident level ($p=.010$ two-tailed). The study concludes that TQM completely mediates the relationship between differentiation strategy and internal process performance.

The study shows there is a strong relationship between differentiation strategy and internal business process performance, their also exist a strong relationship between

TQM and differentiation strategy. It also shows that TQM fully mediate the relationship between differentiation strategy and internal process performance. Consistent with this study are findings are Prajogo and Sohal (2006) and Faezi (2014) shows that TQM have significant effect on the relationship between differentiation strategy and organization performance. As explained by Zatzick *et al.* (2012) firm that adopt differentiation strategic orientation focus on enhancing values of a products or service through innovations and responsiveness to customer preferences. It is therefore expected that the processes for this firms are not efficiency. TQM is generally associated with internal process improvement and cost reduction, customer focus, team work and continuous process improvement. Hence TQM implementation enhances their efficiency of these processes and fully mediated the performance of such process. This study rejects the null hypothesis and accepts alternative hypothesis TQM mediates the relationship between Generic strategies and internal process performance.

4.9.4 TQM practice on Differentiation Strategy and Organization Learning and Growth

To test the mediating effect of TQM on relationship between differentiation strategy and organization learning and growth performance index. First the independent variable (differentiation strategy) should relate to the dependent variable (organization learning and growth) such that Beta in equation one is significant. The study findings as shown in the Table 4.36. Showed that there was a positive significant relationship between differentiation strategy and organization learning and growth. ($\beta = 0.564$ and P-value <0.01) therefore a unit increase in differentiation strategy index led to an increase in manufacturing firm learning and growth performance index by 0.564. Since the p-value was less than 0.05. This fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variable (differentiation strategy) should relate to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of the mediated effect. The findings as shown in Table 4.36 showed that there was a positive significant

relationship between differentiation strategy and TQM ($\beta = 0.643$ and P-value < 0.01). Since the p-value was less than 0.05 as indicated in the table. This fulfils the second condition for measuring mediation effects.

The last step involves establishing that the mediator variable TQM relate to the dependent variable organization learning and growth such that its beta is significant. This condition establishes the second stage of the mediation effect. Table 4.36 shows the regression coefficients for TQM is ($\beta = 0.622$ and the P-value was 0.01). Which shows that TQM predicts organization learning and growth performance in the organization, and the regression coefficient for differentiation strategy is ($\beta = 0.124$ and the P-value is 0.415). The p value for regression coefficient differentiation strategy is insignificant at 95% and 90% level of confidence. However, the P value for TQM is significant at 95 % level of confidence; hence this satisfies the last condition TQM predicts the values of organization learning and growth. However, the effect of differentiation strategy on organization learning and growth is insignificant. Hence, we can conclude that TQM completely mediate the relationship between differentiation strategy and organization learning and growth

Table 4.36: Differentiation, TQM and organization learning and growth performance

		Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before mediation effects	TQM	TQM < DS	0.790	0.643	0.199	0.010
		OLG < DS	0.969	0.564	0.228	0.010
After mediation effects	TQM	TQM < DS	0.944	0.695	0.210	0.010
		OLG < DS	0.214	0.124	0.263	0.415
		OLG < TQM	0.794	0.622	0.211	0.010

DS(Differentiation Strategy); OLG (Organization Learning and Growth)

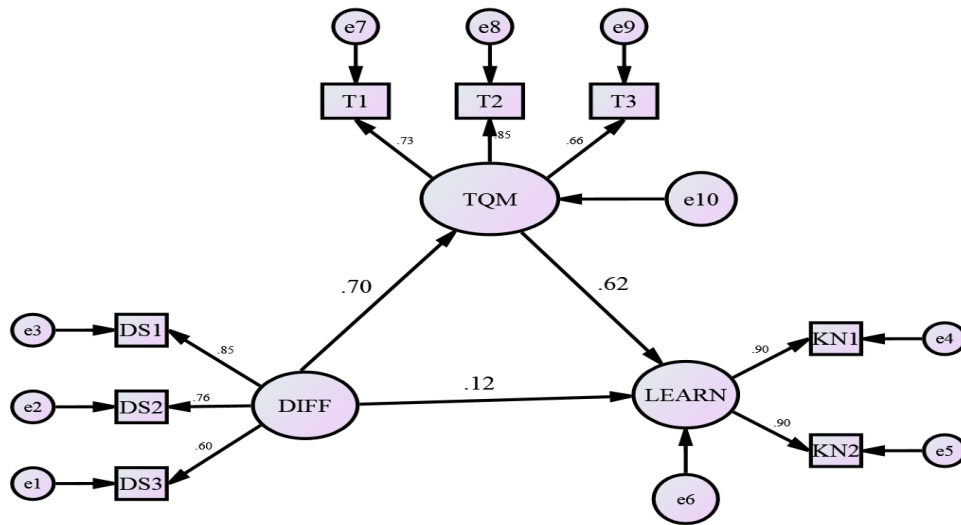


Figure 4.11: Differentiation, TQM and organization learning and growth performance.

However, the direct effect of differentiation strategy on organization learning and growth is insignificant. Hence, the study can conclude that TQM completely mediate the relationship between differentiation strategy and organization learning and growth. To test the significance of this indirect effects. Standardized indirect effects were computed for each 5000 bootstrapped samples. The results based on bootstrap approximation obtained by constructing two-sided percentile-based confidence intervals show that the indirect (mediation) effect of TQM on the relationship between differentiation strategy and Organization learning and growth is significantly different from zero at the 0.01 confident level ($p=.010$ two-tailed).

The study shows that TQM mediates the relationship between differentiation strategy and organization learning and growth. The findings are closely related to Hung *et al.* (2010) and Zwain *et al.* (2017) which indicates a positive relationship between TQM and Knowledge management. TQM as a tool motivate the culture of learning in the organization, employees in the organization are encouraged to continuously learn from within and outside the organization in order to improve internal processes and

meet customers demand. Firms that focus on differentiation strategy rely on product customization and developing unique products. This mainly depend on innovations based on organizations ability to learn acquire and share knowledge.

Aboyassin *et al.* (2011) study revealed there exist a link between KM processes and the principles of TQM. There is significant correlation between knowledge management processes (diagnosis, acquisition, generation, sharing, storing and application) and TQM principles (adaptation of quality and commitment of senior staff; focus on customers; continuous improvement, training and education, and employee participation this explains the mediation. The study further revealed that acquiring and applying knowledge are the most important process to achieve overall quality. Akgun *et al.* (2014) study also revealed the same TQM principles enables a firm to acquire, interpret, translate and deploy the knowledge, skills and attitude of people throughout the organization to establish learning capability.

4.9.5 TQM, Differentiation Strategy and Overall Performance

To test the mediating effect of TQM on relationship between differentiation strategy and the overall performance of the organization. First the independent variable (differentiation strategy) should relate to the dependent variable (firm's performance) such that Beta in equation one is significant. The study findings as indicated Table 4.37. Showed that there was a positive significant relationship between differentiation strategy and organization performance. ($\beta = 0.688$ and P-value <0.01) therefore a unit increase in differentiation strategy index led to an increase in manufacturing firm performance index by 0.688. Since the p-value was less than 0.01 this fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variable (differentiation strategy) relate to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of the mediation effect. The findings showed as indicated Table 4.37 showed that there was a positive significant between differentiation strategy and TQM ($\beta =0.643$ and P-value <0.00001). Since the p-value was less than 0.05. This fulfils the second condition for measuring mediation effects.

Lastly the mediator variable TQM should relate to the dependent variable such that its beta is significant. This condition establishes the second stage of the mediation effect. The results as indicated in the Table 4.37 show. The regression coefficients for TQM is ($\beta = 0.549$ and the P-value is 0.01). Which shows that TQM predicts the overall performance of the organization, and the regression coefficient for differentiation strategy is ($\beta = 0.310$ and the P-value is 0.039). The p value for regression coefficient for TQM and differentiation strategy is significant at 95% level of confidence. Both TQM and differentiation strategy predicts the overall organization performance.

Table 4.37: Differentiation strategy on TQM and overall performance

	Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before TQM effects	OP < DS	0.660	0.688	0.152	0.010
	TQM < DS	0.790	0.643	0.199	0.010
After TQM effects	TQM < DS	0.881	0.682	0.198	0.010
	OP < DS	0.305	0.310	0.148	0.039
	OP < TQM	0.418	0.549	.0123	0.010

DS (Differentiation strategy); OP (overall performance)

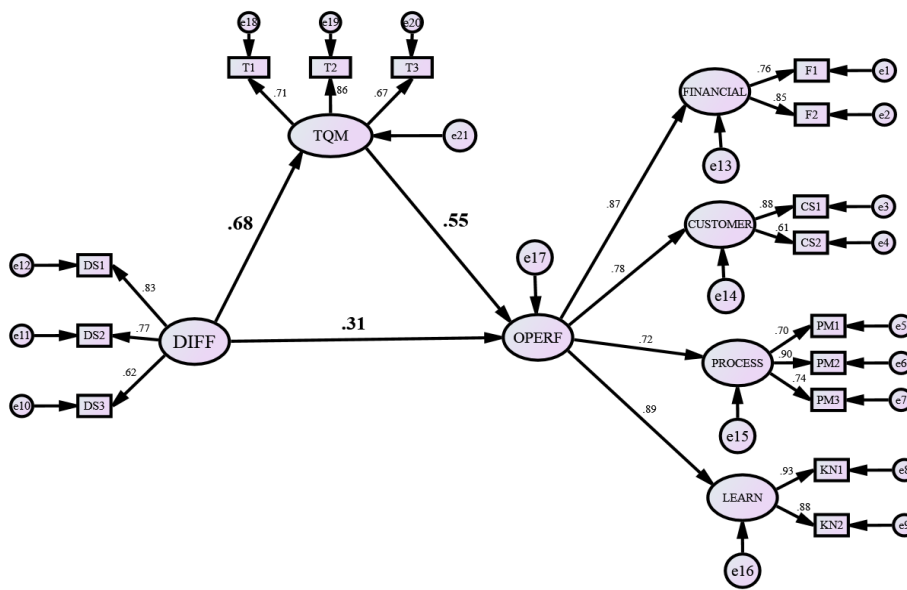


Figure 4.12: Differentiation Strategy on TQM and overall performance

Both TQM and differentiation strategy predicts the overall organization performance. However, the direct effect of differentiation strategy on overall performance has reduced from 0.688 to 0.310. Hence, we can conclude that TQM partially mediates the relationship between differentiation strategy and firm's overall performance. According to Baron and Kenny (1986) Partial mediation maintains that the mediating variable accounts for some, but not all, of the relationship between the independent variable and dependent variable. Partial mediation implies that there is not only a significant relationship between the mediator (TQM) and the dependent variable (organization overall performance), but also some direct relationship between the independent (differentiation strategy) and dependent variable (overall organization performance).

The significance of this indirect (mediation) effects were tested using bootstrapping procedures. The indirect (mediation) effect of TQM on the relationship between differentiation strategy and organization performance is significantly different from zero at the 0.01 confident level ($p=.010$ two-tailed). Based on bootstrap approximation obtained by constructing two-sided percentile- based confidence

intervals. This study therefore rejects the null hypothesis (H_{02} : TQM practice has no significant Mediating effect on the relationship between differentiation strategy and organization performance) and accepts the alternative hypothesis TQM has significant mediation effects on the relationship between differentiation strategy and organization performance.

The study shows that TQM partially mediates the relationship between differentiation strategy and overall organization performance. This finding are consistent findings of a study by Yunis *et al.* (2013); Faezi (2014) which revealed that TQM mediated the relationship between differentiation strategy and firm's overall performance. Under customer orientation TQM is closely related with differentiation strategy hence its mediating effects on the relationship. As further explained by Porter (1980) differentiation strategy aims to create products that customers see as unique. Firms that adopt this strategy select one or more attributes or characteristics that customers perceive as important and uniquely position itself to excel in those attributes leading to premium prices. Among these attributes includes quality. Quality is one of the attributes that characterizes differentiation strategy. This is because quality creates a competitive advantage through customer loyalty as well as minimizes customer's sensitivity to price. Companies that implement TQM have to explore and find ways to serve customers expectations at their best. This creates the impetus for companies to be innovative in developing and launching new products or services to match customers' needs this enables the organization focuses on gaining a market share advantage where they can outperform their competitors in terms of attracting more customers with distinguished products and customer satisfaction (Prajogo & Sohal, 2006). However, the direct effects of differentiation strategy on overall performance even after TQM implementation can be explained by resources incorporate in differentiation strategy but not incorporated under TQM philosophy such as marketing communication, market research and market development. Related to this finding are several studies that have identified positive relationship between TQM and innovation (Hung, Lien, Fang & McLean, 2010; Lee, Ooi, Tan & Chong, 2010). Arguments proposing a positive relationship between TQM and innovation posited that companies implementing TQM in their business systems and corporate culture are fertile environments because TQM promotes

principles coincident with innovation (Prajogo & Sohal, 2006) and product development.

4.10. TQM practice on Focus Strategy and Organization Performance.

The third objective was to examine the Mediating effect of TQM practice on the relationship between focus strategy and organization performance and to test the following hypothesis

H₀₃: TQM practice has no significant Mediating effect on the relationship between
Focus strategy and organization performance.

The study measured Organization performance using four dimensions (financial, customer satisfaction, internal business process and learning and growth) to provide a holistic view of the organization performance as recommended by Kaplan and Norton (1992) in the balance score card. To measure the mediating effect of TQM the study first assessed its effects of different all dimensions starting with financial performance, customer satisfaction performance, internal process performance, learning and growth and lastly its effect on the overall performance

Before testing for mediation effect the study established that the models used to measure mediation effects were fit. To ascertain that the model provided adequate fit for the data the study considered both absolute fit indices and incremental fit indices. The fit indices were used to verify that the three models used to test the hypothesis were adequate. The Table (4.38) shows RMSEA values of 0.097, 0.080, 0.000, 0.090 and 0.050 all within the acceptance range; GFI of 0.932, 0.952, 0.987, 0.926 and 0.895; AGFI of 0.828, 0.877, 0.950, 0.810 and 0.843 and lastly CFI index of 0.954, 0.974, 1.00, 0.956 and 0.976 this also falls within the acceptance range. RMSEA Values range from 0 to 1 with a smaller RMSEA value indicating better model fit (Marsh et al., 2011). RMSEA value of less than 0.05 is considered excellent, 0.05 to 0.08 is good while 0.1 is acceptable. (Hu & Bentler, 1999). According to McDonald and Ho (2002) GFI, AGFI and CFI values > 0.80 are acceptable. These show the models were fit.

Table 4.38: Model Fit Statistics TQM, Focus strategy and Organization performance

	Model 1	Model 2	Model 3	Model 4	Model 5
RMSEA	0.097	0.080	0.000	0.090	0.050
GFI	0.932	0.952	0.987	0.926	0.895
AGFI	0.828	0.877	0.950	0.810	0.843
CFI	0.954	0.974	1.00	0.956	0.976

Model 1; TQM, Focus strategy and financial performance

Model 2; TQM, Focus strategy and customer satisfaction

Model 3; TQM, Focus strategy and internal process performance

Model 4; TQM, focus strategy and organization learning and growth

Model 5; TQM, Focus strategy and overall performance

4.10.1 TQM practice on Focus Strategy and Financial performance.

To test the mediating effect of TQM on relationship between focus strategy and financial performance of the organization. First the independent variable (Focus strategy) should relate to the dependent variable (financial performance) such that Beta in equation one is significant. The study findings as indicated in the Table 4.39 showed that there was a positive significant relationship between focus strategy and organization performance ($\beta = 0.544$ and P-value <0.01) therefore a unit increase in focus strategy index led to an increase in manufacturing firm performance index by 0.544 since the p-value was less than 0.05. This fulfils the first condition for measuring mediation effects. The second condition involves testing if the independent variable (focus strategy) should relate to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of the mediation effect. The findings as indicated in Table 4.39 showed that there was a positive significant relationship between Focus strategy and TQM ($\beta =0.775$ and P-value <0.01). Since the p-value was less than 0.05. This fulfils the second mediation condition

Lastly the mediator variable TQM should relate to the dependent variable such that its beta is significant. This condition establishes the second stage of the mediation effect. The findings as shown in Table 4.39 shows the regression coefficients for TQM is ($\beta = 0.801$ and the P-value is 0. 01). Which shows that TQM predicts the financial performance of the organization, and the regression coefficient for Focus strategy is ($\beta = - 0.026$ and the P-value is 0.910). The p value for regression coefficient for TQM is significant at 99% level of confidence. Hence the study concludes that at 99% level of confidence TQM predict the financial performance of manufacturing firms in Kenya. Since the P-value for focus strategy is 0.910 it is not significant at 90% confident interval the study concludes that TQM completely mediate the relationship between focus strategy and organization performance.

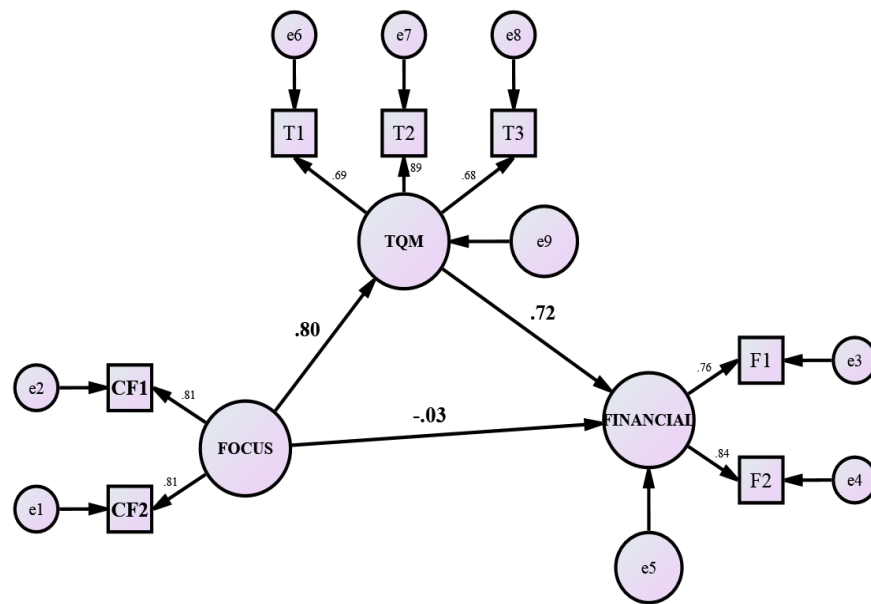


Figure 4.13: Focus strategy, TQM and Financial performance

Table 4.39: Focus strategy, TQM and financial performance

	Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before TQM mediation effects	FP < FS	0.491	0.544	0.135	0.010
	TQM < FS	0.655	0.775	0.130	0.010
After TQM mediation effects	TQM < FS	0.741	0.801	0.134	0.010
	FP < FS	-0.022	-0.026	0.196	0.910
	FP < TQM	0.659	0.721	0.230	0.004

The direct effects of focus strategy on financial performance are insignificant at 95% and 90% confidence interval. Hence, the study concludes that TQM completely mediate the relationship between focus strategy and financial performance. According to Baron and Kenny (1986) complete mediation in mediational hypothesis means that the independent variable does not at all affect the dependent variable after the mediator variable has controlled it. Hence the study concludes that TQM completely mediates the relationship between focus strategy and internal process performance. The relationship between Focus strategy and financial performance was fully mediated by TQM. The significance of this indirect effect was tested using bootstrapping procedures. The indirect (mediation) effect of TQM on the relationship between focus strategy and financial performance is significantly different from zero at the 0.01 confident level ($p=.010$ two-tailed) based on bootstrap approximation obtained by constructing two-sided percentile based confidence intervals.

The study shows that TQM completely mediates the relationship between focus strategy and organization financial performance. The full meditation effects can be explained by the similarities between focus strategy and Customer focus principle in TQM. Firms that implement TQM focus on providing superior value for their customers and improving efficiency of their processes. Continuous improvement of processes and service quality leads to increased revenue through product reliability

and cost reduction through process efficiency (Miguel et al., 2016). Customer satisfaction enabled firms have a market advantage resulting to growth of the market share in return it results to improved financial performance. Hence TQM mediates the relationship. These findings are closely related to the findings of Wang *et al.* (2011) and Lam *et al.* (2012) studies which point out that TQM model was positively related to the development of market oriented culture in the organization which enhances the implementation of focus strategy. The study therefore rejects the null hypothesis and accept the alternative hypothesis, TQM mediates the relationship between focus strategy and financial performance.

4.10.2 TQM practice on Focus Strategy and Customer Satisfaction

To test the mediating effect of TQM on relationship between focus strategy and customer satisfaction index. First the independent variable (focus strategy) should relate to the dependent variable (Customer satisfaction) such that Beta in equation one is significant. The study findings as indicated in the Table 4.40 showed that there was a positive significant relationship between focus strategy and customer satisfaction ($\beta = 0.431$ and P-value <0.01) therefore a unit increase in focus strategy index led to an increase in manufacturing firm performance index by 0.431 since the p-value was less than 0.05. This fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variable (focus strategy) should relate to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of the mediation effect. The findings as indicated in the Table 4.40 showed that there was a positive significant relationship between focus strategy and TQM ($\beta = 0.775$ and P-value <0.01). Since the p-value was less than 0.05 this fulfils the second mediation condition

Lastly the mediator variable TQM should relate to the dependent variable such that its beta is significant. This condition establishes the second stage of the mediation effect. The findings as shown in Table 4.40 shows the regression coefficient for TQM is ($\beta = 0.781$ and the P-value is 0.01 and for Focus strategy the regression coefficient is ($\beta = 0.006$ and the P-value is 0.976). The p value for regression

coefficient for TQM is significant at 99% level of confidence. However, the P value for Focus strategy 0.976 which is insignificant at 95% and 90% level of confidence. Hence the study concludes that at 95% level of confidence TQM predict customer satisfaction index of manufacturing firms but focus strategy does not predict the customer satisfaction levels.

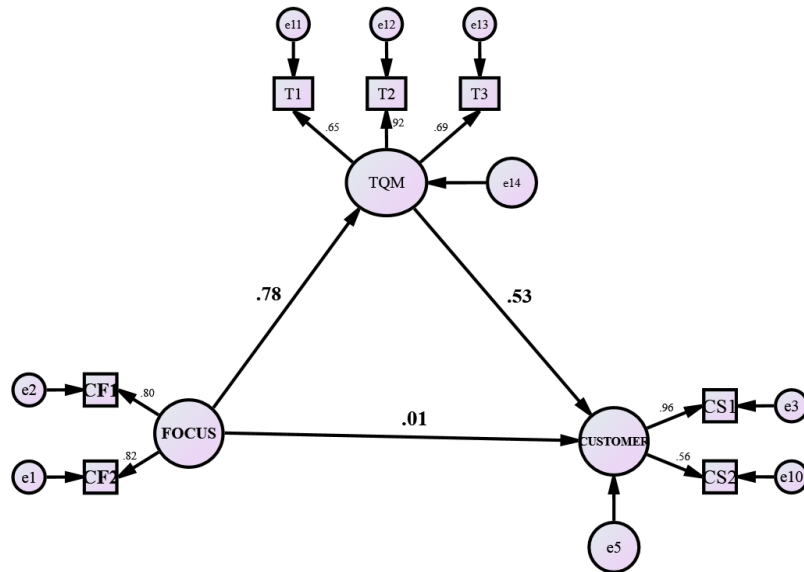


Figure 4.14: Focus strategy, TQM and customer satisfaction performance

Table 4.40: Focus strategy; TQM and customer satisfaction performance

	Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before TQM Mediation effects	TQM < FS	0.655	0.775	0.130	0.010
	CS < FS	0.399	0.431	0.117	0.010
After TQM mediation effects	TQM < FS	0.677	0.781	0.130	0.010
	CS < FS	0.006	0.006	0.196	0.976
	CS < TQM	0.572	0.529	0.230	0.012

FS (Focus strategy); CS (customer satisfaction performance)

From the findings, the direct effects of focus strategy were insignificant at 95% and 90% level of confidence. The study concludes that TQM fully mediate the relationship between focus strategy and customer satisfaction. According to Baron and Kenny (1986) complete mediation in mediational hypothesis means that the independent variable does not at all affect the dependent variable after the mediator variable has controlled it. The significance of this indirect effect was tested using bootstrapping procedures. The indirect effects were computed for each 5000 bootstrapped samples. The indirect (mediation) effect of TQM on the relationship between focus strategy and TQM is significantly different from zero at the 0.01 confident level ($p=0.010$ two-tailed). Based on a bootstrap approximation obtained by constructing two-sided percentile- based confidence intervals.

The study therefore concludes that TQM fully mediated the relationship between focus strategy and customer satisfaction. TQM represents a platform from which full advantage can be taken of marketing thus favouring the development of focus strategy. Both TQM and Focus strategy emphasizes on meeting customers' needs

and customer participation and the aim is to accomplish the same ultimate goal customer satisfaction. TQM and market orientation require organization structure designed around the flow of value adding captivities and should also empower employees to manage organization change. This findings are consistent Miguel, Heras-Saizarbitoria and Tari (2016) which showed that TQM through these dimensions; leadership, continuous process improvement and employee empowerment enable the design and management of processes geared to determine users' needs and expectations, their satisfaction and determine the level of customer satisfaction hence make a positive contribution to (market orientation)focus strategy. Hence TQM fully mediates this relationship. The study rejects the null hypothesis and accepts the alternative hypothesis. TQM mediates the relationship between focus strategy and customer satisfaction performance.

4.10.3 TQM practice on Focus Strategy and Internal Process Performance

To test the mediating effect of TQM on relationship between focus strategy and process management index. First the independent variable (focus strategy) should relate to the dependent variable (internal process management) such that Beta in equation one is significant. The study findings as indicated in the Table 4.41 showed that there was a positive significant relationship between focus strategy and internal process performance ($\beta = 0.454$ and P-value <0.01) therefore a unit increase in focus strategy index led to an increase in manufacturing firm performance index by 0.454. Since the P-value was less than 0.05. This fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variable (focus strategy) should relate to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of the mediation effect. The findings as indicated in the Table 4.41 showed that there was a positive significant relationship between Focus strategy and TQM ($\beta =0.775$ and P-value <0.01). Since the p-value was less than 0.05 this fulfils the second mediation condition

Lastly the mediator variable TQM should relate to the dependent variable such that beta in equation is significant. This condition establishes the second stage of the

mediation effect. The results as shown in Table 4.41 show the regression coefficients for TQM is ($\beta = 0.397$ and the P-value is 0.081). This does satisfy Baron and Kenny (1986) third condition for mediation. The regression coefficient for TQM is insignificant at 95% and but significant at 90% confident interval.

Table 4.41: Focus strategy on TQM and internal process performance

	Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before TQM mediation effects	IP < FS	0.715	0.454	0.201	0.010
	TQM < FS	0.655	0.775	0.130	0.010
After TQM mediation effects	TQM < FS	.677	.783	.132	0.010
	IP < FS	.518	.311	.318	.001
	IP < TQM	.173	.397	.345	.081

FS (Focus strategy); IP (Internal process performance)

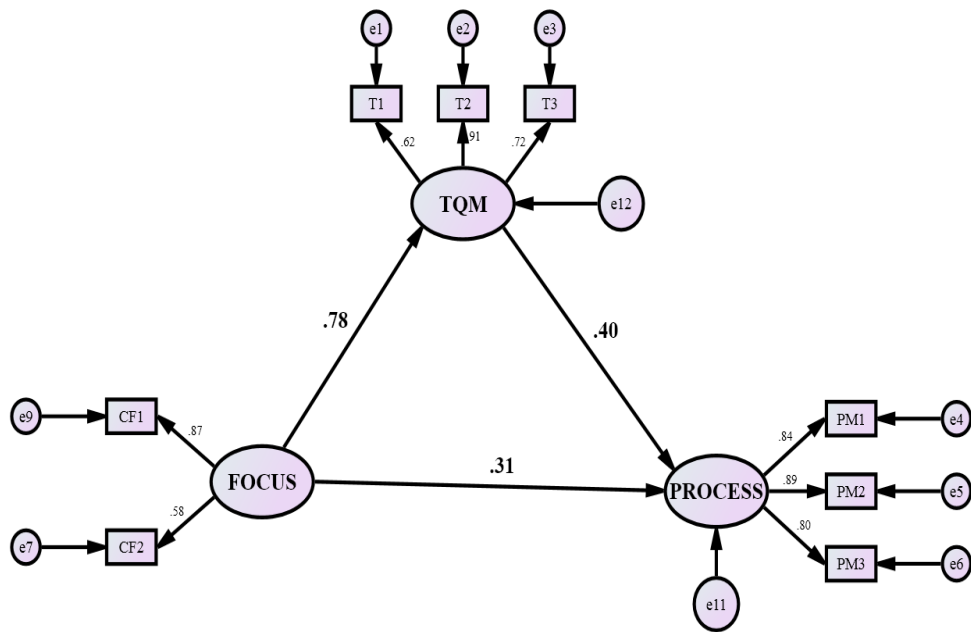


Figure 4.15: Focus strategy on TQM and internal process performance

At 90% confidence interval both TQM and Focus strategy does predict the internal process performance in manufacturing firms. However, the direct effect of focus strategy has reduced from 0.454 to 0.311. The study concludes that TQM partially mediates the relationship between focus strategy and internal process performance. According to Baron and Kenny (1986) Partial mediation maintains that the mediating variable accounts for some, but not all, of the relationship between the independent variable and dependent variable. Partial mediation implies that there is not only a significant relationship between the mediator (TQM) and the dependent variable (internal process performance), but also some direct relationship between the independent (focus strategy) and dependent variable (internal process performance). The significance of this indirect effect was further tested using bootstrapping procedures. The findings show that the indirect (mediation) effect of TQM on the relationship between focus strategy and internal process management is insignificantly different from zero at 95% confident level but significant at 90%

confident level ($p= 0.056$ two-tailed). The study concluded that TQM partially mediate the relationship between focus strategy and internal process performance.

Closely related with this study are findings are Zatzick *et al.* (2012) which shows that TQM is generally associated with internal process improvement and cost reduction. A Focus strategy enhances the value of a product or service through innovation and responsiveness to customer preferences, processes are designed focused on developing new products and services. Thus, it is expected that the firms will experience process misfit, however TQM focuses on improving process and efficiency within the processes by eliminating wastage. Organizations that implement TQM practices develop process improvement capabilities (Silva, Gomes, Lages & Pereira, 2014). These capabilities enhance the performance of focus strategy. Hung *et al.* (2010) posited that Knowledge Management initiatives have an indirect effect on innovation performance through TQM practice; by focusing on meeting customers' needs and encouraging organizations to continually identify new customer's needs and expectations, thereby inducing organizations to innovate, continually develop and introduce processes and products that meet markets changing needs. Hence TQM mediate the relationship between focus strategy and internal process improvement.

4.10.4 TQM; Focus Strategy and Organization Learning and Growth.

To test the mediating effect of TQM on relationship between Focus strategy and organization learning and growth. First the independent variable (focus strategy) should relate to the dependent variable (learning and growth) such that Beta in equation one is significant. The study findings as indicated in the Table 4.42 showed that there was a positive significant relationship between focus strategy and organization learning and growth. ($\beta = 0.608$ and P-value <0.01) therefore a unit increase in focus strategy index led to an increase in manufacturing firm leaning and growth performance index by 0.608 since the p-value was less than 0.05. This fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variable (focus strategy) should relate to the mediator variable (TQM) such that (β) in equation is significant.

This condition establishes the first stage of the mediation effect. The findings as indicated in Table 4.42 showed that there was a positive significant relationship between focus strategy and TQM ($\beta = 0.775$ and P-value is 0.01). The p-value was less than 0.05. This fulfils the second condition for measuring mediation effects.

Lastly the mediator variable TQM should relate to the dependent variable such that beta in equation is significant. This condition establishes the second stage of the mediation effect. The findings as indicated on Table 4.42 show the regression coefficients for TQM is ($\beta = 0.496$ and the P-value is 0.019). Which shows that TQM predicts organization learning and growth in the organization, and the regression coefficient for Focus strategy is ($\beta = 0.221$ and the P-value is 0.291). The p value for regression coefficient for TQM is significant at 99% level of confidence. Since the P-value for focus strategy is 0.291 it is not significant at 90% confident interval the study concludes that TQM Fully mediate this relationship.

Table 4.42: Focus strategy; TQM and learning and growth performance

	Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before TQM	OLS < FS	0.876	0.608	0.162	0.010
mediation effects	TQM < FS	0.655	0.775	0.130	0.010
After TQM	TQM < FS	0.754	0.805	0.134	0.010
mediation effects	OLG < FS	0.284	0.221	0.270	0.291
	OLG < TQM	0.682	0.496	0.291	0.019

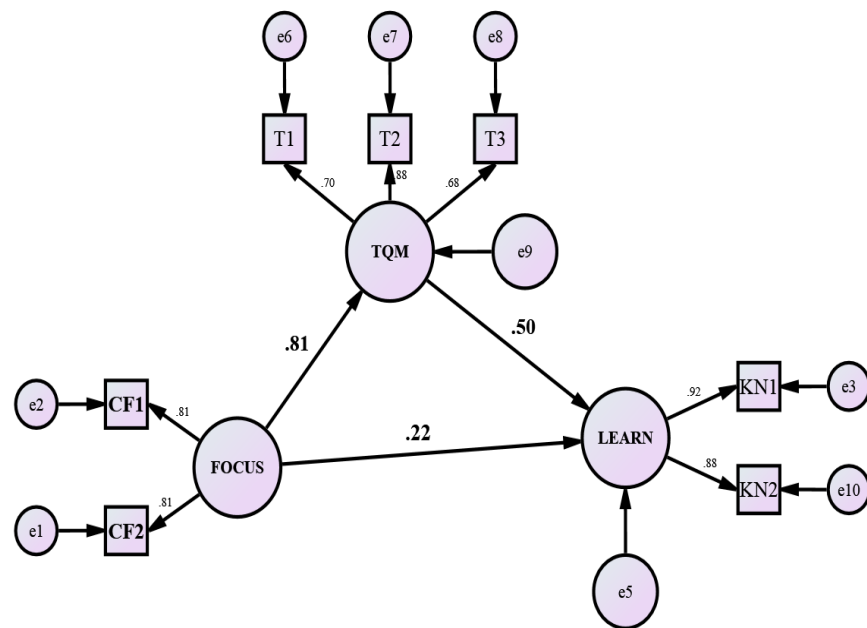


Figure 4.16: Focus strategy, TQM and learning and growth performance

The findings show the direct effects of focus strategy on learning and growth are insignificant at 90% confidence level. The study concludes that TQM completely mediate the relationship between focus strategy and organization learning and growth. According to Baron and Kenny (1986) complete mediation in mediational hypothesis means that the independent variable does not at all affect the dependent variable after the mediator variable has controlled it. The significance of the indirect effects was measured using bootstrap procedures. The indirect (mediation) effect of TQM on the relationship between focus strategy and organization learning and growth is not significantly different from zero at the 0.05 confident level ($p=.060$ two-tailed) but it is significant at 90% confident interval based on a bootstrap approximation obtained by constructing two-sided percentile- based confidence intervals.

The findings show that TQM mediate the relationship between focus strategy and organization performance. Focus strategy requires an organization to develop products and services unique to a certain market segment. TQM through customer focus practice supplies the organization with the customer needs information that results in generating new products to fulfil their customer demands. Closely related to these findings are the findings of Mehralian *et al.* (2017) and Ooi (2009) which showed there exist significant relationship between TQM and Knowledge management. Honarpour *et al.* (2012) study hypothesized and revealed that there was significant relationship between TQM, innovation and knowledge management. Hence TQM mediates the relationship between focus strategy and organization learning. The study rejects the null hypothesis and accept alternative hypothesis.

4.10.5 TQM; Focus Strategy and Overall Performance of the Organization.

To test the mediating effect of TQM on relationship between focus strategy and overall performance of the organization. First the independent variable (focus strategy) should relate to the dependent variable (overall performance) such that Beta in equation one is significant. The study findings as indicated in the Table 4.43 showed that there was a positive significant relationship between focus strategy and organization performance ($\beta = 0.649$ and P-value <0.01) therefore a unit increase in Focus strategy index led to an increase in manufacturing firm performance index by 0.649 since the p-value was less than 0.05. This fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variable (focus strategy) should relate to the mediator variable (TQM) such that (β) in equation is significant. This condition establishes the first stage of the mediation effect. The findings as indicated in Table 4.43 showed that there was a positive significant relationship between focus strategy and TQM ($\beta =0.775$ and P-value <0.01). The p-value was less than 0.05. This fulfils the second condition for measuring mediation effects.

Lastly the mediator variable TQM should relate to the dependent variable such that beta in equation is significant. This condition establishes the second stage of the mediation effect. The findings as shown in Table 4.43 shows the regression coefficients for TQM is ($\beta = 0.621$ and the P-value is 0.007). Which shows that TQM predicts the overall performance of the organization, and for focus strategy the regression coefficient is ($\beta = 0.148$ and the P-value is 0.488).

Table 4.43: Focus strategy on TQM and overall performance

		Relationship	Regression Weights	Standardized Regression Weights	S.E.	P
Before TQM mediation effects	TQM < FS	0.655	0.775	0.130	0.010	
	OP < FS	0.477	0.649	0.130	0.010	
After TQM Mediation effects	TQM < FS	.772	.809	.135	0.010	
	OP < FS	.105	.148	.152	.488	
	OP < TQM	.461	.621	.172	.007	

FS (Focus strategy) OP (overall performance)

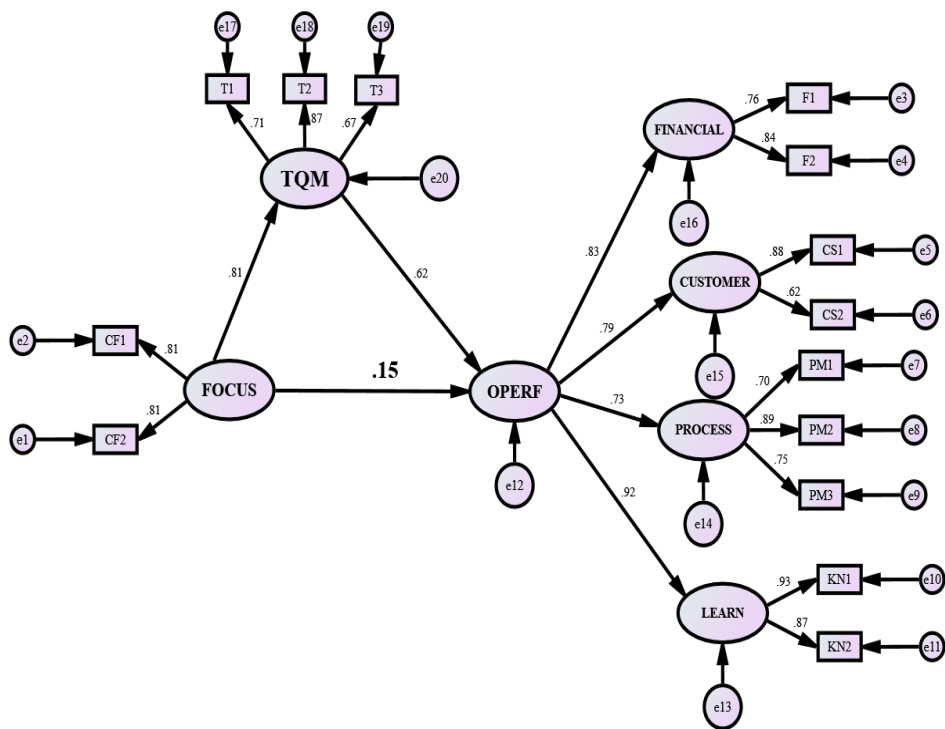


Figure 4.17: Focus strategy on TQM and overall performance

The p value for regression coefficient for TQM is significant at 95% level of confidence and the P-value for Focus strategy is insignificant at 95% and 90% level of confidence. Hence the study concludes that at 95% level of confidence TQM predict the overall performance index of manufacturing firms. The study also concluded that TQM completely mediate the relationship between Focus strategy and organization performance. According to Baron and Kenny (1986) complete mediation in mediational hypothesis means that the independent variable does not at all affect the dependent variable after the mediator variable has controlled it. The significance of this indirect effect was further tested using bootstrapping procedures. The indirect effects were computed for each 5000 bootstrapped samples and the indirect (mediation) effect of TQM on overall performance was found not significantly different from zero at 95% confidence level (p=.076 two-tailed) but significant at 90% confident interval. The study concludes that at 90% confidence

level TQM completely mediate the relationship between focus strategy and organization overall performance

The study rejects the null hypothesis and accepts the alternative hypothesis, TQM fully mediates the relationship between focus strategy and overall organization performance. This is because the similarity between TQM philosophy and Focus strategy is enormous. Quality is no longer defined in terms of products with zero defects rather is increasingly understood in terms of the value generated by a system that is characterized by continuous improvement in every aspect with the aim of satisfying the explicit and implicit expectations of the customers and all relevant stakeholders. Quality is the element that focuses the attention and commitment of the whole firm on customer satisfaction to create and diffusion of value and for the customer. Focus strategy aim at identifying a niche in the market and developing products that satisfy this segment. TQM represents a crucial input in the development of Focus strategy, they both advocate and implement a company strategy of customer orientation. Hence TQM fully mediates the relationship between focus strategy and overall performance. Closely related to this are the findings of Mele *et al.* (2007) which concludes that TQM represents a platform for full realization of marketing potential capabilities and that TQM and marketing are complementary and synergistic in enabling and effective management of the process of value creation and delivery to the customers. Quality Guru's Ishikawa (1972), Crosby (1979), Deming (1982) and Juran (1988) conversed that main focus for TQM is to establish a management system and corporate culture to ensure that customer satisfaction is enhanced which involves a systematic method of continuous improvement of organization processes, resulting in high quality products and service. Su *et al.* (2010) posits that Customer-oriented culture is essential for quality and extension of customer-knowledge creation and dissemination, and increasing responsiveness to customer needs. Possessing customer knowledge will assist an organization to access new customer segments achieving customer loyalty among its clients and provide customised products or services that mirror customer needs. Organization that implement TQM in their strategy and corporate culture are by nature, market oriented organizations (Samat et al., 2006). Wang, Chen, and Chen, (2012) posits that total quality management (TQM) and market orientation both

focus on customer needs and satisfaction. Market-oriented firms have been shown to be successful at maintaining strong competitive positions over time (Boyd, Walker, Mullin & Larreche, 2013) and TQM-adopting firms obtain a competitive advantage over firms that do not adopt TQM.

4.11 TQM, Generic Strategies and Organization Performance

The fourth objective was to examine the Mediating effect of TQM practice on the relationship between generic strategies and organization performance and to test the following hypothesis

H₀₄: TQM practice has no significant Mediating effect on the relationship between generic strategies and organization performance.

The study measured Organization performance using four dimensions (financial, customer satisfaction, internal business process and learning and growth) to provide a holistic view of the organization performance as recommended by Kaplan and Norton (1992) in the balance score card. To measure the mediating effect of TQM the study first assessed its effects of different performance measures. Starting with financial performance, customer satisfaction performance, internal process performance, learning and growth and lastly its effect on the overall performance.

Before testing for mediation effect the study established that the five models used to measure mediation effects were fit. To ascertain that the model provided adequate fit for the data the study considered both absolute fit indices and incremental fit indices. The fit indices were used to verify that the five models used to test the hypothesis were adequate. The Table 4.44 shows RMSEA values of 0.089, 0.085, 0.066, 0.072 and 0.062 all within the acceptance range; GFI of 0.904, 0.911, 0.875, 0.879 and 0.827; AGFI of 0.863, 0.837, 0.815, 0.813 and 0.807 and lastly CFI index of 0.919, 0.944, 0.937, 0.919 and 0.932 this also falls within the acceptance range. RMSEA Values range from 0 to 1 with a smaller RMSEA value indicating better model fit (Marsh et al., 2011). RMSEA value of less than 0.05 is considered excellent, 0.05 to 0.08 is good while 0.1 is acceptable. (HU & Bentley 1999). According to McDonald

and how (2002) GFI, AGFI and CFI values > 0.80 are acceptable. These shows the models were fit.

Table 4.44: Model Fit Statistics TQM, Generic strategies and Organization performance

	Model 1	Model 2	Model 3	Model 4	Model 5
RMSEA	0.089	0.085	0.066	0.072	0.062
GFI	0.904	0.911	0.875	0.879	0.827
AGFI	0.863	0.837	0.815	0.813	0.807
CFI	0.919	0.944	0.937	0.919	0.932

Model 1; TQM, and financial performance

Model 2; TQM, Focus strategy and customer satisfaction

Model 3; TQM, Focus strategy and internal process performance

Model 4; TQM, focus strategy and organization learning and growth

Model 5; TQM, Focus strategy and overall performance

4.11.1 TQM, Generic Strategies and Financial performance

To test the mediating effect of TQM on relationship between generic strategies strategy and financial performance of the organization. First the independent variables generic strategies (cost leadership strategy, differentiation strategy and Focus strategy) should relate to the dependent variable (financial performance) such that Beta in equation one is significant. The study findings as indicated in the Table 4.45 showed that there was a positive significant relationship between generic strategies and financial performance. The regression coefficient for generic strategy ($\beta = 0.851$ and P-value = 0.01) therefore a unit increase in generic strategy index led to an increase in manufacturing firm financial performance index by 0.851 since the p-value was less than 0.05. Fulfilling the mediation first condition. The second condition involves testing if the independent variables generic strategies (focus strategy, cost leadership and differentiation) should relate to the mediator variable

(TQM) such that (β) values for all the variable are significant; this condition establishes the first stage of the mediation effect. The findings as indicated in the Table 4.45 showed that at 95% confident level there was a positive significant relationship between generic strategies and TQM ($\beta = 0.983$ and P-value is 0.011) This fulfils the second condition for measuring mediation effects.

Lastly the mediator variable TQM should relate to the dependent variable (financial performance) such that beta in equation is significant. This condition establishes the second stage of the mediation effect. The regression coefficients as shown in Table 4.45 for TQM is ($\beta = 0.446$ and the P-value is 0.01). Which shows that TQM does predicts the financial performance of the organization, in cases where the organization has implemented generic strategies, the study also shows that generic strategy with regression coefficient ($\beta = 0.379$ and P-value of 0.01) has significant relationship with financial performance of manufacturing firms in Kenya. The study shows that both TQM and generic strategies determines financial performance of manufacturing firms in Kenya.

Table 4.45: Generic strategies; TQM and financial performance

	Relationship	Standardized Regression Weights	S.E.	P
Before TQM	TQM < GS	0.983	0.712	0.011
Mediation effects	FP < GS	0.851	0.238	0.010
After TQM mediation effects	TQM < GS	0.851	0.722	0.010
	FP < GS	0.379	0.161	0.010
	FP < TQM	0.446	0.471	0.010

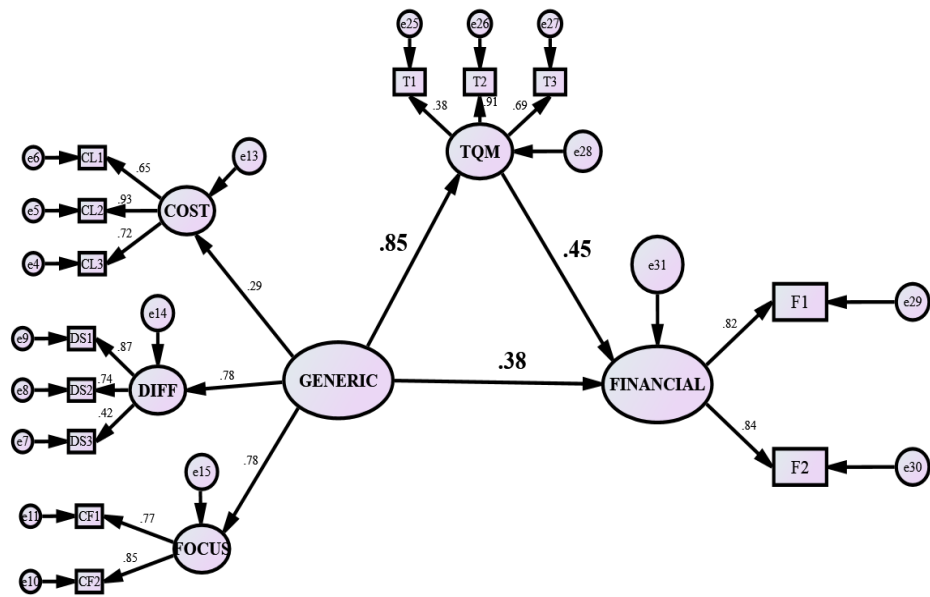


Figure 4.18: Generic strategies, TQM and Financial performance

The findings show that both TQM and generic strategies determine the financial performance of organizations. However, the direct effects of generic strategies on financial performance of manufacturing firms have reduced from 0.851 to 0.379. The study therefore concludes that TQM partially mediates the relationship between generic strategies and financial performance. According to Baron and Kenny (1986) Partial mediation maintains that the mediating variable accounts for some, but not all, of the relationship between the independent variable and dependent variable. Partial mediation implies that there is not only a significant relationship between the mediator (TQM) and the dependent variable (financial performance), but also some direct relationship between the independent (generic strategies) and dependent variable (financial performance). The significance of this indirect effect (mediation effects) was tested using bootstrapping procedures as recommended by Hayes (2013). The indirect (mediation) effect of TQM on the relationship between generic strategies and financial performance is significantly different from zero at the 0.05 confident level ($p=.012$ two-tailed). Based on bootstrap approximation obtained by constructing two-sided bias-corrected confidence intervals. The study therefore

concluded that TQM partially mediate the relationship between generic strategies and financial performance of the organization.

This result shows that TQM partially mediates the relationship between generic strategies and financial performance. Consistent with this study are findings are Zatzick *et al.* (2012) which shows that TQM have significant mediating effect on the relationship between cost leadership strategy and organization performance. The study is similar to Prajogo and Sohal (2006) study shows TQM has significant mediating effect on differentiation strategy. This is because improved quality should shrink costs and thus yield positive outcome for financial performance; superior quality products also enhance the retention rate of existing customers and attract new ones thus strengthening market share and revenues. Improved product quality or services should increase consumer loyalty and reduce customer complains. Hence TQM mediates the relationship between generic strategies and financial performance. This study shows that TQM only partially mediated the relationships a significant portion of variance in performance is directly explained by strategies without being mediated by TQM. This finding is important in the sense that when pursuing TQM under the context of generic strategies, organization also needs to furnish certain resources that are not accommodated by TQM such as economies of scales, market communication, market research, market development, and adopted of technology.

4.11.2 TQM practice on Generic Strategies and Customer Satisfaction.

To test the mediating effect of TQM on relationship between generic strategies strategy and customer satisfaction of the organization. First the independent variables generic strategies (differentiation strategy, cost leadership strategy and Focus strategy) should relate to the dependent variable (customer satisfaction) such that Beta in equation one is significant. The study findings as indicated in Table 4.46 showed that there was a positive significant relationship between; generic strategies and customer satisfaction. The regression coefficient for generic strategies ($\beta = 0.624$ and P-value = 0.01) therefore a unit increase in generic strategy index led to an

increase in manufacturing firm customer satisfaction index by 0.624 since the p-value was less than 0.05.

The second condition involves testing if the independent variables generic strategies (Focus strategy, cost leadership and differentiation) should relate to the mediator variable (TQM) such that (β) values for all the variable are significant; this condition establishes the first stage of the mediation effect. The findings as shown in Table 4.46 showed that at 95% confident level there was a positive significant relationship between generic strategies and TQM ($\beta = 0.983$ and P-value < 0.011) This fulfils the second condition for measuring mediation effects.

Finally, the mediator variable TQM should relate to the dependent variable (customer satisfaction) such that beta in equation is significant. This condition establishes the second stage of the mediation effect. The Table 4.46 shows the regression coefficients for TQM is ($\beta = 0.358$ and the P-value is 0.01). This shows that TQM predicts customer satisfaction indices in manufacturing firms in Kenya, study also shows that generic strategies ($\beta = 0.302$ and a P-value of 0.01); has significant relationship with customer satisfaction performance at confident level of 99 %.

Table 4.46: Generic strategies on TQM and customer satisfaction performance

	Relationship	Standardized regression	P value	S.E
Before TQM	TQM < GS	0.983	0.011	0.712
mediating effects	CS < GS	0.624	0.010	0.260
After TQM	TQM < GS	0.844	0.010	0.109
mediating effects	CS < TQM	0.358	0.010	0.065
	CS < GS	0.302	0.010	0.49

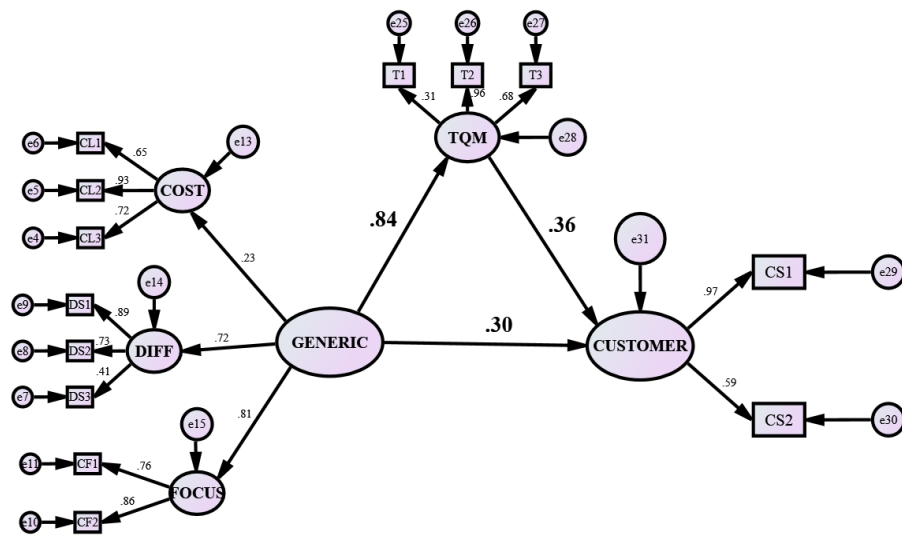


Figure 4.19: Generic strategies on TQM and Customer satisfaction performance

Both generic strategies and TQM predicts customer satisfaction levels in the manufacturing firms in Kenya. However, the direct effects of generic strategies on customer satisfaction have reduced from (0.624 to 0.302). Hence the study concludes that TQM partially mediate the relationship between generic strategies and customer satisfaction levels in the Kenyan manufacturing firms. According to Baron and Kenny (1986) Partial mediation maintains that the mediating variable accounts for some, but not all, of the relationship between the independent variable and dependent variable. Partial mediation implies that there is not only a significant relationship between the mediator (TQM) and the dependent variable (customer satisfaction performance), but also some direct relationship between the independent (generic strategies strategy) and dependent variable (customer satisfaction). The significance of this indirect effect (mediation effects) was tested using bootstrapping procedures as recommended by Hayes (2013). The results show that the indirect (mediation) effect of TQM on the relationship between generic strategies and customer satisfaction is significantly different from zero at the 0.01 confident level ($P = 0.010$)

two-tailed) based on bootstrap approximation obtained by constructing two-sided percentile- based confidence intervals

The study shows that TQM partially mediates the relationship between generic strategies and customer satisfaction. TQM provides resources that are invisible intangible and extremely difficult for a competitor to copy for example; a company unique culture, transformational leaders, superior customer service. Companies that implement TQM have to explore and find ways to serve customers expectations at their best. Consistent to this finding are Faezi (2014) and Prajogo and Sohal (2006). Studies which showed TQM practice customer orientation helped organization to gaining market advantage and outperform their competitor in terms of attracting more customers with distinguished products and charge premium prices. Similarly, studies (Kim, 2016 and Kumar et al., 2009) hypothesized and found evidence that there was strong significant relationship between TQM and customer satisfaction. It is imperative to note that TQM does not fully mediated the relationships; a significant portion of variance in performance is directly explained by strategies without being mediated by TQM. This finding is important in the sense that when pursuing TQM under the context of generic strategies, organization also needs to furnish certain resources that are not accommodated by TQM such as market research, market development, electronic marketing and marketing communication. The study rejects the Null hypothesis and accepts the alternative hypothesis that TQM mediates the relationship between generic strategies and customer satisfaction performance.

4.11.3 TQM on Generic Strategies and Internal Process Management

To test the mediating effect of TQM on relationship between generic strategies strategy and internal process performance. First the independent variables generic strategies (differentiation strategy, cost leadership strategy and Focus strategy) should relate to the dependent variable (internal process management performance) such that Beta in equation one is significant. The study findings as indicated in the Table 4.47 showed that there was a significant relationship between generic strategies ($\beta = 0.688$ and P-value = 0.01) and organization internal process

performance. Therefore, a unit increase in generic strategies led to an increase in manufacturing firm process performance index by 0.688 since the p-value was less than 0.05. This fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variables generic strategies (Focus strategy, cost leadership and differentiation) should relate to the mediator variable (TQM) such that (β) values for all the variable are significant; this condition establishes the first stage of the mediation effect. The findings as indicated in Table 4.47 showed that at 95% confident level there was a positive significant relationship between generic strategies and TQM ($\beta = 0.983$ and P-value < 0.011) This fulfils the second condition for measuring mediation effects.

Lastly the mediator variable TQM should relate to the dependent variable such that beta in equation is significant. This condition establishes the second stage of the mediation effect. The findings as indicated in Table 4.47 shows the regression coefficients for TQM is ($\beta = 0.334$ and the P-value is 0.0421). which shows that TQM does predicts performance of process management of the organization, in cases where the organization has implemented generic strategies, the study also shows that generic strategies ($\beta = 0.290$ and P-value of 0.0432) have a significant effect on the performance of internal processes.

Table 4.47: Generic Strategies on TQM and Internal Process Performance

		Relationship	Standardized regression	P-value
Before	TQM	TQM < GS	0.983	0.0110
		IP < GS	0.688	0.0100
After	TQM	TQM < GS	0.868	0.0254
		IP < TQM	0.334	0.0421
		IP < GS	0.290	0.0432

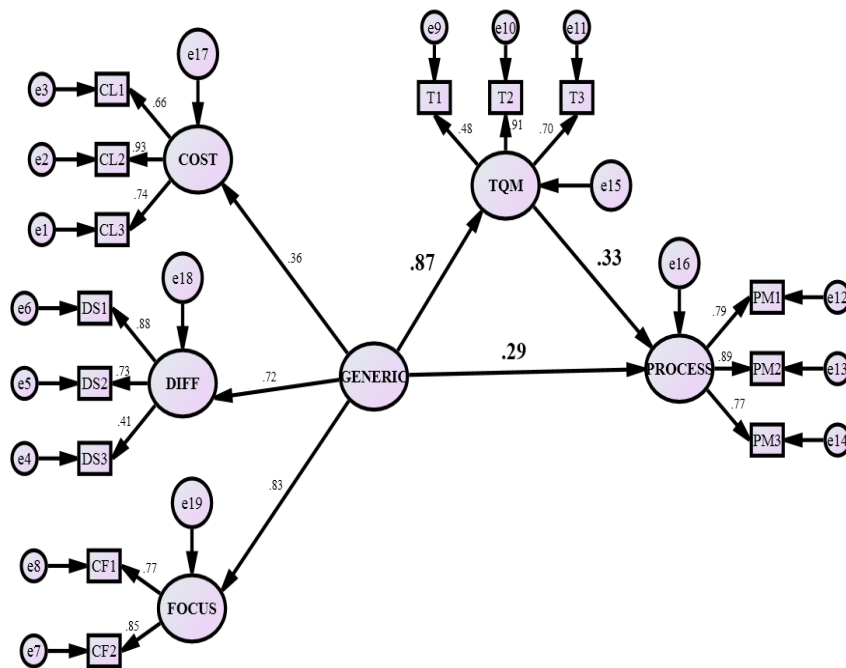


Figure 4.20: Generic Strategies on TQM and Internal Process Performance

The study findings show that both TQM and generic strategies predicts the internal process performance of the organization. However, the direct effects of generic strategies on internal process performance have reduced from 0.688 to 0.290. Hence the study concludes that TQM partially mediate the relationship between generic strategies and internal process performance in the Kenyan manufacturing firms. According to Baron and Kenny (1986) Partial mediation maintains that the mediating variable accounts for some, but not all, of the relationship between the independent variable and dependent variable. Partial mediation implies that there is not only a significant relationship between the mediator (TQM) and the dependent variable (customer satisfaction performance), but also some direct relationship between the independent (generic strategies strategy) and dependent variable (internal process performance).

The study shows that TQM does mediate the relationship between generic strategies and internal process performance. The significance of this indirect effect was tested using bootstrapping procedures. Indirect effects were computed for each 5000 bootstrapped samples. The findings show that the indirect (mediation) effect of TQM on the relationship between generic strategies and internal process is significantly different from zero at the 0.01 confident level ($p=.010$ two-tailed). Based on bootstrap approximation obtained by constructing two-sided percentile-based confidence intervals.

The study revealed that TQM partially mediate the relationship between generic strategies and internal process performance. Applying TQM in the organization provides a good environment and conditions that lead to generate distinctive capabilities in different aspects of the organization. Successful TQM implementation requires several practices leadership commitment, customer focus, people management, process management, supplier management, and quality data reporting. Implementing these practices lead to generate several capabilities within the organization (Yusr, Othman & Mokhtar, 2012) leading to development of better processes. For example leadership commitment to achieve quality performance provides an environment that encourages the trust and cooperation among employees which in turn, lead to knowledge flow across the organization as a result the organization develops innovation capabilities (Ju, Lin, Lin & Kuo, 2006); Customer focus orientation support the organization with the necessary feedback regarding the customers' attitudes, preferences and complaints, these information help the organization to improve their customer management processes; and the ability to consistently improve current processes and learn new ones is termed continuous improvement capability. Continuous process improvement Capabilities are valuable because they give firm a lower cost *structure* or basis of differentiation, (Porter, 1980). Consistent to this are the findings of Hung *et al.* (2010) study also found out that TQM greatest benefits is its emphasis on continuous improvement of business processes so that it can improve organizations competitiveness, effectiveness and flexibility. Similarly, Zatzick *et al.* (2012) which shows that TQM have significant effect on the relationship between cost leadership strategy and internal process

performance. Lastly Prajogo and Sohal (2006) study which showed that TQM did mediate the relationship between differentiation strategy and process innovation.

TQM only partially mediated the relationships a significant portion of variance in performance is directly explained by strategies without being mediated by TQM. This finding is important in the sense that when pursuing TQM under the context of generic strategies, organization also needs to furnish certain resources that are not accommodated by TQM such as economies of scales, market communication, market research, market development, and adopted of technology.

4.11.4 TQM, Generic Strategies and Learning and Growth

To test the mediating effect of TQM on relationship between generic strategies strategy and knowledge management. First the independent variables generic strategies (differentiation strategy, cost leadership strategy and Focus strategy) should relate to the dependent variable (knowledge management performance) such that beta in equation one is significant. The study findings as indicated in Table 4.48 showed that there was a significant relationship between generic strategies and knowledge management ($\beta = 0.812$ and P-value = 0.01) therefore a unit increase in generic strategies index led to an increase in manufacturing firm knowledge management by 0.812 since the p-value was less than 0.05. This fulfils the first condition for measuring mediation effects.

The second condition involves testing if the independent variables generic strategies (Focus strategy, cost leadership and differentiation) should relate to the mediator variable (TQM) such that (β) values for all the variable are significant; this condition establishes the first stage of the mediation effect. The findings as indicated in Table 4.48 showed that at 95% confident level there was a positive significant relationship between generic strategies and TQM ($\beta = 0.983$ and P-value <0.011) This fulfils the second condition for measuring mediation effects.

Lastly the mediator variable TQM should relate to the dependent variable such that beta in equation is significant. This condition establishes the second stage of the mediation effect. The findings as indicated in Table 4.48 shows the regression

coefficients for TQM is ($\beta = 0.418$ and the P-value is 0.01) fulfilling the last step in the test for mediation effect. The study also shows that generic strategies with regression coefficient ($\beta = 0.364$ and the P-value of 0.01) has significant relationship on organization learning and growth.

Table 4.48: Generic Strategies; TQM and Learning and Growth

		Relationship	Regression weight	p
Before	TQM	OLG < GS	0.812	0.010
mediation effects		TQM < GS	0.983	0.011
After TQM mediation effects		TQM < GS	0.872	0.010
		OLG < GS	0.364	0.010
		OLG < TQM	0.418	0.010

GS(Generic strategies); OLG(Organization learning and growth)

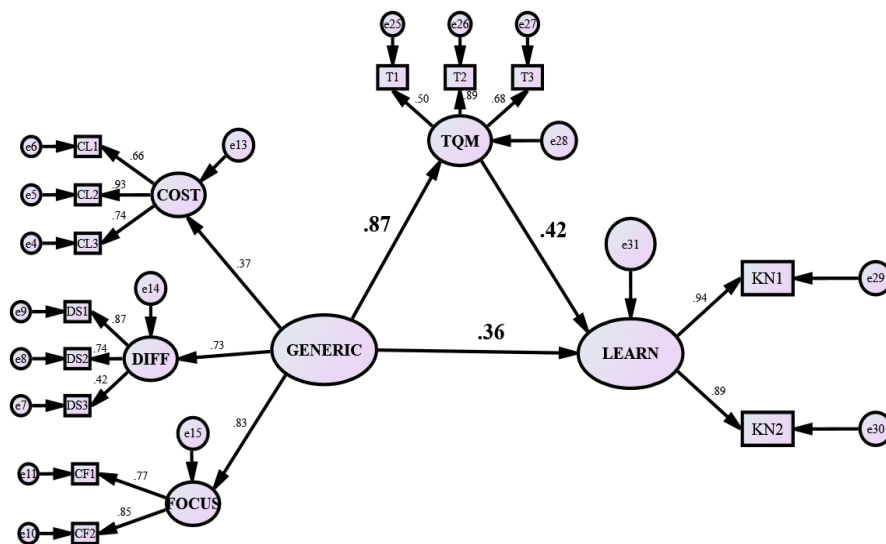


Figure 4.21: Generic Strategies, TQM and Learning and Growth

The study shows that both TQM and generic strategies determines organization learning and growth. However, the direct effects of generic strategies on organization learning and growth have reduced from 0.812 to 0.364. According to Baron and Kenny (1986) Partial mediation maintains that the mediating variable accounts for some, but not all, of the relationship between the independent variable and dependent variable. Partial mediation implies that there is not only a significant relationship between the mediator (TQM) and the dependent variable (organization learning and growth), but also some direct relationship between the independent (generic strategy) and dependent variable (organization learning and growth).

The study concludes that TQM partially mediates the relationship between generic strategies and organization learning and growth. The significance of this indirect effect was tested using bootstrapping procedures. The indirect (mediation) effect of TQM on the relationship between generic strategies and organization learning and growth is significantly different from zero at the 0.01 confident level ($p=.010$ two-tailed). This is based bootstrap approximation obtained by constructing two-sided percentile- based confidence intervals. However, the direct effects of generic strategies on organization learning and growth have reduced from (0.812 to 0.364). The indirect (mediation) effect of TQM on the relationship between generic strategies and organization learning and growth is significantly different from zero at the 0.01 confident level ($p=.010$ two-tailed). This is based bootstrap approximation obtained by constructing two-sided percentile- based confidence intervals.

The study shows that TQM mediates the relationship between generic strategies and organization learning and growth. The mediation effect can be explained by the fact that TQM enables create “learning organization” which evaluates, stores, uses and commercializes expertise and authentic knowledge of the employees in the organizations creating organization more powerful and valuable and more competitive than its competitors. TQM practices; Customer focus practice supplies the organization with customer needs information that results in generating new ideas to fulfil their customers’ demands; continuous improvement practice improves know-how within the organization by providing the changes in process and adapting new methods to do work. Suppliers generally possess superior expertise and knowledge

which may be crucial for new product development (Honarpour et al., 2012) and people management develops autonomy and ideas exchange among employees that result in innovation. Leading to new product development.

Closely related to this finding are the findings of Duran *et al.* (2014) which showed that Enterprises that have implemented TQM practices are better in the fields of obtaining knowledge from customers and participation of employees in dissemination of knowledge. Hung *et al.* (2010) study also found out that TQM greatest benefit is its emphasis on continuous improvement of business processes so that it can improve organizations competitiveness, effectiveness and flexibility. To achieve continuous improvement firms must promote organization learning to enhance knowledge that can be utilized in future (Islam et al, 2011). Hung *et al.* (2010) posited that Knowledge Management initiatives have an indirect effect on innovation performance through TQM practice. Hence TQM partially mediates the relationship between generic strategies and organization learning and growth. TQM only partially mediated the relationships a significant portion of variance in performance is directly explained by strategies without being mediated by TQM. This finding is important in the sense that when pursuing TQM under the context of generic strategies, organization also need to furnish certain resources that are not accommodated market communication, networking, market research, market development, and in order to increase its ability to learn and grow.

4.11.5 TQM practice on Generic Strategies and Organization Performance

To test the mediating effect of TQM on relationship between generic strategies strategy and overall performance. Generic strategies (differentiation strategy, cost leadership strategy and Focus strategy) should relate to the dependent variable (overall organization performance) such that Beta in equation one is significant. The study findings as shown in Table 1.49 showed that there was a significant relationship between the generic strategies and organization performance. The regression coefficient for generic strategies ($\beta = 0.951$ and P-value = 0. 01) therefore a unit increase in generic strategies strategy index led to an increase in manufacturing

performance by 0.951 since the p-value was less than 0.05 as indicated in the table. This fulfils the first condition for measuring mediation effects.

Substituting the figures into the OLS Model ($Y = \beta_0 + \beta_1X + \varepsilon$) the following equation is obtained

$$Y = \beta_0 + 0.951X + \varepsilon \quad \text{Equation 1}$$

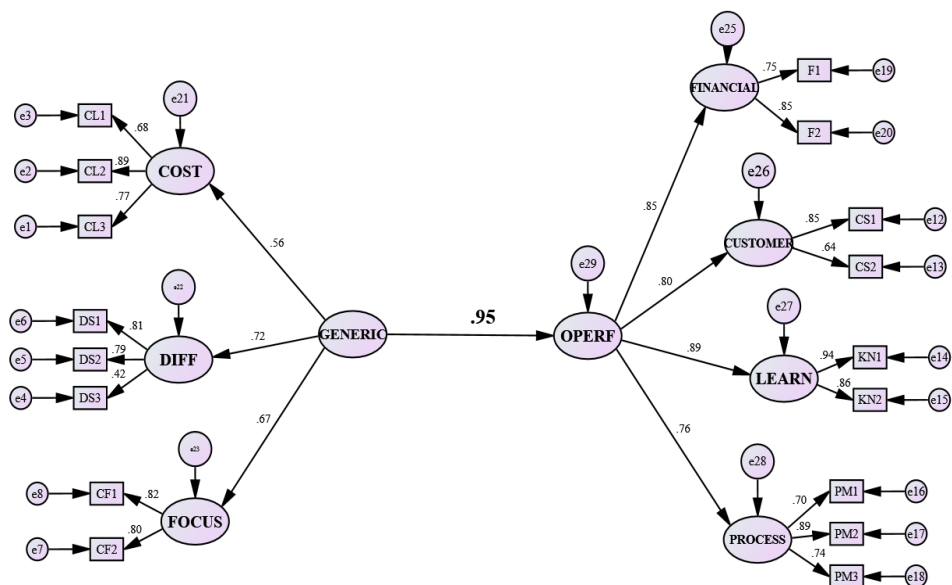


Figure 4.22: Generic strategies on Overall performance

Table 4.49: Generic strategies on Overall performance

	Regression Weights	Standardized Regression Weights	S.E.	P
Generic strategies	1.770	0.951	0.621	0.010

Dependent variable: overall performance

The second condition involves testing if the independent variables generic strategies (focus strategy, cost leadership and differentiation) should relate to the mediator variable (TQM) such that (β) values for all the variable are significant; this condition establishes the first stage of the mediation effect. The findings showed that at 95% confident level there was a positive significant relationship between generic strategies and TQM ($\beta = 0.983$ and P-value < 0.011) Substituting this into the OLS model $M = \beta_0 + \beta_2 X + \varepsilon$ the following equation is obtained

$$M = \beta_0 + 0.983X + \varepsilon$$

Equation 2

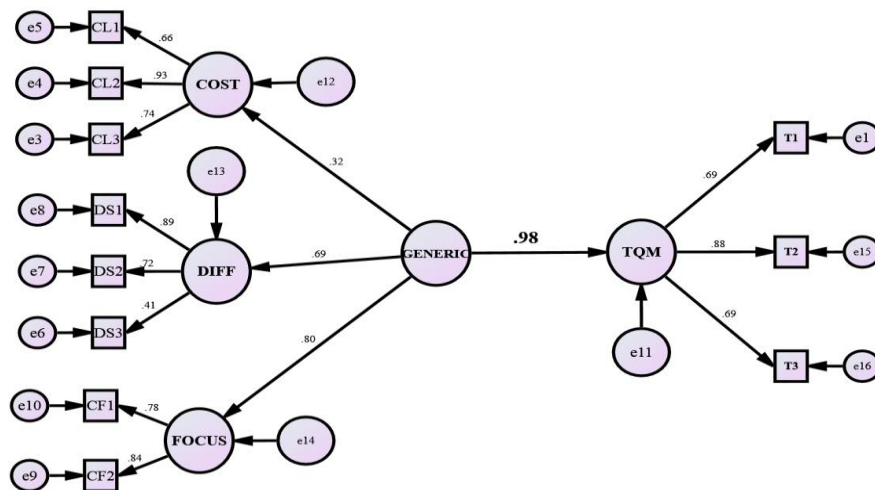


Figure 4.23: Generic strategies on TQM

Table 4.50: Generic strategies on TQM

	Regression Weights	Standardized Weights	Regression S.E.	P
Generic strategy	1.860	0.983	0.712	0.011

Dependent variable: Total Quality Management

Lastly the regression coefficients for TQM is ($\beta = 0.451$ and the P-value is 0.01). This shows that TQM does predict the overall performance of the firm. Similarly, the direct effects of generic strategies on organization performance is ($\beta = 0.388$ and the p value is 0.087). This shows that both TQM and generic strategies does predict the and overall performance of the firm of the firm at 90% confidence level. However, the direct effects of Generic strategies on TQM have reduced from (0.951 to 0.388). This indicates that TQM partially mediates the relationship between TQM and overall performance. Substituting the figures into the OLS Model $Y = \beta_0 + \beta_3X + \beta_4M + \varepsilon$ the following equation is obtained.

$$Y = \beta_0 + 0.388X + 0.451M + \varepsilon \quad \text{Equation 3}$$

Y= organization performance

β_0 = constant

X = Generic strategies (cost leadership strategy, differentiation and focus strategy)

M= total quality management (mediator)

ε = error term.

The significance of indirect effects was further tested using bootstrapping procedures. The indirect effects were computed for each 5000 bootstrapped samples.

The findings showed that the indirect (mediation) effect of TQM on the relationship between generic strategies and overall performance is significantly different from zero at the 0.10 confident level ($p=.10$ two-tailed) based on a bootstrap approximation obtained by constructing two-sided percentile- based confidence intervals.

Table 4.51: Generic strategies on TQM and overall performance

Relationship	Standardized Regression	P
	Weights	
TQM < Generic strategies	0.861	0.010
Overall Performance < Generic strategies	0.388	0.087
Overall performance < TQM	0.451	0.051

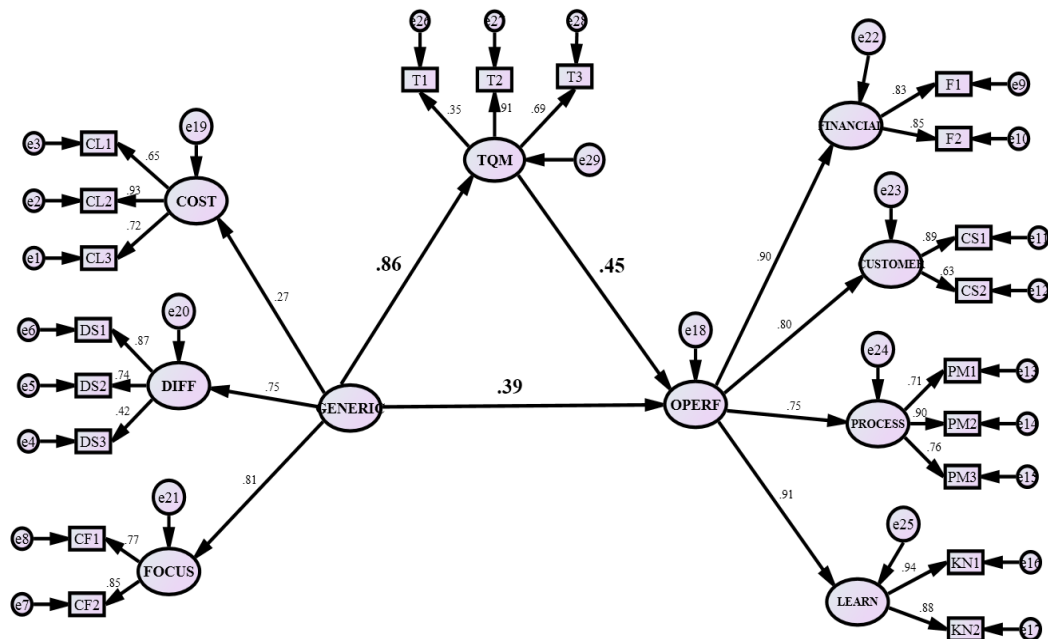


Figure 4.24: Generic strategies, TQM and overall performance

The study findings show that a combination of three generic strategies had a positive effect on financial, customer satisfaction, internal process performance and organization learning and growth performance. Porter (1980) explains that if sometimes a firm can successfully pursue more than one approach as its primary target, it is rarely possible. This is because effective implementation of any of these strategies usually requires total commitment and supporting arrangements that are diluted if there is more than one primary target (Furrer, Sudharshan, Thomas & Alexandre, 2008). However the study results are inconsistent to this and are in agreement with Salavou (2013), Huang(2011) and Shinkle, Kriauciunas and Hundley (2013) findings who argued that conditions which favour cost leadership strategies were independent conditions that might favour differentiation strategies and also consistent with scholars (Parnell 2013; Manev-Azorin & Claver-Cortés, 2009) who argue that combining elements of both generic competitive strategies, simultaneously lead to better performance. These findings are the same as findings from (Waweru, 2011) whose findings show that manufacturing firms in Kenya effectively implement all the generic strategies concurrently.

TQM mediates the relationship between generic strategies and organization performance consistent to this finding is the findings of Yuns *et al.* (2013). TQM is a culture that is embedded in the organization. This culture instils a culture of innovation, effective communication, and knowledge sharing and employee involvement and thus had a potential effect on generic strategy and enhances the performance of manufacturing firms. Also conceptualizing TQM as a strategic resource that is unique to every organization and is difficult to imitate TQM then shapes the strategy formulation process in an organization and thus leading to a competitive advantage. TQM only partially mediated the relationships a significant portion of variance in performance is directly explained by strategies without being mediated by TQM. This finding is important in the sense that when pursuing TQM under the context of generic strategies, organizations also need to furnish certain resources that are not accommodated by TQM such as economies of scales, market communication, market research, market development, and adopted of technology.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter presents the summary conclusions and recommendations of the study on the mediating effect of TQM on the relationship between generic strategies and Kenya manufacturing firm's performance.

5.2 Summary of Findings

This section presents the summary of the study on the mediating effects of TQM on relationship between generic strategies and organization performance based on specific objectives.

5.2.1 TQM practice on the relationship between Cost Leadership Strategy and Organization Performance

The study concluded that most of the manufacturing firms in Kenya have implemented, cost leadership strategy either exclusively or as a dual strategy with differentiation strategy. The study also confirmed that the ISO certified manufacturing firms had implemented TQM practices. The study established that TQM practice such as continuous process improvement enabled manufacturing firm to improve their Operation efficiencies and reduce wastage, defects rates and other related costs. It also discovered that TQM practice supplier partnerships had enable their organization to reduce order-processing cycles and access raw materials and supplies at affordable prices. This enabled the organizations to reduce costs.

The study further discovered that there was a positive significant relationship between Cost leadership strategy and financial performance; customer satisfaction; internal process improvement; organization learning and growth and the overall performance of the organization. It also revealed there was strong significant relationship between cost leadership strategy and total quality management. On the indirect (mediation) effects of TQM on the relationship between cost leadership and

organization performance. The study determined that TQM partially mediates the relationship between cost leadership strategy and financial performance; customer satisfaction; internal process performance; organization learning and growth and overall organization performance.

5.2.2 To determine the Mediating effect of TQM practice on the Relationship between Differentiation Strategy and Organization Performance.

The study findings revealed that there was a positive significant relationship between differentiation strategy and financial performance; customer satisfaction; internal process performance; organization learning and growth and the overall performance of the organization. It also discovered that there was a positive significant relationship between differentiation strategy and TQM. On the mediation effects of TQM on relationship between differentiation strategy and organization performance, the study findings varied based on the performance measure used. On the indirect effects of TQM on the relationship between differentiation strategy and financial performance and overall performance the study established that TQM partially mediated these relationships. However, it also established that TQM completely mediated the relationship between differentiation strategy and the following performance measures customer satisfaction, internal process performance and organization learning and growth.

5.2.3 To examine the Mediating effect of TQM practice on the Relationship between Focus Strategy and Organization Performance

The study determined that there exists strong significant relationship between focus strategy and financial; customer satisfaction; internal process performance; organization learning and growth and the overall performance of the organization. The study also discovered that there exists strong significant relationship between focus strategy and TQM. Regarding the indirect effects of TQM on the relationship between Focus strategy and organization performance, the findings varied for each performance measures. The study revealed that TQM completely mediates the relationship between focus strategy and the following performance measures; financial performance; Customer satisfaction and overall performance of the

organization. It also established that TQM partially mediates the relationship between focus strategy and the following performance measures internal process performance and organization learning and growth.

5.2.4 To establish the Mediating Effect of TQM practice on the Relationship between Generic Strategies and Organization Performance.

The study established that most manufacturing firms had adopted all the three generic strategies combined. The manufacturing firms in Kenya preferred differentiation strategy as method of obtaining competitive advantage and cost leadership strategy enabled the manufacturing firms to expand their market share while focus strategy enabled firms to reach market segments that are not well served. The study discovered that there exists strong positive significant relationship between TQM and generic strategies. The study findings further indicated that there was a positive significant relationship between generic strategies and financial performance; customer satisfaction; internal process performance; organization learning and growth and the overall performance of the organization. The study concluded that TQM partially mediate the relationship between generic strategies and financial performance; customer's satisfaction; internal process performance; organization learning and growth and overall performance of manufacturing firms in Kenya.

5.3 Conclusions

5.3.1 TQM, Cost Leadership Strategy and Organization Performance

The study concludes that both TQM and Cost leadership have a direct effect on the organization performance using all four dimensions of the balance scorecard. However, TQM partially mediates the relationship between cost leadership strategies and organization performance. This shows that significant portion of variance in performance is directly explained by strategies without being mediated by TQM. This finding is important in the sense that when pursuing TQM under the context of generic strategies, organizations also need to furnish certain resources that are not

accommodated by TQM such as economies of scales, market communication, market research, market development, and adopted of technology.

5.3.2 TQM, differentiation Strategy and Organization Performance

The study concludes both TQM and differentiation strategies significantly and positively relate to the four organization performance measures (Financial, customer satisfaction, organization learning and growth, and internal process performance). Depending on the performance measure the indirect effects of TQM vary between partial mediation and complete mediation. TQM partially mediated the relationships between differentiation strategy and financial performance and overall performance. It has also been established that TQM completely mediated the relationship between differentiation strategy and the following performance measures customer satisfaction, internal process performance and organization learning and growth.

5.3.3 TQM, Focus Strategy and Organization Performance

The concludes that both TQM and focus strategy have a positive effect on firms financial; customer satisfaction; internal process performance; organization learning and growth and the overall performance of the organization. The study also discovered that there exists strong significant relationship between focus strategy and TQM. Regarding the indirect effects of TQM on the relationship between Focus strategy and organization performance, the findings varied for each performance measures. TQM completely mediates the relationship between focus strategy and the following performance measures; financial performance; Customer satisfaction and overall performance of the organization. It also established that TQM partially mediates the relationship between focus strategy and the following performance measures internal process performance and organization learning and growth.

5.3.4 TQM, generic Strategy and Organization Performance

TQM positively and significantly influenced organization performance using the four dimensions of performance as indicated in the balance score card (financial perspective, customer perspective, internal process perspective and organization

learning and growth perspective). Similarly, all the three generic strategies combined had a positive and significant effect on the balance scorecard measures. The study also concludes that TQM partially mediate the relationship between generic strategy and organization performance. Indicating that TQM can be employed as an effective means of implementing generic strategies within the organization and achieve satisfactory organization performance in all the four dimensions recommended in the balance scorecard however it should be embedded in an organization together with generic strategies not captures in TQM such as economies of scale for a firm to be effective.

5.4 Recommendations

The impact of manufacturing industry on economic development is tremendous, a strong and thriving manufacturing sector usually precipitate industrialisation. The manufacturing sector is widely considered to be the ideal industry to drive African development; this is due to the labour-intensive export-focused nature of the industry. Kenya manufacturing industry like many African countries is still in its infancy and is curtailed by a number of shortcomings among this is competition. The sector faces high competition; the survival rate of export manufacturing firms is low. Particularly the first few years of entering export markets, 65% of firms exit the export market by the second year of operation (World Bank, 2014). The industry plays a relatively small role on economic development. However regardless of this contribution vision 2030 stipulates that the sector should account for 20% percent of the GDP achieving this goal requires addressing underlying constrains that hinder faster growth. These include stiff competition from imports. To improve the competitiveness of manufacturing firms in Kenya based on the findings firms need to implementation TQM coupled with generic strategies.

The importance of TQM on organizations competitiveness is enormous however only 39 manufacturing firms are ISO certified it is imperative that the government through the ministry of industrialization and using organizations such as Kenya Bureau of standards should create awareness of the value of TQM in manufacturing firm. The study also recommends that organizations such as Kenya Bureau of

standards (KEBS) that manage quality inspection programs for manufacturing firms should restructure their programs to include quality management practices. Manufacturing firms should be encouraged to integrate generic strategies with TQM practice, as TQM will enable them to build processes that are responsive to the customer's need, enable them transform existing resources into new capabilities and integrate their processes with those of their customers and suppliers. This will make the firms more competitive hence enhancing economic development.

The management of manufacturing firms in Kenya must know the importance of quality management, they must create a culture that is conducive and supportive of quality implementation. They must align quality implementation with their strategic goals and competitive environment. TQM practice should be integrated within the organization systems, processes and core values which inform the firm's strategic plan. TQM designers and practitioners should understand the link between TQM and the various strategies and core processes could be critical for designing TQM programmes that are well aligned to the culture of the organization as well as its strategic management processes. It is prudent for managers to understand the role that different TQM practices play in affecting the various generic strategies and their selection process. This is important if the management deploying TQM aims at gaining competitive advantage from this powerful strategic resource tool.

5.5 Suggestions for Further Studies

For researchers integrating the roles that TQM plays in organization in a holistic form that takes into consideration all the possible relationships between variables is enriching to this research stream. Future research may opt to confirm the findings of this study by undertaking the research through a longitudinal research approach to detect the dynamic changes of the relationships between variables through the processes.

The focus of this study was only in one industry, future studies can leverage the approach used in the present study in order to examine the impact of TQM on other industries and examine the impact on various dimensions of performance using. The

study recommends that a replica of the same study should be carried out in the service industry.

While this study provided insight into generic TQM and organization performance. Research on TQM in relation to functional studies remains unexamined, future research should focus on TQM effect on performance of functional strategies, marketing strategies, innovation, product diversification and management areas such as leadership, human resource management.

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APPENDICES

Appendix I: Questionnaire

The aim of this questionnaire is to collect data for purely academic purpose. The study seeks to examine the Mediating effect of TQM on the relationship between Generic strategies and organizations performance in the Kenyan manufacturing firms. Do not put any name or identification on this questionnaire. Answer all questions as indicated by either filling in the blanks or ticking the option that applies

Please indicate

I DEMOGRAPHIC INFORMATION

General information

- a) Gender
- i) Male
 - ii) Female
- b) How long have you worked for this organization?
- i) Less than 2 yrs.
 - ii) 2-4 yrs.
 - iii) 4-6 yrs.
 - iv) Above 6 yrs.
- c) What is your current position? _____
- d) Kindly indicate your highest Academic qualification
- i) PhD level
 - ii) Master's degree
 - iii) Bachelor degree
 - iv) Diploma holder
 - v) KCSE level
 - vi) Other please specify _____

II THE EFFECT OF GENERIC STRATEGIES ON ORGANIZATION PERFORMANCE

a) Indicate the number of your organization major competitors

- i) 0-5
- ii) 5-20
- iii) 20-40
- iv) 40-60
- v) Above 60

a) Cost leadership and organization performance

Using agree-disagree scale indicate how cost leadership strategy has impacted the performance of your organization by answering each question. **SD= Strongly Disagree, D=Disagree, N=Neutral, A=Agree and SA= Strongly Agree.**

Cost leadership strategy	SD	D	N	A	SA
We charge prices lower than their competitors					
We have reduced labour input through automation					
We produced in large quantities					
we emphasized on cost cutting measures					
We continuously train our employees to improve efficiency					
Most of our products are standardized					
We outsource functions to control costs.					
Integration of supply chain with suppliers					
We maintain good Supplier relationships					
We buy raw materials at fairly good prices					

b) Differentiation strategy and organization performance

Using agree-disagree scale indicate how differentiation strategy has impacted the performance of your organization by answering each question. **SD= Strongly Disagree, D=Disagree, N=Neutral, A=Agree and SA= Strongly Agree.**

Differentiation strategy	SD	D	N	A	SA
We continuously develop unique products					
Trained our employees on how to handle customers					
We invest in research and development					
Our product and service have a strong brand identity					
We have increased our marketing communication to differentiate ourselves					
we have improved the quality of our products to distinguish ourselves					
Improved quality of customer services					
we meet our customer needs more than our competitor					

c)

d) Focus strategy and organization performance

Using agree-disagree scale indicate how Focus strategy has impacted the performance of your organization by answering each question. **SD= Strongly Disagree, D=Disagree, N=Neutral, A=Agree and SA= Strongly Agree.**

Focus strategy	SD	D	N	A	SA
We offer customized customer services					
We produce speciality products					
We meet our customer needs more than our competitors					
We offer tailored market communication messages to specific market segments					
Our customers are involved in developing new products					
We quickly respond to changes in demand of our customers					
Our prices are set based the products quality					

III THE EFFECT OF TQM ON ORGANIZATION PERFORMANCE

Using agree-disagree scale indicate how TQM programme has impacted performance by answering each question. **SD= Strongly Disagree, D=Disagree, N=Neutral, A=Agree and SA= Strongly Agree.**

Total quality management	SD	D	N	A	SA
Our top managers are commitment to TQM implementation					
We have implemented continuous improvement philosophy					
We are committed to our Customer					
We partner with our Suppliers					
We all work together as a Team					
We empower our Employee through training					
We have quality Leaders who are our mentors					
We have reduced wastage in our organization					
We bench mark with the best in the industry					

IV FIRM PERFORMANCE

Financial performance

To what extent do you agree with the following statements related to the financial performance of your organization; using the scale **SD= Strongly Disagree, D=Disagree, N=Neutral, A=Agree and SA= Strongly Agree**

	SD	D	N	A	SA
Our Sales growth rate has improved					
Our market share has increased					
Profit growth rate has increase					
Our organization has introduced new revenue sources by entering into new markets					
Our organization has introduced new revenue sources by entering introducing new products					
Our organization has improved the existing customers profitability					
We have reduced amount wastage in the organization					
We have Lowed the direct cost of products and service					
We have reduced indirect cost common resources are shared with other business unit					
We have Improved asset utilization					
We have reduced the working capital needed to support a given level of business					
We have reduced the fixed capital needed to support a given level of business					
We have been more careful in asset acquisition					
We have disposed parts of current and fixed asset base not in use					
Our Sales growth rate has improved					
Our market share has increased					

Customer satisfaction

To what extend do you agree with the following statements related to the customer satisfaction index in your organization; using the scale **SD= Strongly Disagree, D=Disagree, N=Neutral, A=Agree and SA= Strongly Agree**

	SD	D	N	A	SA
Our customer are loyal to us					
We have managed to retain our customers over the years					
Our customers have always recommend our products to others					
We have continuously acquired new customers					
The number of customer complaints have reduced over the years					
Our customers have provided us with quality knowledge which has enabled us to develop and/improve our products and business processes.					

Internal process performance

To what extend do you agree with the following statements related to internal process performance in your organization; using the scale **SD= Strongly Disagree, D=Disagree, N=Neutral, A=Agree and SA= Strongly Agree**

	SD	D	N	A	SA
We have reduced our operation costs					
We have improved the quality of our products					
We have reduced the cycle time of operating process					
We have excellence supplier relationships					
We have speed and efficiency in supply process					
We have Speed and efficiency in distribution process					
We have Built a strong customer management process					
We have integrated seamlessly with our					

customer's value chains to deliver solutions					
We have a Leading edge innovation process that have enabled us create new products					

Organization Learning and growth

To what extend do you agree with the following statements related to organization Learning and growth performance in your organization; using the scale **SD= Strongly Disagree, D=Disagree, N=Neutral, A=Agree and SA= Strongly Agree**

	SD	D	N	A	SA
We capture knowledge from our customer					
We understand our customer's needs					
We continuously train our employees to improve their skills					
We ensure that everyone knows the customer					
We make our company knowledge available to our customers					
We capture knowledge from our suppliers					
We emphasize on team work					
We ensure that ideas flow from customer service to research and development					
We reuse what other parts of the company have already learnt					
We capture knowledge from our customer					
We understand our customer's needs					
We continuously train our employees to improve their skills					

Thank You

Appendix II: List of ISO certified manufacturing companies in Kenya

- 1) ASP Company Ltd
- 2) Bidco Oil Refineries lianto Division
- 3) Bidco Oil Refineries Ltd
- 4) Botanical Extracts (EPZ) Ltd
- 5) Capwell Industries Ltd
- 6) Changoi and Lelsa Tea Estate (Williamson Tea Kenya Ltd)
- 7) Central Glass Industries Ltd
- 8) Coca-Cola Juices Kenya Ltd
- 9) Continental Products Ltd
- 10) Del Monte Kenya Limited
- 11) Dalcom Kenya Limited
- 12) East African Breweries Ltd
- 13) East African Portland Cement Company Limited
- 14) Egerton Uni- Guildford Dairy Institute
- 15) Equator Bottlers Ltd
- 16) East African Maltings Ltd
- 17) Equatorial Nut Processors Ltd
- 18) General Motors East Africa Ltd
- 19) GlaxoSmithKline
- 20) Kaimosi Tea Estates Ltd.
- 21) Kapchorua Tea Company.
- 22) KEMRI Production Department
- 23) Kenya Tea Packers Ltd (KETEPA)
- 24) Kenya Seed Company Ltd
- 25) Kipkebe Tea Factory
- 26) Lake Basin Development Company
- 27) Lemoc Ltd
- 28) Mt. Kenya Bottlers Ltd.
- 29) Muhoroni Sugar Comapny
- 30) Nairobi Bottlers Ltd

- 31) Nairobi Java House Ltd
- 32) New Kenya Cooperative Creameries Ltd
- 33) Nzoia Sugar Co.
- 34) Sous chef limited
- 35) South Nyanza Sugar Company (SONY SUGAR)
- 36) Ten Senses Africa Limited
- 37) Tinderet Tea Estate (1989) Ltd,
- 38) Tropikal Brands (Africa) Ltd
- 39) Vermont Flowers (EPZ) Ltd

Appendix III: Correlations

Correlations

		CL1	CL2	CL3	DS1	DS2	DS3	CF1	CF2
CL1	Pearson Correlation	1	.613**	.493**	.619**	.487**	.636**	.229*	.240*
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.020	.015
	N	102	102	102	102	102	102	102	102
CL2	Pearson Correlation	.613**	1	.690**	.633**	.648**	.655**	.451**	.374**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000
	N	102	102	102	102	102	102	102	102
CL3	Pearson Correlation	.493**	.690**	1	.535**	.518**	.600**	.335**	.499**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.001	.000
	N	102	102	102	102	102	102	102	102
DS1	Pearson Correlation	.619**	.633**	.535**	1	.601**	.643**	.347**	.298**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.002
	N	102	102	102	102	102	102	102	102
DS2	Pearson Correlation	.487**	.648**	.518**	.601**	1	.662**	.233*	.297**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.018	.002
	N	102	102	102	102	102	102	102	102
DS3	Pearson Correlation	.636**	.655**	.600**	.643**	.662**	1	.273**	.312**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.005	.001
	N	102	102	102	102	102	102	102	102
CF1	Pearson Correlation	.229*	.451**	.335**	.347**	.233*	.273**	1	.650**
	Sig. (2-tailed)	.020	.000	.001	.000	.018	.005		.000
	N	102	102	102	102	102	102	102	102
CF2	Pearson Correlation	.240*	.374**	.499**	.298**	.297**	.312**	.650**	1
	Sig. (2-tailed)	.015	.000	.000	.002	.002	.001	.000	
	N	102	102	102	102	102	102	102	102

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

* . Correlation is significant at the 0.05 level (2-tailed).

Appendix IV: Tests of Normality^a

	Kolmogorov-Smirnov^b			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
F2	.309	102	.052	.802	102	.063
F2	.193	102	.200*	.967	102	.878
CS1	.259	102	.171	.851	102	.125
CS2	.259	102	.169	.909	102	.389
PM1	.288	102	.083	.870	102	.184
PM2	.284	102	.091	.825	102	.072
PM3	.264	102	.149	.887	102	.262
KN1	.184	102	.118	.999	102	.927
KN2	.214	102	.200*	.852	102	.127
T1	.211	102	.200*	.896	102	.198
T2	.223	102	.171	.867	102	.091
T3	.208	102	.200*	.955	102	.740
CL1	.293	102	.112	.860	102	.262
CL2	.228	102	.200*	.887	102	.221
CL3	.295	102	.069	.909	102	.345
DS1	.184	102	.200*	.880	102	.226
DS2	.304	102	.149	.817	102	.111
DS3	.291	102	.122	.891	102	.322
CF1	.259	102	.170	.817	102	.060
CF2	.313	102	.122	.849	102	.192

Appendix V: Mahalanobis distance

Observations farthest from the centroid (Mahalanobis distance) (Group number 1)

Observation number	Mahalanobis d-squared	p1	p2
4	39.092	.006	.486
19	36.100	.015	.452
50	34.986	.020	.339
7	34.825	.021	.169
42	34.612	.022	.078
100	34.476	.023	.031
48	34.216	.025	.014
43	33.941	.027	.006
49	32.515	.038	.016
24	32.334	.040	.008
71	32.292	.040	.003
101	30.202	.067	.039
6	29.952	.071	.028
51	29.349	.081	.036
102	29.179	.084	.024
63	28.930	.089	.019
11	28.921	.089	.009
27	28.720	.093	.006
8	28.310	.102	.007
99	27.990	.110	.007
66	27.311	.127	.016
38	27.031	.134	.016
41	26.712	.144	.017
16	26.306	.156	.023
98	25.518	.182	.069
23	25.128	.197	.090

17	25.072	.199	.065
72	25.001	.201	.047
13	24.420	.225	.094
15	24.283	.230	.081
75	24.147	.236	.070
97	23.901	.247	.076
47	22.577	.310	.420
65	21.686	.358	.730
52	21.591	.363	.697
64	21.451	.371	.682
81	21.330	.378	.660
80	21.175	.387	.652
76	20.159	.448	.925
2	19.933	.462	.936
37	19.886	.465	.916
12	19.654	.480	.930
9	19.488	.490	.932
91	19.270	.504	.942
5	19.101	.515	.945
18	19.018	.521	.934
55	18.799	.535	.945
77	18.786	.536	.922
68	18.749	.538	.898
10	18.665	.544	.882
31	18.556	.551	.871
74	18.530	.553	.833
69	18.352	.564	.843
40	18.192	.575	.848
83	18.027	.586	.853
62	17.815	.600	.873

54	17.408	.626	.934
61	17.008	.652	.969
46	16.898	.660	.965
59	16.763	.668	.964
45	16.590	.679	.967
44	16.386	.692	.973
58	16.271	.700	.970
85	15.977	.718	.982
34	15.963	.719	.972
22	15.914	.722	.962
29	15.364	.755	.991
78	15.342	.757	.985
67	15.151	.768	.987
53	15.137	.768	.979
87	14.903	.782	.984
73	14.795	.788	.981
14	14.688	.794	.978
30	14.635	.797	.969
96	14.602	.799	.954
3	14.576	.800	.931
90	14.380	.811	.937
35	14.234	.818	.934
57	14.219	.819	.901
32	13.867	.837	.939
21	13.817	.840	.914
1	13.593	.851	.924
36	13.527	.854	.897
95	13.382	.860	.886
82	13.333	.863	.843
33	13.243	.867	.805

70	13.017	.877	.813
86	12.557	.896	.890
79	12.413	.901	.870
89	12.246	.907	.851
93	12.117	.912	.814
25	11.792	.923	.839
26	11.290	.938	.902
28	11.177	.942	.857
56	11.014	.946	.812
88	10.801	.951	.770
84	10.666	.954	.679
92	10.304	.962	.660
94	10.187	.965	.512
39	8.554	.988	.864

Appendix VI: Factor Analysis

GENERIC STRATEGIES

Cost leadership strategy

Component	Total Variance Explained					
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.308	43.079	43.079	4.308	43.079	43.079
2	1.848	18.478	61.558	1.848	18.478	61.558
3	1.318	13.176	74.734	1.318	13.176	74.734
4	.677	6.769	81.503			
5	.600	6.002	87.505			
6	.482	4.820	92.325			
7	.311	3.114	95.440			
8	.236	2.362	97.801			
9	.150	1.497	99.298			
10	.070	.702	100.000			

Extraction Method: Principal Component Analysis.

Differentiation Strategy

Component	Total Variance Explained					
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.979	44.210	44.210	3.979	44.210	44.210
2	1.480	16.446	60.656	1.480	16.446	60.656
3	1.317	14.633	75.290	1.317	14.633	75.290
4	.672	7.463	82.752			
5	.600	6.669	89.421			
6	.409	4.547	93.968			
7	.285	3.172	97.140			
8	.181	2.015	99.156			
9	.076	.844	100.000			

Extraction Method: Principal Component Analysis.

Focus Strategy

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.458	49.405	49.405	3.458	49.405	49.405
2	1.670	23.860	73.265	1.670	23.860	73.265
3	.768	10.971	84.236			
4	.462	6.599	90.835			
5	.320	4.572	95.407			
6	.209	2.990	98.397			
7	.112	1.603	100.000			

Extraction Method: Principal Component Analysis.

Total Quality Management

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.006	44.511	44.511	4.006	44.511	44.511
2	1.538	17.084	61.595	1.538	17.084	61.595
3	1.215	13.499	75.094	1.215	13.499	75.094
4	.777	8.630	83.724			
5	.551	6.118	89.842			
6	.346	3.847	93.689			
7	.230	2.560	96.249			
8	.197	2.193	98.441			
9	.140	1.559	100.000			

Extraction Method: Principal Component Analysis.

ORGANIZATION PERFORMANCE

Financial Performance

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.321	59.433	59.433	8.321	59.433	59.433
2	1.804	12.889	72.322	1.804	12.889	72.322
3	.783	5.593	77.915			
4	.737	5.262	83.177			
5	.658	4.699	87.876			
6	.452	3.227	91.103			
7	.342	2.443	93.546			
8	.244	1.740	95.286			
9	.216	1.539	96.826			
10	.156	1.115	97.940			
11	.134	.956	98.896			
12	.067	.482	99.378			
13	.051	.362	99.740			
14	.036	.260	100.000			

Extraction Method: Principal Component Analysis.

Learning and Growth

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.870	65.218	65.218	5.870	65.218	65.218
2	1.129	12.540	77.758	1.129	12.540	77.758
3	.664	7.374	85.132			
4	.450	5.001	90.133			
5	.238	2.639	92.772			
6	.226	2.516	95.288			
7	.171	1.895	97.183			
8	.165	1.833	99.016			
9	.089	.984	100.000			

Extraction Method: Principal Component Analysis.

Customer satisfaction

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.958	49.293	49.293	2.958	49.293	49.293
2	1.468	24.465	73.758	1.468	24.465	73.758
3	.718	11.967	85.725			
4	.371	6.182	91.907			
5	.324	5.403	97.310			
6	.161	2.690	100.000			

Extraction Method: Principal Component Analysis.

Process Management

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.124	45.819	45.819	4.124	45.819	45.819
2	1.623	18.033	63.853	1.623	18.033	63.853
3	1.282	14.240	78.093	1.282	14.240	78.093
4	.587	6.524	84.617			
5	.502	5.577	90.194			
6	.315	3.501	93.695			
7	.264	2.936	96.631			
8	.216	2.398	99.029			
9	.087	.971	100.000			

Extraction Method: Principal Component Analysis.

Appendix VII: Communalities of factors

Communalities of factors

Indicator	Initial	Extraction
CL1	1.000	.631
CL2	1.000	.765
CL3	1.000	.742
DS1	1.000	.711
DS2	1.000	.675
DS3	1.000	.756
CF1	1.000	.749
CF2	1.000	.767
T1	1.000	.596
T2	1.000	.812
T3	1.000	.691
F1	1.000	.717
F2	1.000	.700
CS1	1.000	.704
CS2	1.000	.711
PM1	1.000	.684
PM2	1.000	.689
PM3	1.000	.615
KN1	1.000	.777
KN2	1.000	.827

Extraction Method: Principal Component Analysis.