DETERMINANTS OF COMPETITIVE ADVANTAGE IN MEDIUM AND LARGE GARMENT COMPANIES IN KENYA

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DOCTOR OF PHILOSOPHY

(Business Administration)

JOMO KENYATTA UNIVERSITY

OF

AGRICULTURE AND TECHNOLOGY

2023

Determinants of Competitive Advantage in Medium and Large Garment Companies in Kenya

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A thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Business Administration (Strategic Management) of the Jomo Kenyatta University of Agriculture and Technology

2023

DECLARATION

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

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To my wife, Belka son Gabriel, and my parents Christine and Patrick for their relentless support and encouragement in the course of my PhD journey.

ACKNOWLEDGEMENT

I would like to thank my supervisors Dr. Wallace Atambo, Prof. Mike Iravo and Dr. Rukia Atikiya for their guidance in shaping my research work. Without their constructive critique and views, this thesis would not have materialized. I would also like to thank my family and friends for their unwavering support and encouragement.

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ABBREVIATIONS AND ACRONYMS

RBT	Resource Based Theory
EPZ	Export Processing Zones
KM	Knowledge Management
MN	Managerial Networking
INV	Innovation
CR	Customer Responsiveness
CA	Competitive Advantage
MITC	Ministry of Industrialization, Trade and Cooperatives
I.P	Intellectual property
CDL	Customer Dominant Logic
CRM	Customer Relationship Management
NPD	New Product Development
EDI	Employee-Driven Innovation
SERVQUAL	Service Quality Model
ECT	Environmental Contingency Theory
TMT	Top Management Team
KM	Knowledge Management
KMC	Knowledge Management Capability
KMS	Knowledge Management Systems

DEFINITION OF TERMS

Competitive advantage:	The sum of definite differences among firms which gives some superiority over the others (Amini, et al., 2019)
Competitive intensity:	A situation in which the degree of competition depends on competitor behavior, their resources and ability to differentiate offerings (Tsai & Hsu, 2019)
Emerging economies	Low-income, rapid-growth countries using economic liberalization as their primary engine of growth" (Zhou, Li, Sheng & Shao, 2021)
Managerial Networking:	The process of developing and exploiting top managers' social ties, contacts, and connections with external entities (e.g. forging ties with government agencies and financial institutions) (Bekerom, Torenvlied Akkerman, 2016)
Organizational Flexibility:	Firm's ability to accommodate changes in customer needs and increasing variety of customer expectations while keeping costs, delays, organizational disruptions and performance losses at or near zero (Prommarat, Pratoom & Muenthaisong (2022)
Organizational Agility:	Organization's ability to respond swiftly/quickly to customer demands and to detect and seize market opportunities with speed and surprise (Roberts & Grover; 2016; Teece, Peteraf and Leih, 2016)
Knowledge Management:	Process of creating, sharing, using and managing knowledge and information in organization (Girard, 2022)

Knowledge Audit:	Process through which organizations can understand what knowledge is needed, available and used for organization's current activities (Ganasan, 2018)
Corporate venturing:	A situation in which a firm invests in new or existing businesses in order to utilize innovations that were initially abandoned or that did not seem promising initially (Bilton & Cummings, 2017)
Modular product development:	Products, assemblies and components that fulfill various functions through the combination of distinct building blocks (modules). Commonly found in firms with a heavy focus on production flexibility and mass customization (Shaik, Rao & Rao, 2022).
Social capital	Connections among individuals that characterize social networks where norms of reciprocity and trustworthiness arise (Hernández, Camarero-Izquierdo & Gutiérrez, 2017)

ABSTRACT

Over the past three decades, Kenya's apparel sector has experienced decreasing competitiveness mainly due to the shift from government protectionism to free market trade. While government protectionism has been the main source of competitiveness for Kenya's apparel sector, it cannot be a viable factor for growth any more. As the industry evolves in many other ways, its competitive advantage factors should be changed accordingly. This study is a preliminary attempt to illustrate how the garment industry in Kenya can obtain competitive advantage in the global economy and to suggest future direction. Specifically, the study aimed at establishing the influence of knowledge management, managerial networking, innovation and customer responsiveness on competitive advantage in medium and large garment companies in Kenya. The study, further, sought to establish the moderating influence of competitive intensity on the relationship between independent and dependent variables in this study. A cross-sectional survey design was adopted, using both qualitative and quantitative approaches. From a target population of 170 firms, 83 firms were drawn to form the sample for this study. A multi sampling technique was applied to attain the sample distribution pattern, and in choosing the actual firms that were to take part in the study; in the first stage, the firms were stratified in terms of their aggregate number per county. The second stage entailed the computation of weighted proportions to determine the number of firms that would be drawn from each county. In the third stage, simple random sampling (SRS) technique was applied to extract the actual firms that were to take part from each county. Questionnaires were used to collect primary data. To test reliability of the data collection instrument, the questionnaire was piloted among 20 firms. Experts in the areas under study were further engaged to test construct and content validity. The response rate for this study was 86.7% (72 firms). Using the data collected, normality, multicollinearity, heteroscedasticity and sampling adequacy tests were conducted all indicating appropriateness of data. Descriptive statistics aided in generating numerical values for qualitative data. Using linear regression analysis and analysis of variance, Null hypotheses (Ho1- Ho5) were tested and rejected with a strong statistical significance that the independent variables explored in this study influenced the dependent variable (competitive advantage). Overall, the moderation results indicated a statistically significant moderating influence of competitive intensity on the relationship between the dependent and independent variables. The study recommends the enhancement of capabilities in relation to knowledge management, innovation and customer responsiveness, but a cautious approach in joining business networks. The study proposes policy formulation that supports measures that boost and reinforces the competitiveness of Kenya's garment industry. Consequently, this study provides vital information and knowledge from where research agenda and policy discussions can be referenced. The findings of this research will help enhance the competitiveness of Kenya's garment industry, especially in the current era of open markets and trade liberalization.

CHAPTER ONE

INTRODUCTION

1.1 Background Information

Today in this consumer-based society, clothing is an indispensable part of human lifestyle where garment product development has become a vital sector that contributes positively to the social and outward personality of the people (Thompson, Okon & Nwonye, 2022). However, due to constant changes in consumer tastes and myriads of new firms joining the sector every year, garment producers are faced with diverse challenges such as rapid fashion cycles, knowledgeable and highly unpredictable consumers and rigorous competition from rival firms (Thompson, 2021). Owing to these competitive dynamics in markets and industries, forward-looking firms and researchers alike are seeking new insights into the nature of competitive advantage and the most reliable means for acquiring and sustaining it.

As a result, one of the research areas which has gained significant interest in recent years are studies on determinants of competitive advantage; Findings by Barney, Ketchen and Wright (2018) for instance, proposes the accumulation of resources which meets four conditions - value, rareness, inimitability and non-substitutability. Campbell, Coff and Kryscynski (2019) argues for the acquisition of firm-specific human capital as a path towards sustainable competitive advantage. Kumar et al. (2018), considers market orientation the most critical factor in enhancing a firm's competitiveness; market orientation in this case is concerned with superior understanding of customer needs, competitor actions and markets. Prahalad and Hamel (2018), Hill and Gareth (2019) and Haibin (2019) have specifically examined those determinants that are associated with core competencies and internal capabilities of organizations. Their models have highlighted knowledge management, managerial networking, innovation and customer responsiveness as the key determinants of competitive advantage in organizations.

1.1.1 Global Trends in the Garments' Industry

The garment and textile industries were the archetypal drivers of early industrialization in both developed and less developed countries (Natsuda, Goto,Thoburn, 2016). Currently, the garment sector still remains the main springboard for national development, and often is the typical starter industry for countries engaged in export-oriented industrialization due to its low fixed costs and its emphasis on labor-intensive manufacturing (Gereffi & Frederick, 2017). Globally the garment and textile industries employ 75 million people worldwide and has an estimated worth of $4.4 trillion (Solidarity Centre, 2016).

Although the global garment industry has been expanding at a rapid rate since early 1970s and providing employment to tens of millions of workers, the industry has undergone regulative, economic and competitive dynamics. For instance, the Multi-Fiber Arrangement (MFA), which established quotas and preferential tariffs on apparel and textile items imported into the United States, Canada, and other European nations was phased out by the World Trade Organization (WTO) between 1995 and 2005 (Gereffi & Frederick, 2017). Consequently, many poor and small developing economies that relied on apparel exports such as Sri Lanka, Mexico, Turkey and Kenya were pushed out of the global trading system by much larger, low-cost rivals, such as China, India, and Bangladesh (MacCarthy & Jayarathne, 2016). As with other industries around the world, the global economic recession of 2008 had implications on the garment sector as well; it led to factory shutdowns, sharp increases in unemployment, and social unrest as displaced workers sought new jobs (Gereffi & Frederick, 2017).

Equally of noteworthy are the effects of consumer and competitive pressures; information and trends, for instance, are moving around the globe at tremendous speeds, presenting consumers' with more options. Changes in lifestyle due to sociocultural factors and need for uniqueness is forcing the industry players to renew merchandise constantly in order to deal with the growing competition in the market (Bhardwaj & Fairhurst, 2017). Additionally, complex global supply networks have emerged to flood

clothing in world markets. The nature of these global networks poses significant challenges for rival firms such as, the need for quick and accurate response to customer demands and the need to adopt innovative operational competencies (MacCarthy & Jayarathne, 2016).

1.1.2 Regional Trends in the Garments' Industry

In this era of globalization, knowing the competitiveness of African industries relative to those in other countries is crucially important to understanding the failure of manufacturing development in Africa (Fukunishi, 2020). Development of the garment industry lags far behind in Sub-Saharan Africa in comparison with Asia and Latin America. With few exceptions, African apparel products do not have a significant share in the export market, and even in the local market, they have almost vanished due to a massive increase in imports after trade liberalization in the 1990s (Garth & Biesebroeck, 2017).

According to Brooks and Simon (2019), the difficulties in Africa's garment sector extend beyond increased competition for local markets from legally imported clothing; declining incomes have reduced Africans' purchasing power whereas poor management capacity has caused factories to fail. Increased competition from imported Asian clothing producers, which have greater labor productivity and lower production costs are also important contributing factors. Morris, Staritz & Plank (2021) posits that, the growth of apparel exports in some African countries such as Kenya, Swaziland and Lesotho was commendable between 2000 and 2004. However, after the multi-fiber arrangement phase-out, the apparel industry declined quite drastically in terms of production, exports, employment and number of firms in all major sub-Saharan African apparel export countries. The global economic crisis further accelerated these developments through a downturn in global demand (Staritz, 2017).

Currently, whereas the share of labor-intensive goods represented by the textile and garment industry in merchandise exports is 9.0% in Asia, it is 1.0% in Africa. This

indicates that, despite low income, African countries either do not have a comparative advantage in labor-intensive industry or are not able to actualize this advantage (Fukunishi, 2020). Cesar and Serven (2017) point to a lack of human capital in the context of comparative advantage, by asserting that African countries have a scarcity of skilled labor relative to land, and hence, they do not have a comparative advantage in the manufacturing sector, which is a skilled-labor-intensive industry. Gary and Frederick (2017) observes that it is a puzzling phenomenon that most sub-Saharan African countries including Kenya do not have a competitive garment industry, considering that these are low-income countries which theoretically have a comparative advantage in labor-intensive industries such as garments'.

1.1.3 An Overview of Kenya's Garments' Sector

Following Kenya's independence in 1964, the textile and garments sector had begun to be considered an important component of manufacturing and economic growth (Mastamet-Mason, 2016). Thus, through the years, the sector became one of those that were targeted for employment creation and poverty reduction (Rael & Beatrice, 2019). The government, for instance, proceeded to outline a number of policies that were aimed at promoting growth and development within the sector. These policies are contained in various policy documents, such as Economic Recovery for Wealth and Employment Creation (2003-2007) and the Investment Programme for the Economic Recovery Strategy (Chemengich, 2017).

According to Fukunishi (2019), Kenya used to have the largest cluster in the garment and textile industry in East Africa when it was protected, but it drastically contracted after 1994 when trade liberalization became effective. Supported by the preferential access to the US market bestowed upon Sub-Saharan African countries, exports from Kenya increased sharply after 2000 (Cathy, 2017). The growth trend, however, disappeared again in 2005 following the abolishment of the quota system binding large exporters (Chemengich, 2020). Thus, though it seemed to make a solid but a late start in

export-oriented markets in early 2000's, the Kenyan garment industry has failed to grow since the emergence of trade liberalization (EPZ, 2022).

Currently, Kenya's garment sector has a three-tiered structure; in the EPZ where there are 21 large companies, and outside the EPZ where there are 170 medium and large companies, and more than 70,000 micro and small producers (MOIED, 2022). Local garment firms, as per Fukunishi (2019), are specializing in uniforms, and the local market is dominated by imported apparel. According to Mastamet-Mason's (2016), one of the reason as to why the Kenyan garment industry did not experience sustained growth after trade liberalization is because the local firms failed to take measures aimed at enhancing competitiveness and instead avoided competition by specializing in uniforms. Whereas avoidance of competition could be an indispensable strategy, detaching from competitive pressure further weakened the sector's competitiveness (Aggrey, Eliab & Joseph, 2017).

1.1.4 Determinants of Competitive Advantage in Garment Companies

Amin et al. (2019) defines competitive advantage as the sum of definite differences among firms which gives some superiority over others. According to Hill and Jones (2019), a firm has a competitive advantage over its rivals when its profitability is greater than the average profitability of all companies in its industry. Barney (2019) and Zahay & Griffin (2017) identifies two distinct ways in which firms attains competitive advantage; firstly, through the way a product is differentiated from other products (differentiation) and secondly, through the price of the product (cost leadership). Sofat and Hiro (2022) explains that, a low cost advantage attained by reducing operations costs allows a firm to reduce its prices in relation to those quoted by competitors, whereas a differentiation advantage allows a company to increase the profit margin on its products because it is able to charge and collect a premium price from customers.

The rise of global movement toward free markets in the 1990s and the rapid emergence of information technologies and knowledgeable consumers are forcing organizations to seek new ways of raising their performance comparatively to the competition (Kareska, 2016). As a starting point, company managements and scholars alike are seeking new insights on competitive advantage phenomena and the factors which determine its realization within organizations. Consequently, numerous studies have been carried out with varying conclusions being arrived at. Of specific interest in this study is, however, Prahalad and Hamel's (2018), Hill and Gareth's (2019) and Haibin (2019) propositions which focuses on the determinants of competitive advantage that are related to core competencies and internal capabilities of organizations; in their view, a firm's degree of competitiveness is determined by knowledge management practices, managerial networking, innovation and customer responsiveness.

Knowledge management, according to Girard (2016), is the process of creating, sharing, using and managing the knowledge and information of an organization. Key indicators of knowledge management in organizations includes knowledge audits (Sharma & Singh, 2019; Ragsdell, et al., 2020), knowledge sharing culture (Amayah, 2020; Allameh & Zare, 2018) and organizational rewards for knowledge sharing (Thatcher, et al., 2018; Tan & Nasurdin, 2018). Managerial networking refers to the use of social ties as informal governance for coordinating exchanges (Kotabe, Jiang & Murray, 2018). Managerial networking is measured by the extent of managerial ties with government agencies, ties with financial institutions and ties with business entities (Su, Xie & Wang, 2022). Innovation implies the adoption of a new idea or behavior (Saunila, 2021). A firm's degree of innovation is measured by the extent of research and development, cross-functional collaborations and the rate of new product introductions (Salunke, Weerawardena & McColl-Kennedy, 2018; Sakchutchawan et al., 2018). Customer responsiveness refers to the action taken in response to market intelligence concerning individual needs of target customers (Pehrsson, 2021). According to Joshi et al. (2020) and Pehrsson (2021), a firm's level of customer responsiveness is determined by the intensity of product customization, organizational flexibility and organizational agility.

1.2 Statement of the Problem

As stipulated in Kenya's big four agenda and vision 2030, apparel manufacturing should play a vital role in sustaining economic growth, job creation and poverty alleviation (Nel & Chiromo, 2019). For instance in 2015, the government aimed at growing the GDP contribution of clothing and other manufacturing sectors from 9.2 to 15% by 2022. This was to be attained through the establishment of industrial parks, special economic zones and implementation of policies to boost processing of textiles, leather, oil among other products (Zohrabi, 2021).

However, as far as textiles are concerned, Kenya's apparel sector has undergone a sustained decline to 50% of peak period (Fukunishi, 2017; World Bank; 2018; Chemengich, 2020). As Kenya's clothing industry strives to stay afloat in the fierce competition of liberalized markets, similar industries in Asia, Europe and Central America are dominating the global markets and positively contributing to national GDPs (Frederick & Gereffi, 2018). Consequently, adequate knowledge of determinants of competitive advantage can aid understand the factors impeding competitiveness, and the factors that can aid enhance it.

The major challenge in achieving the foregoing is, however, presented by the inadequacy of relevant studies which specifically focuses on the Kenyan context. The apparel sectors in Kenya and Sub-Saharan Africa have indeed been extensively studied, but with more focus on the sector's overall challenges (Rael & Beatrice, 2019; Fukunishi, 2020; Tuigong & Kipkurgat, 2022), the role of preferential trade agreements (Páez, 2017; Chemengich, 2017; Ojione, 2019; Mulangu, 2020) and the impact of imported second hand garments (Maina, 2020). Further, many studies on Kenya's apparel sector tend to focus on SMEs (Akoten & Otsuka, 2021; Ndalira, Ngugi & Chepkulei, 2020) foreign owned companies in the Export Processing Zones (Rolfe & Woodward, 2019; Kindiki, 2018, Chemengich, 2017) while overlooking large garment firms that are largely locally owned and governed by the Kenyan laws. Also, whereas the domain of competitive advantage and its determinants in garment sector has a vast

empirical literature, such studies are biased towards Asia (Li & Zhou, 2017; Vanathi & Swamynathan, 2021; Joarder, Hossain & Hakim, 2017), Central America and Europe (Frederick & Gereffi, 2018) while disregarding the sub-Saharan countries such as Kenya.

Compounding these challenges is the existence of varied views pertaining determinants of competitive advantage in the garment and other manufacturing sectors; Samarasinghe, Ariadurai and Perera (2022), and Ghosh, Kumuthadevi and Jublee (2016) for instance, proposes demand conditions, firm structure and strategy as key determinants whereas, Indiyati (2019), Harasim and Dziwulski (2019) have argued for organizational culture and intellectual capital. Camisón and Villar-López (2018) have highlighted the criticality of organizational learning capabilities whereas, Viswanadham (2019) and McIvor (2020) have cited the central role of value delivery processes, quality management practices and manufacturing location decisions. Other propositions on determinants of competitive advantage includes enterprise resource planning practices (Ram, Wu & Tagg, 2021), supplier development practices (Rotich, Aburi & Kihara, 2021) and porter's five forces (Pringle & Huisman, 2018; Dobbs, 2021; Njambi, Lewa & Katuse, 2022).

Prahalad and Hamel (2018), Hill and Gareth (2019) and Haibin (2019) proposes the notion of a determinants that are related to internal capabilities of organizations. Their frameworks highlights knowledge management, managerial networking, innovation and customer responsiveness as key determinants of competitive advantage in firms. In view of the foregoing knowledge gaps and conflicting views, this study sought to establish the determinants of competitive advantage in medium and large garment companies in Kenya. Specifically, the study sought to dissect the phenomena of competitiveness in Kenya's garment firms along the determinants highlighted by Prahalad, Hamel (2018), Hill and Gareth (2019) and Haibin (2019).

1.3 Objectives of the Study

The general objective of this study was to investigate the determinants of competitive advantage in medium and large garment companies in Kenya.

1.3.1 Specific Objectives

1. To determine the influence of knowledge management on competitive advantage in medium and large garment companies in Kenya

2. To assess the influence of managerial networking on competitive advantage in medium and large garment companies in Kenya

3. To assess the influence of innovation on competitive advantage in medium and large garment companies in Kenya

4. To investigate the influence of customer-responsiveness on competitive advantage in medium and large garment companies in Kenya

5. To establish the moderating influence of competitive intensity on the relationship between determinants and competitive advantage.

1.4 Research Hypotheses

H_{o1}: Knowledge management (X_1) does not have a significant influence on competitive advantage in medium and large garment companies in Kenya

H_{o2}: Managerial networking (X_2) does not have a significant influence on competitive advantage in medium and large garment companies in Kenya

H_{o3}: Innovation (X_3) does not have a significant influence on competitive advantage in medium and large garment companies in Kenya

H_{o4}: Customer-Responsiveness (X_4) does not have a significant influence on competitive advantage in medium and large garment companies in Kenya

H_{o5}: Competitive intensity (X_5) does not have a moderating influence on the relationship between determinants and competitive advantage.

1.5 Justification of the Study

Vision 2030 and the Government's medium-term plan 2008 – 2012 identified textile and clothing industry as an important sector in employment creation and poverty reduction. This decision is justifiable considering that at its peak in 1984, the textile and clothing industry was the second largest employer in Kenya after the civil service (Chemengich, 2020). A study which aims at enhancing the competitiveness of the garment industry, therefore, ought to be of great interest to the Kenyan government and the citizens. More specifically, the findings of this research should be vital to policy makers, garment manufacturers and scholars.

1.5.1 Policy makers

Results of this study may act as a guide to policy makers in allocating resources towards initiatives that will foster competitive practices in the garment sector.

1.5.2 Garment manufacturers

Currently, there are no indications of a looming reversal to protectionism. Regardless of the severity of challenges presented by liberalization, local garment producers must ready themselves to survive and thrive in the foreseeable future. One of the key aims of this study was, therefore, to offer solutions for creating and sustaining a competitive advantage in the local garment firms within the prevailing market conditions.

1.5.3 Scholars

The study will stimulate further studies in areas not sufficiently addressed in this research. It will further add to the existing body of knowledge on competitiveness in the garment sector.

1.6 Scope of the Study

This study focused on the determinants of competitive advantage in medium and large garment companies in Kenya. Its aim was to investigate the determinants of competitive advantage which are specifically related to firm's internal capabilities, as highlighted in Prahalad and Hamel (2018), Hill and Gareth (2019) and Haibin's (2019) frameworks. The research focused on the 170 medium and large garment manufacturing companies, which are registered and operating in Kenya (MITC, 2015; KAM, 2017). Excluded from this study were the companies operating within the Export Processing Zones (EPZ) which are mainly foreign owned, and which are governed by both local and international regulations. The choice of scope for this study was based on its high degree of reliability, considering that the firms in this scope are registered with the registrar of companies, in addition to the fact that their identities and locations were further documented in a 2015 study which was commissioned by the Ministry of Industrialization, Trade and Cooperatives (MITC). The choice was further motivated by the literature review which indicated that large garment firms outside EPZ had received dismal attention from researchers, despite their capability to play critical role in Kenya's economic growth (Rael & Beatrice, 2019; Onyango & Ikiara, 2018).

1.7 Limitations of the Study

Several limitations encountered in this study warrant attention. First, it was not possible to examine all determinants of competitive advantage relating to medium and large garment companies in Kenya. Therefore, this study was limited by the fact that only a few specific variables as evident in the conceptual framework were considered.

Nevertheless, the researcher went into the depth of these factors and subsequently documented the findings as accurately and objectively as possible. Further some firms were not at ease providing information related to their source of competitiveness. This limitation was remedied by firstly assuring the respondents of confidentiality of information provided by them, and secondly by ensuring that besides involving enumerators, the researcher personally administered as many questionnaires as possible in order to motivate respondents and to cultivate trust. In addition, the cross-sectional data set used in this study could not allow for causal interpretations among different factors. Thus, this research could not determine how the relationship between the predictors and the criterion would have changed along different conditions presented by timeline. On this basis, the researcher recommends conducting similar study longitudinally.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the existing literature on the predictor variables of the study and their inter linkage with competitive advantage in different economies around the world. It also explores the theoretical foundation to help understand the dynamics at play in relationships between each independent variable (knowledge management, managerial networking, innovation, and customer responsiveness) and competitive advantage in medium and large garment companies in Kenya. Further, it is in this chapter that the study's conceptual framework is developed and discussed. Based on a critical review of what has been presented by other scholars in this area, the study identifies research gaps that it aimed to bridge.

2.2 Theoretical Framework

This study was anchored on six theories; knowledge based view, institutional theory, open innovation, customer dominant logic, contingency theory and resource based view.

2.2.1 Knowledge-Based View of the Firm (KBV)

Knowledge-based theory considers knowledge as a distinctively unique resource (Kirsimarja & Aino, 2022) and views the ability to use, share, and create knowledge as a source of sustained competitive advantage (Sajadirad, 2018; Martín-de Castro, et al., 2018). This theory suggests that the primary reason for the existence of a firm is its superior ability to integrate multiple knowledge streams, for applying prior knowledge to tasks as well as for creating new knowledge (Nguyen, Phan & Nguyen, 2016). Knowledge-based theory also indicates that a firm's ability to create, transfer, and deploy knowledge may be affected by the firm's internal attributes (Blome, Schoenherr &

Eckstein, 2021) including absorptive capacity (Flatten, et al., 2018) and common knowledge (Edwards, 2019).

The knowledge-based view has its main foundation in the resource-based view (RBV) of the firm which focuses on strategic assets as the main source of competitive advantages (Moreno, Pinheiro & Joia, 2019; Kirsimarja, & Aino, 2022). It can be thus inferred that knowledge is the main strategic resource and when properly managed, it allows the firm to create economic, social, intellectual and cultural value (Von Krogh, Nonaka & Rechsteiner, 2019). The firm can thus be understood as a knowledge-bearing entity that manages its knowledge resources through its combinative dynamic capabilities (Singh & Rao, 2016). From this perspective, it is recognized that knowledge resources underlie the company's products and services, and at the same time, that a firm utilizes its organizational capability to continually create new knowledge resources and exploit those that already exist (Donate & Guadamillas, 2018).

Some researchers have, however, argued that whereas knowledge has received increased attention as the basis for explaining differences in firm performance, KBV is still a contested and unmapped terrain with no unified clear-cut theories. In Witherspoon et al. (2020) view, what is often lacking from KBV is an underlying definition of knowledge that allows future scholars to generate operationalizable models of the firm and its performance. López-Nicolás and Meroño-Cerdán (2018) have noted that, while all KBV scholars seem to agree that there are two types of knowledge - explicit and tacit - they have also developed their own typologies in conjunction with their specific theories (such as internal vs. external knowledge, know-how vs. know-what). It has further been noted that whenever scholars of KBV discuss organizational structure, it is mainly in the debate about the value and role of hierarchy (Mills & Smith, 2018). Hierarchies, according to Martín-de Castro, Lopez-Saez & Delgado-Verde (2018), have some negative features when it comes to knowledge tasks; tacit knowledge for instance is better coordinated in team-based settings, and flatter hierarchies may be more effective

in the management of firms (Quintane, et al., 2018) in particular when managing dynamic capabilities (Zheng, Zhang & Du, 2018).

Many researchers still maintain that KBV connects well to a parallel stream of knowledge management in practice (Fransson, Håkanson & Liesch, 2018; Srećković & Windsperger, 2018; Reus, 2019; Alguezaui & Filieri, 2021; Blome, Schoenherr & Eckstein, 2021; Grant, 2022; Hörisch, Johnson & Schaltegger, 2022). They have noted that over the last few years, managers have become increasingly aware of the importance of managing the information resources and the knowledge of their employees, and that various techniques and instruments have been developed to this end. KBV was critical in this study since it helped explain how managing different stocks of knowledge (e.g. market information about customers, competitors, suppliers and technology) determines the levels of competitiveness in medium and large garment firms in Kenya.

2.2.2 Institutional Theory

According to institutional theory, institutions support the effective functioning of the market mechanism (Puffer & McCarthy, 2018), and when formal institutions fail, informal governance mechanisms, such as social ties, act as substitutes to facilitate economic activities (Knoke, 2018).

On this basis, institutional theory aided in interpreting the descriptive results on managerial networking in Kenya's garment sector. It also helped interpret the findings on the link between managerial networking and competitive advantage in the firms that were being studied.

Institutional theory argues that social ties serve as a key form of governance during early transition phases in emerging economies in which market-supporting institutions are lacking; when emerging economies are more market oriented and marketing-supporting institutions are better developed, firms rely less on social ties to coordinate exchanges

(Yang & Konrad, 2018; Webb, et al., 2018). This contingent view suggests that the effects of social ties depend on institutional contexts. Institutional theory cites political and business networks as the most vital forms of social ties in forward thinking firms.

Political ties, according to institutional theory, provide an alternative enforcement mechanism through enhanced political legitimacy and status (Hillebrand, Nijholt & Nijssen, 2018). With strong political ties, managers can turn to government officials to enforce business contracts or stop unlawful behaviors. Thus, when legal enforcements are ineffective, firms with close political connections can exploit the power of their government connections, and government involvement in these incidents may work more effectively than the legal process (Liedong & Rajwani, 2017). Moreover, since inefficient enforcement significantly increases the costs of legal actions against unlawful behaviors (Adomako & Danso, 2021), political ties can be critical in executing transactions and preventing unlawful competition. In contrast, when legal enforcement is efficient, the importance of political legitimacy declines because firms can protect their interests through the courts at relatively lower costs (Dieleman & Boddewyn, 2019).

The theory further argues that, when legal institutional frameworks fail to impose effective punishments, unlawful or unfair competitive behaviors (e.g., piracy, contract violations, counterfeiting) prevail in the market and disrupt economic order (Puffer & McCarthy, 2018). With inadequate legal institutions, firms find it difficult or expensive to follow normal legal processes to gain protection against such behaviors (Knoke, 2018). In such a situation, business ties, in addition to facilitating resource sharing, can proxy for the legal framework to prevent unlawful or unethical behaviors through a legitimate mechanism (Webb, et al., 2018); thus if courts fail, a strong reputation within a business network can facilitate transactions because companies seek out only trustworthy partners (Yang & Konrad, 2018), which deters unlawful or unethical behaviors between firms connected by business ties.

According to institutional theory, firms with high network legitimacy are more desirable in the eyes of partner firms and important stakeholders – such as suppliers, buyers and investors (Hillebrand, Nijholt & Nijssen, 2018). A favorable reputation is likely to amplify the perceived quality of products offered by a firm and facilitate efficient access to financial resources; this is likely to increase a firm's competitiveness (Su, Xie & Wang, 2022). Currently, Kenya is among African nations that are ranked as "emerging markets" by IMF (Africa Business Pages, 2019), implying that formal systems of governance are still highly supplemented with informal governance in coordinating exchanges and accessing resources.

2.2.3 Open Innovation Theory

This theory assumes that enterprises can and should use external ideas as well as internal ideas, to discover and realize innovative opportunities (Inauen & Schenker-Wicki, 2018). On the basis of the concepts advanced in the open innovation theory, the theory aided in interpreting results for innovation variable. The theory also helped understand how knowledge management interacts with innovation to influence the levels of competitive advantage in Kenya's garment firms.

According to proponents of this theory, enterprises can still initiate and nurture innovations within the borders of their organizations, but they may also draw on alternative pathways to bring ideas to the market and to benefit from external knowledge (Spithoven, Vanhaverbeke & Roijakkers, 2020; West & Bogers, 2021). In this vain, researchers have identified five behaviors that capture most of what enterprises do when they practice open innovation; Networking, Collaboration, Corporate entrepreneurship, Intellectual Property (I.P) management, and R&D (De Jong et al., 2022). Additionally, researchers have identified three major external conditions which trigger enterprises to engage in Open Innovation, namely; large stock of basic knowledge, highly-educated and mobile labor force and efficient access to finances (Cantner, Joel & Schmidt, 2018).

Networking includes all activities for acquiring and maintaining connections with external sources of social capital, including individuals and organizations (Trott & Hartmann, 2016). Networks allow enterprises to rapidly fill in specific knowledge needs without having to spend enormous amounts of time and money to develop that knowledge internally or acquire it through vertical integration (Cummings et al., 2020). Corporate venturing, on the other hand, implies investments in new or existing businesses. It is usually done by large enterprises where they invest in start-ups or small, rapidly growing businesses in order to enable the enterprise recover innovations that were initially abandoned or that did not seem promising (Bilton & Cummings, 2017). Intellectual property (IP) management plays a crucial role in Open Innovation (Alexy, Criscuolo & Salter, 2016). Enterprises need to access external IP to speed up and nurture their own research engine. At the same time, they also profit from their own, unused IP when other enterprises with different business models pay royalty fees in order to access their IP (Dahlander & Gann, 2017). Internal R&D remains important in the new imperative. Many enterprises still perform R&D to develop new products, bring them to the market and make a profit.

2.2.4 Customer Dominant Logic (CDL)

The aim of CDL is to guide managers in understanding markets and customer responsiveness. According to this theory, a business approach that is grounded in customer agency (Heinonen, et al., 2017) will allow companies to gain an in-depth insight into customers' activities, practices, experiences, and context and thereby assist in developing superior customer offerings.

CDL was developed to meet complex marketing challenges by addressing core issues in business such as what a firm can offer to customers that they would be willing to purchase and pay for, as opposed to how the firm can sell more of its existing offerings (Strandvik et al., 2019). In dealing with issues of this nature, it was argued that firms

must start by understanding customers and their logic. In other words, the way managers perceive customers can become an important source of competitive advantage (Tynan, McKechnie & Hartley, 2021). The term "dominant" refers to customers having a dominant role in the firm. Thus, a firm applying CDL is dominated by customer-related aspects rather than by products, service, costs or growth (Heinonen & Strandvik, 2022).

Adopting customer-dominant business logic has several implications; firstly, firms must be aware of their secondary role in customers' lives and strive to be invited into customers' lives or businesses, ecosystems, activities, experiences and practices (Voima, et al., 2018). Secondly, firms' activities should be driven by an understanding of customer logic. In other words, customer orientation, which guides firm strategies toward the creation of superior quality and customer satisfaction (Mickelsson, 2020), should be substituted with customer dominance and a mindset of listening to customers in their own context (Strandvik et al., 2019). Thirdly, Customer-dominant business logic means that customer issues drive managerial thinking at all levels, from the boardroom to everyday interactions with customers, production, supply functions and organizational issues (Anker, et al., 2021). CDL underlines the need to transcend the visible customer–provider interactions and consider the invisible and mental life of the customer.

The apparel industry has always been at the mercy of whims of styles and fickle customers who want the latest designs while they are still in fashion, along with uncontrollable parameters such as weather and economic conditions (Moon, Lee & Lai, 2017). The fashion market today is marked by ever-changing characteristics of consumers, competition and technologies (Sun, Kim & Kim, 2021); sophisticated consumers call for a relentless changeover of choices in products, brands and even retail trading formats (De Felice & Petrillo, 2020). To this end therefore, customer dominant logic was an important theory in anchoring the aspect of customer responsiveness as a determinant of competitive advantage in medium and large garment companies in Kenya.

2.2.5 Contingency Theory

The basic premise of this theory is that organizational effectiveness is influenced not only by its strategic choices, but also by the degree of fit between the organization's structure and processes and its environment (Flynn, et al., 2017). This indicated that the contingency theory had a substantial contribution in explaining the moderating effect of competitive intensity, on the relationship between the predictors (knowledge management, managerial networking, innovation, customer responsiveness) and competitive advantage in medium and large garment companies in Kenya.

Expounding on this theory, Jones and Linderman (2021) points out that whereas each element of process and operations management can help a firm achieve improvements in efficiency and quality, the magnitude of these gains is dependent on the firm's competitive environment. Therefore, when operating in a highly competitive environment, organizations have to adopt a structure and management initiatives that are going to result in greater productivity. According to Fuchs and Köstner, (2016), gains in efficiency and quality can occur by producing a consistent product and continually improving existing processes. But as competition increases, these aspects of process management become even more necessary. Wong, Boon-Itt and Wong, (2018) have cautioned that firms which fail to adopt these practices are unlikely to keep pace with productivity gains achieved by competitors who are implementing better processes and utilizing superior equipment and technologically advanced tools. Further, as observed by Guo and Cao (2021), firms in competitive environments may also be forced to create new or redesigned processes more frequently as they try to thrive in a rapidly changing environment.

Environmental competitiveness, also known as environmental dynamism, can arise from many sources, such as the rate of change of innovation in a company's principal industry, the introduction of new products and services, and the uncertainty or unpredictability of competitors' actions and customers' preferences (Chavez et al., 2020). According to Jones and Linderman (2021), dynamic competitive environments

exist among organizations that compete in terms of low cost and differentiation. In order to remain competitive, organizations are therefore, forced to change in order to achieve the necessary level of fit for optimal productivity.

Garment production is quite a demanding and labor-intensive venture requiring fast responsiveness to market changes, flexibility, cross-functional team collaborations, shortening speed-to-the market deliveries and an incremental implementation of customer focus, quality and cost management within a highly competitive environment (Kim, 2020; Thomassey, 2021).

2.2.6 Resource Based Theory (RBT) of Competitive Advantage

The central premise of RBT addresses the fundamental question of why firms are different and how firms achieve and sustain competitive advantage by deploying their resources (Barney, Ketchen & Wright, 2018). RBT's central proposition is that competitive advantage is based on distinctive competencies, that is, firm-specific strengths that allow a company to differentiate its products from those offered by rivals, and/or to achieve substantially lower costs than its rivals. Distinctive competencies in this case, are assumed to arise from two complementary sources: Resources and Capabilities (Hill, Jones & Schilling, 2021). Resources as per Knott (2016), can be classified as either tangible (financial or physical) or intangible (i.e., employee's knowledge, experiences and skills, firm's reputation, brand name, organizational procedures**.** Andersén (2017) defines capabilities as a company's skills at coordinating its resources and putting them to productive use. These skills reside in organization's rules, routines, and procedures. Like resources (Hill, Jones & Schilling, 2021), capabilities are particularly valuable if they enable a firm to create strong demand for its products or to lower its costs

One of the principal insights of the resource-based view is that not all resources are of equal importance or possess the potential to be a source of sustainable competitive advantage (Hinterhuber, 2020). Much attention has therefore, focused on the

characteristics of advantage-creating resources. Barney, Ketchen and Wright (2018) holds the view that advantage-creating resources must meet four conditions, namely, value, rareness, inimitability and non-substitutability (VRIN). Greco, Cricelli and Grimaldi (2020) argues that the levels of durability, transparency, transferability and replicability are important determinants, while Chen, Lee and Lay (2016) suggest that resources must meet five tests, namely inimitability, durability, appropriability, substitutability and competitive superiority (Andersen, 2017). In sum, from a resource-based perspective (Warnier, Weppe & Lecocq, 2020), sustainable competitive advantage is the outcome of resource selection, accumulation and deployment. Hill and Jones (2019) have emphasized the criticality of functional (operational) competency - which is a form of distinctive competency- in creating and enhancing sustainable competitive advantage. Their framework on the building blocks of competitive advantage proposes among other dimensions, innovation and customer responsiveness, which partly constitutes the determinants of competitive advantage in this study.

2.3 Conceptual Framework

A Conceptual framework, as per Maxwell (2020), is a graphical or a narrative presentation which explains the main things to be studied - the key factors, concepts, or variables - and the presumed relationships among them. In line with theoretical and empirical literature that was reviewed for this study, knowledge management, managerial networking, innovation and customer responsiveness constituted the independent variables whereas competitive advantage forms the dependent variable. Competitive intensity was regarded as a moderator in the relationship between the dependent and independent variables, owing to its proposed effect on firms' operations and strategic choices.

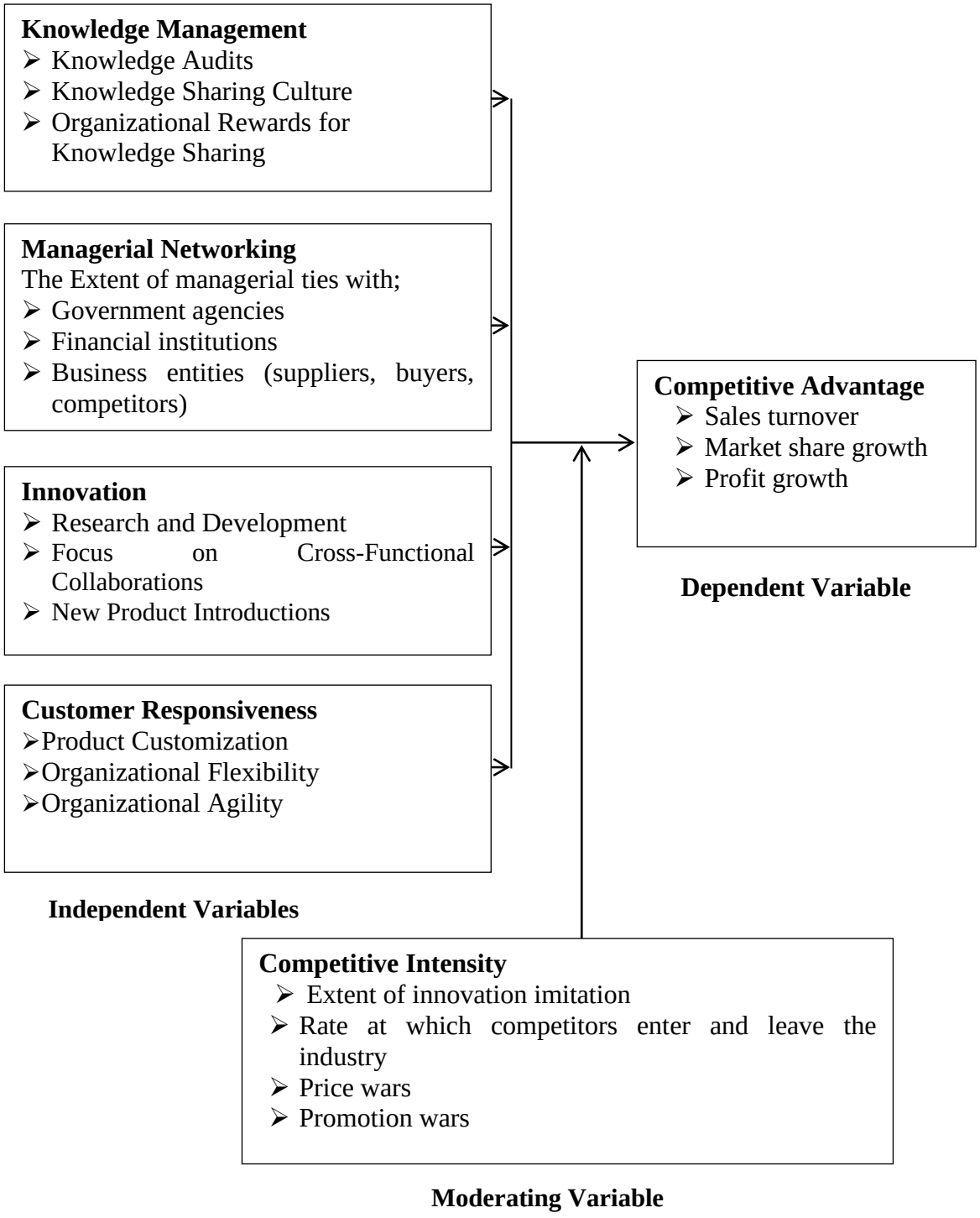

Figure 2.1: Conceptual Framework

2.4 Review of Literature on Variables

2.4.1 Knowledge Management (KM)

Knowledge management as defined by Thakur and Sinha (2020) refers to the systematic process for creating, acquiring, synthesizing, learning, sharing and using knowledge and experience to achieve organizational goals. A proper flow of information is essential for the growth of every organization. Girard (2022) defines knowledge management as the process of creating, sharing, using and managing the knowledge and information of an organization. Organizations regard knowledge as a vital asset for competitive advantage and are paying attention to its exploration (Gupta, 2017).

Knowledge is classified by a number of different taxonomies. Nonaka's taxonomy (2022), which classifies knowledge as tacit and explicit is the most cited (Wang & Wang, 2019). Tacit knowledge (also known as “known–how” knowledge) is a form of knowledge that is highly personal and context specific and deeply rooted in individual experiences, ideas, values and emotions. It includes mental models, expertise, cultural beliefs, and values (Gupta, 2017). Explicit knowledge, on the other hand, is the "know-what" knowledge that can be codified and articulated. It is therefore fairly easy to identify, store, and retrieve (Groff & Jones, 2019). This is the type of knowledge most easily handled by knowledge management systems, which are very effective at facilitating the storage, retrieval, and modification of documents and texts (Suppiah & Sandhu, 2018).

Skalkos (2019), Meihami and Meihami (2019) considers KM an important element for the organizations innovation capabilities. It is the key factor that helps to explore the new ways to create competitive advantages (Rahimli, 2019; Simaškienė & Stancikienė, 2021). Knowledge has become more associated with competitiveness due to its inimitability which makes it a valuable asset. Mahdi, et al. (2018) have stated that organizations should continuously look for new knowledge and effectively utilize it in order to deliver a better value to their customers against their competitors. Organizations

will face difficulty in maintaining their competitive position if they do not acquire new knowledge (Mariya, 2021; Agbim & Idria, 2022). Zhu et al. (2021) and John and Joann (2022) have shown that KM positively affects the outcomes of an organization's innovation, product and employees' improvement. Several studies have stated that knowledge management for competitive advantage can be fostered in three main ways; frequent knowledge audits, creating a knowledge sharing culture and introducing effective rewards for knowledge sharing (John et al., 2019; Rabbi, et al., 2022; Sameeni & Alvi, 2016).

Knowledge Audits

Knowledge auditing is defined as a survey measuring knowledge use, organizational receptiveness to knowledge, value of available knowledge, KM opportunities, deficiencies, gaps and problem areas, and is very important in KM systems (Jafari and Payani, 2020). Knowledge audits are important processes through which organizations can understand what knowledge is needed, available and used for organization's current activities (Ganasan, 2018). They can also aid in identifying what knowledge is missing and how this omission restricts the organization's activities (Drus & Shariff, 2018). Hence, knowledge audits can surface initiatives to improve the knowledge management (KM) processes of an organization and, in turn, improve efficiency and effectiveness (Sharma & Singh, 2019).

The dynamic nature of knowledge audits has been recognized along with the benefits of following such a process. According to Ragsdell, et al. (2020), knowledge audits are deemed as the first critical step for implementing knowledge management (KM) practices in organizations. This is a view that is supported by Jafari and Payani (2020) who acknowledges a knowledge audit as the first stage of an organization's KM strategy, where its purpose is to lay a concrete foundation (Dalkir, 2020) and enable evaluation of all areas of KM processes (Firestone & McElroy, 2019). Daghfous, Ahmad and Angell (2020) suggest that a knowledge audit can help organizations to determine and illustrate the knowledge they possess, where this knowledge resides and how it

flows through the organization. Furthermore, knowledge audit allows mapping and proactive transference of organizational knowledge (Pa, Taheri & Abdullah, 2019) and, according to Chan & Lee (2018), the results of the audit enable an organization to identify the intrinsic strengths and weaknesses of its KM processes and give the ability to unveil and exchange best practices between different parts of the organization (Ragsdell, et al., 2020).

There are many approaches to knowledge auditing in the literature (Ganasan, 2018; Chan & Lee, 2018; Pa, Taheri & Abdullah, 2019; Shukor, Rahman & Iahad, 2020; Burnett, Williams & Illingworth, 2020; Loxton, 2021; Roy, et al., 2021; Yip, Lee & Tsui, 2022). Generally, the approaches recommends a focus on the current status of organization's knowledge, identification of the goals and scope of audits (such as eliminating knowledge overload, duplication or scarcity), selecting a comparison reference (ideal or required state) and identifying the audit methods to be used, and finally performing the audit and documenting the knowledge assets. Daghfous, Ahmad and Angell (2020) recommends that knowledge audits ought to review six primary areas: acquisition and learning of knowledge, storage and maintenance, application, dissemination, creation of new knowledge, and the enforcement of performance metrics related to knowledge management.

Knowledge Sharing Culture

There are numerous features that characterize the organizational context in which people work (leadership, structure and sharing), and they can all be classified under the general heading of culture (Marouf, 2016). Culture constitutes the values, norms and ways of behaving shared by the members of an organization (Alvesson, 2019). Although there is no shortage of information about the impact of organizational culture on KM, the term "knowledge sharing culture" is relatively new. Early variants of the term include knowledge culture and knowledge creation culture (Amayah, 2020; Allameh & Zare, 2018).

O'Dell and Hubert (2018) provided a practitioner account of best practices, outlining how organizations can develop and implement a knowledge sharing culture. Trust, collaboration and open communication are all identified as main elements of an organization's knowledge sharing culture (Marouf, 2016). Zhu, et al. (2020) argued that the level of trust influences the extent of knowledge disclosure, as well as the degree of screening and sharing between two parties. With the deployment of knowledge management systems (KMS), organizations should adjust their culture to be knowledge-friendly (Jo & Joo, 2018; Teo, et al., 2018; Taylor, 2020) a knowledge-friendly culture encourages and trusts the creation, sharing, and utilization of knowledge in organizations. Studies by Islam, et al. (2018) and Chen, Chuang & Chen (2019), indicates that promoting a knowledge-culture is a major issue in KMS deployment. Thus, knowledge-oriented culture is needed in organizations to promote the sharing and the usage of knowledge, which subsequently develop trust.

Nguyen and Mohamed (2018) have noted that the concept of knowledge management is used widely, while also bringing forth the lack of insight into how to create a knowledge sharing culture. Nguyen and Mohamed observation is important for culture is the foundation, the lynchpin of establishing trust that impacts the degree of employee buy-in, underlies the willingness to share information and collaborate, and highlights the commitment to drive and sustain change throughout the organization (Allameh, Zamani & Davoodi, 2018). It can be said that culture is the blueprint that determines the organization's will and ability to survive environmental disruptions, the changes these disruptions bring about, and the ability to advance the organization along its lifecycle (Rai, 2018; Donate & Guadamillas, 2018; Mills & Smith, 2018).

Organizational Rewards for Knowledge Sharing

Motivation is a necessary prerequisite for knowledge sharing (Chang & Chuang, 2018; Olatokun & Nwafor, 2019). Because knowledge resides within individuals, knowledge cannot be shared effectively if individuals are not motivated to share it (Boer, Berends &

Van Baalen, 2018). According to Amayah (2020), employees generally expects four personal benefits from knowledge sharing. These are status and career advancement, better professional reputation, emotional benefits and intellectual benefits. Thatcher, et al. (2018) and Tan and Nasurdin, (2018) have concluded that rewards are a critical success factor of a knowledge management systems deployment. This is so because unlike other projects, the success of a KMS project is based on the participation of the organization's employees to create and use the knowledge that is stored in such systems (Lindner & Wald, 2018).

Studies on individual motivations have identified two categories of motivation: extrinsic and intrinsic (Carsrud & Brännback, 2018; Cerasoli, Nicklin & Ford, 2021). Existing literature indicates that mixed arguments exists over the effects of extrinsic motivation on knowledge sharing. Some studies have suggested that extrinsic incentives motivate knowledge sharing (Vuori & Okkonen, 2019; Fullwood, Rowley & Delbridge, 2020; Ramayah, Yeap & Ignatius, 2020; Zhang, De Pablos & Xu, 2021; Hu & Randel, 2021). Hung et al. (2018) have, for instance, asserted that extrinsically motivated employees are driven by the benefits and rewards derived from sharing their knowledge. Other researchers have insisted that such incentives can have negative effects (Hau & Kim, 2018; Casimir, Lee & Loon, 2019). Still other studies have reported that organizational rewards have no effect on employees' knowledge sharing intentions (Hung, Lai & Chang, 2018; Seba, Rowley & Lambert, 2019). These mixed results suggest that more empirical studies are needed to draw a general conclusion about the effects of extrinsic motivation on employee knowledge sharing (Hau, et al., 2020). Still, scholars such as King (2018) and Jeon, Kim and Koh (2018) have shown that employees' enjoyment in helping others significantly influences their attitudes and behavioral intentions towards knowledge sharing. Hung et al. (2018) found that intrinsic motivation plays an important role in explaining employees' knowledge sharing intentions.

Hau, et al. (2020) argues that tacit knowledge - knowledge that is rooted in individual experiences, ideas, values - by nature, is stickier (complex) than explicit knowledge - codified knowledge that can be retrieved from management information systems (Reiche, Harzing & Pudelko, 2022). Accordingly, it is natural for employees to adjust their willingness to share knowledge according to the stickiness of the knowledge to be shared, requesting adequate extrinsic or intrinsic benefits in exchange (Tallman & Chacar, 2018). Moreover, some researchers have suggested that explicit and tacit knowledge have different economic values (Dinur, 2018; Lin, et al., 2020; Song, 2021); explicit knowledge is regarded as relatively less expensive because it is easy to transfer to others. By contrast, tacit knowledge carries a higher value since it is concerned with direct contact and the observation of employee behaviors and is related to more complex ways of acquiring knowledge from other employees (Hau, et al., 2020). Thus, by nature, tacit knowledge is more difficult to share than explicit knowledge, which makes tacit knowledge costlier to share.

2.4.2 Managerial Networking

Because economic action is embedded in networks of inter-personal relations, many scholars have highlighted the importance of social ties as informal governance for coordinating exchanges (Kotabe, Jiang & Murray, 2018). Through their networking activities and personal interactions, firm executives build social ties not only with business players but also with government agencies (Sheng, Zhou & Li, 2018). Managerial networking, as per Bekerom, Torenvlied and Akkerman (2016)**,** is the process of developing and exploiting top managers' social ties, contacts, and connections with external entities with the aim of gaining access to external resources, reducing transaction costs or increasing transaction values, as well as reducing environmental uncertainty through resource sharing and information exchange**.** Naqshbandi and Kaur (2021) have defined managerial networks as the executives' boundary-spanning activities and their associated interactions with external entities. Managerial networks are primarily designed to aid in seizing market opportunities (Boso, Story & Cadogan,

2020; Li, et al., 2020) and countering environmental threats (Sheng, Zhou & Li, 2018; Zhu & Johansen, 2020)

In recent years, managerial networking has received significant attention as a focus of strategic management research (Shu, et al., 2019; Ismail, et al., 2020). While previous research on the subject largely emphasized strategic value or strategic choice of external networks (Chung, 2019; Torenvlied, et al., 2020), recent studies have shifted more attention to the structure, pattern, and contingencies of these networks (e.g., Bekerom, Torenvlied & Akkerman, 2016; Boso, Story & Cadogan, 2020; Zhou, et al., 2021; Su, Xie & Wang, 2022).

Kotabe, Jiang and Murray (2018) argues that, since the redistributive mechanism (the allocation of resources mainly by government agencies) and the market mechanism (the allocation of resources mainly by market forces) coexist, firms can acquire resources from both the government and financial institutions. Thus, both political networking (cultivating relationships with government agencies) and financial networking (cultivating relationships with financial institutions) are emphasized as important managerial networking (Su, Xie, & Wang, 2022; Wang & Chung, 2020**)**. In addition, business networking (cultivating relationships with suppliers, competitors and non-competitor firms) can facilitate inter-firm resource exchanges; thus, it is also a critical component of managerial networking (Torenvlied, et al., 2020; Boso, Story & Cadogan, 2020). Political networking, financial networking, and business networking are therefore the three important types of managerial networking (Liedong & Rajwani, 2017; Haibin, 2019; Nazlina, 2016).

Managerial Ties with Government Agencies

Political ties are a firm's informal social connections with government agencies and officials in various levels of administration, including central and local governments, and officials in regulation agencies, such as tax or stock market administrative bureaus (Sheng, Zhou & Li, 2018 Guo, Xu & Jacobs, 2021). Political ties enables firms to obtain

key regulatory resources (Liedong & Rajwani, 2017). For instance, in emerging economies where governments are known to guide economic activities by devising industry development plans and setting regulatory policies (Li, et al., 2020), political connections can provide firms with crucial access to policy and aggregate industrial information (Pan, Wei & Yang, 2021). Also noting that many governments in transition economies still controls a significant portion of scarce resources, such as land, bank loans, subsidies, and tax breaks (Ismail, et al., 2020; Zhu & Johansen, 2020), a firm's connections with government agencies can offer efficient access to these resources (Zhou, et al., 2021; Haibin, 2019; Nazlina, 2016). Further, political ties improves a firm's political legitimacy or the extent to which government officials or agencies assume that a firm's actions are desirable and proper (Adomako & Danso, 2021). Political legitimacy in this case can help firms receive exclusive government endorsements and favorable treatment (Dieleman, & Boddewyn, 2019).

Boubakri, et al. (2019), Su, Xie and Wang (2022) have noted that, a key challenge in maintaining political networks is that such networks lacks effective mechanism of ensuring long-term cooperation. They have pointed out that the top priority of government agencies and officials center on developing personal political careers and realigning their objectives with the interests of incumbent governments, whereas business organizations attempt to achieve consistent economic returns. This goal divergence according to Pan, Wei and Yang (2021) may create relationship conflict that may constrain long-term cooperation. Also, since limited time horizon tend to exists in firm-government relationships, the exchange parties, especially if they possess greater power (i.e., government officials), are more likely to engage in opportunistic behaviors (Dieleman and Boddewyn, 2019); government officials, for instance, may engage in rent seeking behaviors to obtain personal benefits at the expense of business organizations (Sheng, et al., 2018).

Adomako & Danso (2021) on the other hand, have cautioned that the benefits of political ties should not be overshadowed by challenges related to such ties. They have argued that, in order to effectively exploit the benefits of political ties, managers need to adjust their use of political ties to reflect industrial uncertainty, such as technological turbulence; for instance, when the industry is characterized by low levels of technological turbulence, the resources obtained from political ties, such as tax subsidies, licenses and project approvals can help firms build competitive advantages and achieve better performance (Guo, Xu & Jacobs, 2021; Adomako & Danso, 2021).

Managerial Ties with Financial Institutions

Many new business ventures in firms involve large financial resource commitments (Machirori & Fatoki, 2020; Senik, et al., 2018). Therefore, when new ventures are lacking financial networks, it is difficult for them to acquire resources from financial institutions. Such resource constraints are likely to stifle new venture growth (Stewart, 2020) and impede the firm's competitiveness and performance (Gunto & Alias, 2021).

Compared with developed economies, the financial market infrastructure is weaker in developing nations (Sigmund, Semrau, & Wegner, 2022). Because of the high risks of new ventures, information asymmetries between new ventures and financial institutions, and the weak financial market infrastructure (Stewart, 2020; Semrau & Sigmund, 2019), it is often difficult for firms in developing economies to acquire adequate funds from financial institutions for capital intensive projects. By providing a fast mechanism to obtain private information, financial networking provides an advantage for obtaining resources from others and reducing the tendency to behave opportunistically (Su, Xie & Wang, 2022). Financial networking enables the transfer of information that reduces financial institutions' doubts about a firm's new ventures and instills greater confidence (Bekerom, Torenvlied & Akkerman, 2016). Thus, firms with strong financial networks are more likely to obtain resources from financial institutions. Various researchers (e.g. Zhu & Johansen, 2020; Stewart, 2020; Semrau & Sigmund, 2019; Machirori & Fatoki, 2020; Kotabe, Jiang & Murray, 2018) have presented empirical evidence showing that

financial networking has a significant impact on lending decisions made by financial institutions.

Senik, et al. (2018), Gunto and Alias (2021) have acknowledged the importance of financial networking in firm's performance but cautioned that there is an optimal level of returns which are realizable from financial networking; thus, if financial networking passes this level, its net value decreases; because resources are crucial to firm's performance (Boso, Story & Cadogan, 2020), the positive relationship between business networking and firm's performance is usually strongest when financial networking is at a medium level.

Managerial Ties with Business Entities

Business ties refers to firm's informal social connections with business organizations, such as buyers, suppliers, competitors and other market collaborators (Sheng, Zhou & Li, 2018). In business ties, firms have common interests in maximizing their economic returns (Acquaah, 2019). Thus, the parties work together to coordinate exchanges (Andrews & Beynon, 2017). Ongoing interactions and collaborations cultivate trust, commitment, and mutual dependence between firms (Shu, et al., 2019; Zhong, Yang & Wang, 2020). Such relational norms constrain their opportunistic behaviors, reduce the perceived risks and transactional costs in the relationship, and encourage long term cooperation (Boubakri, et al., 2019).

Existing studies have provided ample evidence that business networking aids in acquiring resources, valuable information, and knowledge (e.g., Konsti-Laakso, Pihkala & Kraus, 2019; Otto, Lee & Caballero, 2018). Ties with customers and suppliers facilitate the creation, acquisition, and exploitation of knowledge (Sharafizad, 2018; Mitrega, et al., 2019). Further, close contacts with suppliers are helpful in acquiring quality materials, superior services, and timely and reliable deliveries (Rasouli, et al., 2016). Ties with buyers create customer loyalty, sales volume, and reliable payments (Ebbers, 2021). Good relations with competitors, on the other hand, facilitate

information and resource sharing (Kasemsap, 2016) while allowing for implicit collusion to deal with environmental uncertainties (Schoonjans, Van Cauwenberge & Vander Bauwhede, 2020). Noting that a firm's past and current networks are indicative of its reputation, Sheng, Zhou and Li (2018) have asserted that social ties with reputable business entities can help a firm enhance its image and obtain legitimacy in business communities. Such legitimacy can be a strategic resource that may attract business partners, facilitate transactions, and offer economic benefits (Gao & Jiang, 2019).

2.4.3 Innovation

It has become commonplace to argue that in the contemporary "knowledge-based economy" characterized by both accelerating pace of change and increasing complexity and uncertainty, the ability of firms to adapt to their external environment and to remain competitive is closely related to their capacity to innovate and continuously upgrade and renew their knowledge bases, products and structures (Varis & Littunen, 2017). Utkun and Atılgan (2017), defines innovation as the implementation of a new or significantly improved product or services, process, marketing method, or a new organizational method of business practice, workplace organization or external relations. Innovation according to Saunila (2021) implies the adoption of a new idea or behavior. Dobni (2017) concludes that firms that possess high innovation orientations engage in value creation strategies, for example, developing new products or services. Yang et al. (2016) argues that innovation should be regarded as an organizational capability, because it is an act that deploys resources with a new ability to create value. Developing innovation capabilities is therefore important because it plays a key role in the survival and growth of organizations (Saunila, 2021).

In many ways, building distinctive competencies that result in innovation is the most important source of competitive advantage because innovation can result in new products that better satisfy customer needs, can improve the quality attributes of existing products, or can reduce the costs of making products that customers want (Hill & Jones, 2019). According to Saunila (2021), organizational innovations themselves have

impact on business performance with regard to productivity, lead times, quality, and flexibility. Thus, the ability to develop innovative new products or processes gives firms a major competitive advantage because it allows them to differentiate its products and charge a premium price and/or lower its cost structure below that of its rivals (Hill & Jones, 2019).

Thompson, Okon and Nwonye (2022) have observed that apparel products are faced with diverse challenges owing to the rapidly changing fashion cycles, knowledgeable consumers, and rigorous competition. As a result, apparel developers must remain agile to compete and succeed in today's market environment. Utkun and Atılgan, (2017) supports this view by asserting that firms must embrace innovation, failure to which they either self-destruct or get rejected by the market. The most commonly applied indicators of a firm's commitment to innovation, as per Wysocki (2018), Tang and Murphy (2019), and Turkulainen and Ketokivi (2019) are based on R&D intensity, the rate of cross-functional collaborations and new product announcements. These are viewed as important output indicators because they measure the main result that can be reached in an innovation perspective. Further, field data based on the three indicators is relatively easy to quantify (Davila, Epstein & Shelton, 2019).

Research and Development (R&D)

Some researchers (Weifeng & Zuhui, 2020; Başgoze & Sayin, 2020; Akcali, & Sismanoglu, 2022; Sharma, Davcik, & Pillai, 2016) usually takes R&D expenditures primarily as an input indicator of the efforts that companies make in establishing R&D that might eventually lead to output. However, apart from the actual correlation of R&D input with R&D output through patents (Sandner & 2018; Mazzucato & Tancioni, 2020; Mazzucato & Tancioni, 2020; Geum, et al., 2020; Bointner, 2021), R&D efforts can also indicate the innovation competences a firm possess that can affect organizational performance (Mazzarol, & Reboud, 2018; Brzustowski, 2019; Shuang, 2016).

Many studies (Liu, Keller & Shih, 2018; Pippel, 2020; Adeyeye, Jegede & Akinwale, 2020; Ozturk & Zeren, 2022, among others) have, invariably, reported a significant and positive effect of R&D on innovation and firm performance. However, the estimated elasticity of productivity or output with respect to R&D has also been found to vary widely in these studies (Schwartz, et al., 2018; Wang & Wu, 2019; Lin, 2021; Sun & Anwar, 2022). A closer look on the empirical literature reveals several reasons for a wide variation in the elasticity estimation. First, it is observed that these results vary according to the type of industry in consideration (Lin, Ge & Goh, 2018; Teirlinck & Poelmans, 2019; Kocoglu, et al., 2019); for instance, in R&D-intensive industries, by and large, elasticity is found to be larger. Second, the choice of the estimation technique is another source of the divergence; in several studies, application of different econometric techniques has yielded wide variation in the results with the same data (Merkley, 2018; Weifeng & Zuhui, 2020; Sridhar, Narayanan & Srinivasan, 2021; Fortune & Shelton, 2019). Third, it is also observed that a vast variation exists in results between firm-level and industry-level data (Chrisman & Patel, 2019; Seru, 2021; Brown, 2017). Finally, the size of elasticity also depends heavily on the choice of the indicator of a firm's performance - such as the choice to use labor productivity, ROI, profit growth, sales growth, among other indicators (Thomas, Sharma & Jain, 2018; Lazzarotti, Manzini & Mari, 2018; Bain & Kleinknecht, 2016).

Further, there are scholars (Ciftci, Lev & Radhakrishnan, 2018; Fan, 2018; Barge-Gil & López, 2021) who affirms the importance of R&D in that it involves the generation of new ideas, new blue prints and new models (part of which eventually lead to new patents and new products), but asserts that the role of R&D in enhancing a firm's innovative capacity is over estimated. In his seminal work titled "Innovation without R&D", Som (2019) has for instance, demonstrated that there is a considerable share of non-R&D-performing firms whose innovativeness, competitiveness and role in the innovation system cannot be explained sufficiently by R&D-based models of innovation research. In view of the aforementioned contradictions surrounding the relationship

between R&D intensity, innovation capabilities and firm's competitiveness, more studies may be required to unravel the link between the three variables.

Cross-Functional Collaborations

Cross-functional collaborations in innovation context refers to the magnitude of interaction and communication, the level of information sharing, the degree of coordination, and the extent of joint involvement across functions (departments) in specific new product development tasks (Troy, Hirunyawipada & Paswan, 2022). One of the best ways to achieve cross-functional collaboration is to establish cross-functional product development teams composed of representatives from R&D, marketing, and production. The objective of a team should be to take a product development project from the initial concept development to market introduction (Hill & Jones, 2019). Noting that new product development (NPD) is one of the critical dimensions of product innovation (Wheelwright, 2017), then tight cross-functional integration among R&D, production, and marketing enables firms to engage in product development projects which are driven by customer needs, to design new products for ease of manufacture, to keep development costs in check in addition to minimizing time to market (Hill & Jones, 2019). Turkulainen & Ketokivi, M. (2019) considers R&D function as typically the most important source of new project ideas, but goes on to affirm that early involvement of operations and marketing in product development can, indeed, boost creative ideas and features in new products, while capturing important information from the market. According to Turkulainen & Ketokivi (2019), these additional sources of innovation cannot, however, be utilized unless information is processed in the organization across the functional units.

Hill & Jones (2019), posits that integration between R&D and production can help a company to ensure that products are designed with manufacturing requirements in mind; Designing for manufacturing through R&D lowers manufacturing costs and leaves less room for mistakes and thus can lower costs and increase product quality. Koufteros, Rawski & Rupak (2017), have observed that fixing problems during product

development process consumes valuable resources. This may adversely affect product development time and hamper the firm's goal to pursue a first-mover advantage. In such cases, an integrated organizational response can diminish incidences of glitches and improve the ability of the firm to respond to engineering changes, subsequently leading to improved market success. Kleinsmann, Buijs and Valkenburg (2017) emphasizes the importance of cross functional teamwork in the conversion process of personal, tacit knowledge into common organizational knowledge. Team knowledge comprises shared mental models of the task domain, its procedures and conceptual apparatus as well as the team situation. Thus, as the product progresses from one stage to another, the partially completed product embodies the information and knowledge of the development team (Rauniar & Rawski, 2019). The consequences associated with the lack of functional integration and poor teamwork are highlighted by Varis, and Littunen (2017) when they point out that in owner-managed medium enterprises, power and decision-making are concentrated in the entrepreneur. Thus, in most cases, the owner-managers tend to be less amenable to others' advice and are reluctant to delegate decision-making to others, which easily leads to reduced innovativeness.

Still several downsides of cross-functional integration have been reported such as the complexity of decision making in larger teams and lower efficiency and speed (Proehl, 2020). Other studies reveal communication problems between R&D and marketing personnel and tensions that may arise between the two parties (Okhuysen & Bechky, 2016; Majchrzak, More & Faraj, 2019). Nevertheless, it is broadly acknowledged that cross-functional integration to some extent is a key factor in developing successful new products (Botzenhardt, Meth & Maedche, 2018).

New Product Introductions

A few decades ago, quality was the competitive priority that won orders in the marketplace (Tanninen, Puumalainen & Sandström, 2018). More recently, time-based competition has emerged as the winning strategy, especially in fast-cycle industries (Filho & Saes, 2020). Being the first to introduce a product into the market can bring

significant benefits like higher price premiums or greater market share (Tang & Murphy, 2019). Conversely, delaying the introduction of new products can lead to costly consequences such as lower market share, lower margins, or the loss of customer goodwill **(**Ku, Huang & Kuo, 2018**).** Thus, generally, the frequency at which a firm introduces new products has an important strategic objective mainly because it affects firm's customers and competitors in significant ways (Li & Wang, 2016).

Researchers have used new product announcements, traced through various sources and databases, as an indicator of the innovative performance of companies; Fukushima et al. (2021) and Paul (2022) have outlined the advantages of a company bringing product into the marketplace before its competitors, and how it enhances innovation performance while enabling a firm to wrestle away a larger share of the marketplace. McGrath (2019), has presented evidence which indicates that product life cycles are getting shorter in both high-technology industries and industries not regarded as high-technology; these changing competitive realities make the capability of introducing new products faster and on time much more important (Hu Jiang & Lee, 2020). On the contrary, Tyler and Caner (2016), Asaba and Lieberman, (2018) have pointed out that past research has rarely investigated the link between new product announcements, innovation performance and firm performance, and thus consistent results are yet to be produced regarding the possible effects of these variables on profit growth. Asaba and Lieberman (2018) strongly expects new product introductions to be positively associated with firm growth, but admits to being unaware of sufficient research documenting this result. According to Stark (2022), positive relationship between the number of patents and new product announcements is primarily found at the level of industries and not at the level of individual companies.

Generally, existing literature (McGrath, 2019; Lin & Chang, 2019; Filho & Saes, 2020; Li, et al., 2020; Ivanov, Sims & Parker, 2020; Mann & Babbar, 2017) suggests that the economic consequences of being late to market are significant. This is evident from the extent of literature (McNally, Akdeniz & Calantone, 2018; McGrath, 2019; Gopal, et al, 2020; Chang & Chen, 2016, among others) indicating that firms that enter the market

late experience higher development and manufacturing costs, lower selling prices, and lower profit margins (McNally, Akdeniz & Calantone, 2018; McGrath, 2019; Gopal, et al, 2020; Chang & Chen, 2016). Other researchers (Lau, Yam & Tang, 2018; Cucculelli & Ermini, 2019; Nadkarni & Chen, 2021) have focused on market share and shown that there are significant market share penalties for inconsistent and delayed product announcements.

2.4.4 Customer Responsiveness

Customer responsiveness refers to the action taken in response to market intelligence concerning individual needs of target customers (Pehrsson, 2021). It entails giving customers what they want, when they want it, and at a price they are willing to pay – provided that a firm's long-term profitability is not compromised in the process (Hill & Jones, 2019). For manufacturing firms, customer responsiveness includes value-adding activities such as solving customers' problems, building relationships with customers and customizing the offering (Pehrsson, 2021). According to Preble and Hoffman (2020) customer responsiveness is an important differentiating attribute that can help to build brand loyalty. Strong product differentiation and brand loyalty gives a company more pricing options (Gebauer, Gustafsson & Witell, 2018); it can charge a premium price for its products or keep prices low to sell more goods and services to customers (Rothaermel, 2022). Either way, the company that is more responsive to its customers' needs than are rivals will have a competitive advantage, all else being equal (Hitt, Ireland & Hoskisson, 2019). Ahmad, Schroeder and Mallick (2017), Shahid and Azhar (2020), Wang, Chang and Chiu (2020) and Harraf, et al. (2022) proposes three prerequisites for attaining superior responsiveness to customers; product customization, organizational flexibility and organizational agility.

Product Customization

Over the past decades, there has been a growing recognition among scholars and practitioners that product and service differentiation represents a source of competitive

advantage (Gebauer, Gustafsson & Witell, 2018). As a more extreme form of differentiation, the concept of customization has faced increasing popularity among firms (Coelho & Henseler, 2019). Customization refers to the process of varying the features of a good or service to tailor it to the unique needs or tastes of groups of customers or in the extreme case, individual customers. Although extensive customization can raise costs, the development of flexible manufacturing technologies has made it possible to customize products to a much greater extent than was feasible a decade ago without experiencing a prohibitive rise in cost structure (Hill and Jones, 2019).

The support for the relationship between customization capability and a firm's competitiveness is evident in various empirical studies. Ahmad, Schroeder and Mallick (2017) report that the support for the aforementioned relationship can be explained by the dynamic capabilities perspective; an enterprise with customization capability is able to dynamically adjust its resource/skill mix to respond to unique customer demands and, thereby, attain superior plant competitiveness. As per Franke, Schreier & Kaiser (2017), customized offerings are likely to satisfy a customer more than standardized offerings would, because they facilitate a real match between customer and product. Merle et al. (2017) have shown that customization provide a solution to consumers' need for uniqueness. Other studies (Lyons, et al., 2019; Harzer & Piller, 2020; Trentin, Perin & Forza, 2021) have confirmed a significant effect of customization on customer trust. A viable explanation for the customization-trust effect is that the customer may see the time and effort involved in customizing services as a signal of the benevolence of the firm and as an indication of high quality (Piller, 2017). Also through customization, the attractiveness of alternatives diminishes relatively to the customized offering thereby increasing brand loyalty (Tseng & Piller, 2018).

On the contrary, Ferguson, Olewnik & Cormier (2018) argue that empirical evidence for competitive advantage and company growth through customization is rather anecdotal in nature. Also, as per Ahmad, Schroeder & Mallick (2017), finding a balance between product customization and low cost is a fundamental challenge faced by managers in

many manufacturing industries. Trentin, Perin & Forza (2018) on their part, questions whether the fundamental assumptions underlying the customization concept for satisfying individual customer preferences actually hold – customers may not have well-defined preferences to be revealed, and they may fail to appreciate customized offers that fit their measured preferences. Daaboul, et al., (2018) asserts that customers' demand for customized products and services may vary or even be nonexistent – that is, consumers may not regard customization as beneficial for them. To overcome possible barriers to customization, ElMaraghy, et al. (2020) argues that understanding the consequences of customization is particularly crucial for firms. In other words, selecting customization strategies requires familiarity with the effects that customization has on customer-firm relationships (Yoo & Park, 2016)

Organizational Flexibility

The markets in which manufacturers and service firms compete are increasingly influenced by intense foreign competition, rapid technological change, shorter product life-cycles and customers increasingly unwilling to settle for mass-produced items or services with limited value (Moon & Ngai, 2019; Purvis, Gosling, & Naim, 2021). For this reasons, competitive success in manufacturing has become strongly linked to the ability of a firm to respond flexibly to its environment and meet the emerging challenges with innovative responses (Bernardes & Hanna, 2016).

Kanchanda & Ussahawanitchakit (2018) defines organizational flexibility as the firm's ability to respond effectively to changing circumstances. Hajipour & Moradi, (2020) characterizes flexibility as a competitive response to market uncertainty due to its accommodating nature. Prommarat, Pratoom & Muenthaisong (2022) defines organizational flexibility as the firm's ability to meet an increasing variety of customer expectations while keeping costs, delays, organizational disruptions and performance losses at or near zero. In general, these definitions contain the notion that environmental uncertainties need to be accommodated or buffered within certain pre-determined constraints.

Literature review indicates that several definitions (e.g. Ruiner, Wilkens & Küpper, 2020; Cheng, et al., 2021; Bran, Udrea & Ionescu, 2022; Yousaf & Majid, 2018) have attempted to include a link to customers' needs. However, most of the more traditional notions of flexibility seem to be related to uncertainty and options, wherein a flexible system does not directly provide superior value to customers but rather, acts as an enabler to providing superior value and seems to connote a potential, as opposed to realized ability (Yi, Ngai & Moon, 2018; Liao, Chuang & To, 2018; Srinivasan, Mukherjee & Gaur, 2018; Wong, Boon-Itt & Wong, 2018; Anastassiu, et al., 2016). This concurs with Fioretti's (2019) seminal findings that managers ought to perceive flexibility as a means rather than an end in itself.

Alolayyan et al. (2018) argues that operational flexibility is a vital managerial tool to both manufacturing and service industries especially in highly competitive business and market environments. Firms that sets out to exploit an unpredictable environment must adopt a wider array of behavioral patterns than a firm designed to cope with a stable and predictable environment (McCann & Selsky, 2019). These considerations suggest that firms characterized by a flexible organization should exhibit both a high cognitive ability, in order to understand unfamiliar situations, and a substantial innovative ability, in order to cope with unfamiliar situations (Fioretti, 2019). Findings by Alolayyan et al. (2018) have revealed a significant and positive relationship between flexibility and firm performance. Results by Purwanto (2016) have similarly shown that manufacturing flexibility can positively enhance operational performance. According to Al-jawazneh, (2019), manufacturing flexibility allows companies to produce the right quantity of high quality products quickly and efficiently through setting-up time reduction, cellular manufacturing layouts, preventive maintenance, quality improvement efforts and programs, and reliable suppliers. These are possible on machines and equipment, labor, material handling and routine flexibilities (Kim, Suresh & Kocabasoglu-Hillmer, 2020).

Organizational Agility

In the current competitive environment characterized by high-intensity rivalry and uncertain environment, the ability to respond swiftly and effectively (agility) is a necessity that separates successful organizations from those that flounder (Harraf, et al., 2022). Roberts and Grover (2019) defines agility as the ability to respond to customer demands in a timely and effective manner; elements of this quick and effective response include shorter manufacturing lead times than competitors and rapid delivery of goods. Teece, Peteraf and Leih (2016) refers to agility as the ability to detect and seize market opportunities with speed and surprise. They contend that agile firms continually sense opportunities for competitive action in their product-market spaces and marshal the necessary knowledge and assets for seizing those opportunities. Chakravarty, Grewal and Sambamurthy (2020) describes agility as a synthesis of existing technologies and methods of organizing production, wherein flexibility and speed are key contributors to agility; organizational agility, therefore, is the ability to correctly envision change, seamlessly reconfigure operations and offer transparent added value to products and customers (Zhang 2018; Jacobs, Droge, et al., 2018).

The concept of organizational agility stresses simultaneous excellence on a wide range of competitive metrics (Tseng & Lin, 2018; Tallon & Pinsonneault, 2018; Lee, 2022), especially being first to market with leading-edge solutions that surpass customer expectations and derail competitors' plans (Roberts & Grover, 2019). According to Inman, et al. (2018), Routroy, Potdar and Shankar (2022), agility helps companies be competitive and thrive in environments where change is continuous and unanticipated. Existing literature has highlighted the role of information technology as an enabler in agile manufacturing (e.g. Jacobs, et al., 2018; Tallon & Pinsonneault, 2018; Chakravarty, Grewal & Sambamurthy, 2020; Gunasekaran, et al., 2018). In their recent studies, Lee (2022) and Gunasekaran, et al. (2018) suggested that agile manufacturing is inextricably related to technologies that can share information effectively and efficiently, enabling organizations to improve dynamic sensing and speed. This implies that

technologies and information-sharing in particular are crucial for the achievement of organizational agility.

Oyedijo (2019) has identified and justified four enablers of agility: organization, people, technology and planning. Likewise, Dubey and Gunasekaran (2022) validated six constructs: technologies, employee empowerment, customer focus, supplier relationships, a flexible manufacturing system and organizational culture. Zhang (2018), Dubey and Gunasekaran (2022) have noted that market turbulence is generally perceived as the driving force for organizational agility. Yet considering that the intensity of market turbulence differs across companies and industries, Nijssen and Paauwe (2019), Trinh-Phuong, Molla and Peszynski, (2019) have asserted that the level of required agility between firms will therefore be context-specific.

2.4.5 Competitive Intensity

The scholarly work of Besio and Pronzini (2018) and Blackhurst, Dunn and Craighead (2018) brought to the forefront the important role of environment and its effect on the design and work of organizations. Extending the systems theory, they proposed that organizational effectiveness is influenced by the degree of fit between an organization's structure and processes and its environment. Jones and Linderman (2021) have supported this view by stating that in a dynamic environment, the existing structures and processes may no longer be suitable and organizational performance may suffer; thus in order to remain competitive, organizations are forced to change to achieve the necessary level of fit to enhance their performance.

At the center of firms' industry environment is the concept of competitive intensity defined by Barnett's (2018) as the "effect that an organization has on other's survival, regardless of the particular tactics or strategies involved"**.** Tsai & Hsu, 2019 offers a related definition by describing competitive intensity as a situation in which the degree of competition depends on competitor behavior, resources, and the ability to differentiate offerings. The possibility of a moderating effect of competitive intensity is consistent

with a long tradition of support for the theory that environment moderates the effectiveness of organizational characteristics (Martin & Javalgi, 2016).

Tsai and Hsu (2019) have argued that the results of a firm's behavior are heavily contingent on the actions taken by its rivals; under conditions of high competition, managers usually experience great difficulties in choosing appropriate strategies and plans to respond to their competitors' actions; thus, even when managers opt for a strategy that is highly suitable to their resources and capabilities, unexpected competitive actions, such as aggressive pricing, advertising, and distribution strategies, may undermine a firm's performance strategy. According to Jones and Linderman (2021), each element of process management can help to achieve gains in efficiency, but the magnitude of these gains is contingent on the environment; in highly competitive environments, it is more difficult to achieve competitive priorities of cost, quality, delivery, flexibility, innovation, and service. This implies that, when operating in a highly competitive environment, organizations have to implement management initiatives that are going to result in greater productivity. Chan et al. (2019) have demonstrated that competitive intensity also moderates the performance implications of a customer-oriented strategy, namely customer cooperation; this clearly underscores the strategic importance for firms to cooperate with their customers closely as competition increases. Tsai and Hsu (2019) posit that, in the absence of competition, an organization with a high level of cross-functional collaboration is more likely to achieve higher performance in product innovation.

Anning-Dorson (2016) have established that the relationship between customer responsiveness components (of customization and customer involvement), and financial performance is dampened by intense competition. Murray et al. (2018), on the other hand, have argued for the positive moderating effect of competitive intensity on the relationship between customer-responsive strategies and firm performance; they have asserted that, firms operating in a more competitive market are likely to enjoy higher performance compared with those operating in a less competitive market if they can cope with customer requirements effectively. The indicators of a highly competitive

environment as outlined by Tsai and Hsu (2019) are; a large number of similar firms, scarcity of resources for creating a distinctive advantage, the lack of potential opportunities for growth and a high degree of uncertainty (instability) in rival firms' strategic commitments and competitive actions. Ceptureanu (2016) framework of competitive intensity, on the other hand, consists of market share distribution among competitors, rate of innovation imitation by competitors, intensity of competitive moves within an industry and the intensity of price wars.

2.4.6 Competitive Advantage (CA)

Although the literature in the field of strategic management has extensively identified the sources or determinants of competitive advantage, it does not provide a unified definition of competitive advantage (Sigalas and Pekka Economou, 2020)**.** Sukati et al. (2018) argues that competitive advantage is an unobservable construct and therefore inherently complicated**.** Grupe and Rose (2018) and Piatkowski (2019) have highlighted that the term competitive advantage does not have a uniform definition mainly because the theory of competitiveness is constantly developing.

Accordingly, existing literature reveals that there are multiple meanings of competitive advantage, and that there is hardly an agreement on a single conceptually clear definition; According to Amini et al. (2019), a firm has a sustained competitive advantage when it implements a unique value creating strategy which current and potential competitors are unable to duplicate. Porter (2018) defines competitive advantage as the productivity growth that is reflected in either lower costs or differentiated products that charge premium prices. Santos-Vijande, López-Sánchez and Trespalacios (2019) describes competitive advantage as the degree to which a firm exploits opportunities and neutralizes threats**.** According to Gutterman (2018) and Hill and Jones (2019), generic distinctive competencies – comprising of innovation and customer responsiveness - helps a firm build competitive advantage, either by differentiating a firm's products or by lowering the cost structure. Celep, Zerenler and Sahin (2020) defines competitive advantage as the sum of definite differences among

firms which gives some superiority over others. Celep, Zerenler and Sahin definition effectively sums up the fore stated perspectives on competitive advantage, and thus represents the meaning of CA as applied in this study.

In concert with the many definitions of competitive advantage, there is equally a rich literature on how CA ought to be measured. In Kiel, Smith and Ubbels' (2021) perspective, the choice of performance measurement indicators for competitive advantage should be guided by the variables under study as well as the nature of the industry under study**.** López-Nicolás & Meroño-Cerdán (2018) have intimated that a comprehensive view of firm's competitive performance considers not only financial perspective but also other factors which allow for monitoring of value creation. This view is supported by Rahman and Ramli (2021) who posits that the indicators for CA falls into two main streams; financial and non-financial performance measures. In measuring firm level competitiveness, profit growth rate (Li & Liu, 2021; Santos-Vijande, López-Sánchez & Trespalacios, 2019; Sachitra, 2017), reduction in operating costs (Farole, Reis & Wagle, 2017; Kortelainen & Karkkainen, 2018; Jell, 2019) market share growth (Allred et al., 2018; Wang, Lin & Chu, 2018), net income and returns on assets (Du Toit, Ortmann & Ramroop, 2017) have often been used as financial performance indicators of competitive advantage. In measuring non-financial outcomes, researchers tend to focus on indicators such as employee and customer satisfaction (López-Nicolás & Meroño-Cerdán, 2018), employees' growth (Rahman & Ramli, 2021), balanced scorecard (Kozena and Chladek, 2019), benchmarking (Attiany, 2021), and the rate of new product development (López-Nicolás & Meroño-Cerdán, 2018).

For this study, competitive advantage will be measured along the dimensions of sales turnover, market share growth and profit growth. This decision is based on Kiel, Smith and Ubbels' (2021) recommendations that the choice of performance measures for competitive advantage ought to be guided, partly, by the nature of variables under study. It is also based on the fact that the three indicators are highly quantifiable and therefore easy to operationalize in a study. Key variables in this study includes knowledge management, managerial networking, innovation and customer responsiveness;

reviewed literature implies that a combination of knowledge management (particularly, the flow of knowledge on quality improvements), manufacturing innovative products, managerial networks with key customers, and a high degree of customer responsiveness improves competitive advantage by increasing sales volumes (turnover) ((Díaz-Garrido, Martín-Peña & Sánchez-López, 2018; Laforet, 2020); that effective flow of knowledge – on quality improvements and operational efficiency for lower prices - combined with innovative products increases a firm's market share (Boksberger & Melsen, 2018); that a combination of knowledge management, innovative products, managerial networking and customer responsiveness increases sales turnover and firm market share while lowering operational costs, thereby leading to superior profit growth (Hill & Jones, 2019; Hanaysha, Ghani and Hilman, 2022).

2.5 Empirical Review

Numerous empirical works have explored the relationship between knowledge management practices and competitive advantage in firms, with varied findings being arrived at. Thakur and Sinha's (2020) investigated the impact of knowledge management practices in Indian firms and found that such practices led to revenue growth, improved competitive advantage and employee development. Zhou and Li's (2019) findings points to the following characteristics as pertinent to the utilization of knowledge within the firm in creation of value; knowledge transferability, capacity for aggregation (recipient's ability to add new knowledge to existing knowledge) and appropriability (ability of an information resource owner to receive a return equal to the value created by that resource). Studies by Daghfous, Ahmad and Angell (2020) indicates that the successful implementation of a KM program initially requires a knowledge audit to understand and map out individual staff competencies, process flows, information technology and explicit knowledge content within an organization. Hau, et al. (2020) findings have revealed that organizational rewards have a negative effect on employees' tacit knowledge sharing intentions but a positive influence on their explicit knowledge sharing intentions. Chang and Chuang (2018) have confirmed that reciprocity, enjoyment, and social capital contributes significantly to enhancing

employees' tacit and explicit knowledge sharing intentions; additionally, these factors have more positive effects on tacit than on explicit knowledge sharing intentions.

Considerable research effort has similarly been expended in unraveling the link between managerial networking and competitive advantage in firms. Sheng, Zhou, & Li, (2018) conducted a study on the effects of business and political ties on firm performance in China and concluded that business ties have a strong effect on performance than political ties. Findings by Acquaah (2018) have revealed that business and political ties have a completely different moderating effects on the relationship between differentiation strategy, low-cost strategy and firm performance; their study has shown that business ties have a positive influence on the differentiation strategy but a negative effect on low-cost strategy. In contrast, political ties are revealed to have a negative effect on the differentiation strategy. Results of an empirical study by Schoonjans, Van Cauwenberge & Vander Bauwhede (2020) suggests that dynamic networking capabilities enables organizations to minimize the risks associated with new market entry decisions. Bucktowar, Kocak & Padachi (2022) have found that the strength of business ties enhances the relationship between market intelligence generation and market responsiveness, and that the strength of political ties reduces the relationship between market intelligence dissemination and market responsiveness.

The link between innovation and firm's competitiveness has also been accorded a vast attention in empirical studies. Findings by Minguela, Fernández & Fossas (2021) implies that firms that cooperate technologically with suppliers have a greater propensity for product innovation and more specifically, for radical innovations; and that the larger the firm size, the greater the propensity for product innovations. Ranaweera (2021) however warns about the tendency among most firms of focusing only on product development. According to Ranaweera, (2021), product development is only one aspect of the innovation phenomena; thus, firms need not only improve their product innovation but at the same time should focus more on service, process and market innovation.

The role of research and development (RR&D) in enhancing firm's innovativeness and competitiveness has been investigated in numerous studies. Xiaobo and Sivalogathasan, (2020) for instance, found that innovation performance is heavily depended on research efforts, and that intellectual capital is a vital asset of an organization in a knowledge-based economy. Brettel, et al. (2018) have shown that the relationships between various facets of cross-functional collaborations and innovation performance can be highly complex. Their findings demonstrated that whereas a positive impact exists in collaborations between R&D and marketing functions, the impact is highly depended on the product development stage. In addition to demonstrating the importance of internal collaborations in innovation performance, Koufteros, Rawski & Rupak (2017), have further shown the importance of external integration with customers and suppliers; they concluded that, such network partners provides access to information, knowledge, and unique and complementary resources that are otherwise unavailable to the firm.

Studies on customer responsiveness and competitive advantage have also generated a wide range of findings. In a research report titled "Theoretical versus actual product variety: how much customization do customers really demand?", Stäblein, Holweg & Miemczyk (2018) reported a general trend towards increased customization and product variety across numerous industries. They concluded that the trend is driven by the growing importance of providing customer choice in competitive settings, where offering product variety is supposed to create a competitive advantage. Daaboul, et al. (2018), on the other hand, have found that product variety increases the coordination effort, reduces productivity, and thus increases operational costs. A study by Yang, Kincade and Chen-Yu (2022) has identified four critical points of apparel customization - design, feature, fit and fabrication. Their findings suggests that the success and the capability of apparel customization will depend on how effectively a company can manage the defined points of customization.

Findings by Narsalay, Sen and Mathur (2016) have shown that a positive relationship exists between organizational flexibility and firm's performance in terms of customer responsiveness. Narsalay, Sen and Mathur have further reported that flexibility is

hampered by resistant workforce practices and lack of consistent, multichannel customer information in firms. Vecchiato (2022) and Najrani (2016) have shown that increased organizational agility increases the ability to respond proactively to unexpected environmental changes; agility therefore has a greater impact on organizational performance in more volatile markets. Findings by Appelbaum, et al. (2017) have however indicated that, commitment to continuous transformation and agile strategies implies changes at all levels of the organization from its structure, through its leadership and decision-making dynamics, down to the skills and interpersonal relationships of the individuals implementing the agile mission.

2.6 Critique of Existing Literature

Several observations and challenges can be deduced in regard to literature reviewed for this study. To begin with, building theoretical framework for this study presented two challenges; first, was the challenge of finding theories which adequately addressed the link between independent and dependent variables of the study; Open innovation theory for instance, was meant to capture the link between innovation and firm's competitiveness, the theory however focuses on external conditions which trigger innovation, while providing a limited exploration on internal conditions (Cantner, Joel & Schmidt, 2018). Customer dominant logic (CDL) was incorporated in order to aid in explaining the relationship between customer responsiveness and firm's competitiveness. The theory however emphasizes a focus on invisible and mental life of the customer, without providing concrete guidelines on how such an end can be achieved (Anker, et al., 2021). Regardless of its resourcefulness in explaining the link between knowledge management and competitive advantage, the knowledge based view (KBV) of the firm has been faulted for lacking a "knowledge" definition that allows scholars to generate operationalizable models of the firm and its performance (Witherspoon, et al., 2020). The second challenge was that of choosing the most appropriate among interrelated and seemingly overlapping theories; For instance, the Resource Based Theory (Barney, Ketchen & Wright, 2018) is almost indistinguishable from Market-Based View (Peteraf & Bergen, 2017), Capability-Based View (Grant,

2020) and Relational View (Dyer and Singh, 2019). Consequently, the decision to include Resource Based Theory (RBT) over competing theories was informed by the fact that, RBT captures a considerably wider scope of elements which aids in enriching and giving depth to this study.

It was also evident that the bulk of literature which addressed the absence of competitiveness in Kenya's garments' sector and elsewhere in Africa (Majtenyi, 2017; Field, 2022; Abimbola, 2019; Chigbo, 2022 & Phelps, Stillwell &Wanjiru, 2016) tends to focus more on imported used clothing at the expense of other factors which may be at play. To the casual observer, there seems to be an intuitive relationship; cheap imported used clothing entering the market undercuts local production of garments which leads to a clothing manufacturing decline (Majtenyi, 2017). Whereas the decline of African clothing industries may be an inevitable consequence of economic liberalization brought about by the vector of used clothing imports, this simplistic association needs to be questioned; in 2018 for instance, McCormick et al. found that small and medium clothing manufacturers faced low overall demand for clothing in Nairobi. This was due to declining urban incomes, linked to the structural adjustment programs that formed part of the economic liberalization process (Brooks & Simon, 2019). According to Myers (2018), the conditions of urban poverty and deprivation in African cities in the 1980s and 1990s have been well documented. The weak purchasing power of African consumers persists today and household expenditure remains low in both urban and rural contexts (Harrison, 2020). Thus, whereas it cannot be disputed that African clothing industries in general declined significantly following liberalization, or that used-clothing imports was a substantial factor in that demise, it needs to be pointed out that this demise may be an outcome of a broader pattern of economic liberalization.

Additionally, there was the challenge of finding a description of competitive advantage which helps operationalize the concept in this study. For instance, the most recurrent description of competitive advantage proposes that the concept be measured in terms of differentiation or cost leadership (Liu, 2017; Srivastava, Franklin and Martinette, 2020). In this case, differentiation strategy means firm's specialization in terms of added value

and quality, whereas, cost leadership means significant cost disadvantage for competitors trying to imitate products of successful firm. The challenge with the aforementioned definition is that whereas managers can easily provide proof of cost leadership at work (by demonstrating that lowering product prices resulted in bigger market share and profits), the proof that differentiation is at work on the other hand, requires a more cautious approach. This is so, for two reasons; firstly the proof that a firm has higher added value and quality over rivals is a highly subjective matter and is best decided by consumers rather than an entities stakeholders and managers. Secondly, because differentiation does not always have to result in easily quantifiable indicators such as higher sales and bigger market share in order for it to generate competitive advantage. Other descriptions of competitive advantage such as Peters (2017) "excellence in execution" and Barney, Ketchen and Wright's (2018) "the presence of resources and capabilities that have four attributes: valuable, rare, imperfectly imitable and not substitutable" are also unquantifiable and highly subjective, and thus, operationalizing them in a study requires a careful approach as well.

2.7 Research Gaps

A review of literature indicated that, empirical studies have been carried out on determinants of competitive advantage in the garment sector. A large proportion of such studies have, however, been conducted in Asia (Li & Zhou, 2017; Feng, Sun & Zhang, 2017; Joarder, Hossain & Hakim, 2017; McCann, 2018; Vanathi & Swamynathan, 2021), some parts of Central America (Frederick & Gereffi, 2018) and Europe (Yayla, Yildiz & Ozbek, 2019). This highlighted the need for similar studies in diverse contexts - for instance in African countries such as Kenya - in order to mitigate perceptions of bias and enhance reliability of findings in this area.

Further, divergent views exists in relation to what constitutes major determinants of competitive advantage in the garment industry; some researchers, for instance, have argued for demand conditions, firm structure and strategy (Samarasinghe, Ariadurai & Perera, 2022; Ghosh, Kumuthadevi & Jublee, 2016) whereas others have emphasized the

criticality of unique resources and capabilities (Chunhong, 2017; Cao, Berkeley and Finlay, 2021) and collaborative supply networks (MacCarthy & Jayarathne, 2019). Consequently, there was a need to expand the discussion in this research area by adding different perspectives, such as a focus on core competencies relating to internal capabilities of organizations as postulated in Prahalad and Hamel (2018), Hill and Jones (2019), and Haibin (2019) frameworks; their framework proposes; knowledge management, managerial networking, innovation and customer responsiveness.

It was further noted that, many studies conducted on Kenya's garment sector tend to focus on SMEs (Akoten & Otsuka, 2021; Ndalira, Ngugi & Chepkulei, 2020) and large producers in the Export Processing Zones – EPZ (Rolfe & Woodward, 2019; Kindiki, 2018, Chemengich, 2017) which are mainly foreign owned, exclusively meant for export markets, and highly governed by cross border regulations and global trade laws. The implications of this were that an important niche in Kenya's garment industry – the large scale garment companies which are mainly locally owned, catering for both local and foreign markets, and operateing under Kenyan laws – have generally been overlooked by researchers. In this view, more studies were required to help highlight the challenges, opportunities and competitive dynamics within this niche in Kenya's garment sector.

2.8 Summary

Knowledge management practices in relation to knowledge audits, knowledge sharing culture and organizational rewards for knowledge sharing; Managerial networking in relation to managerial ties with government agencies, ties with financial institutions and ties with business entities; Innovation in regard to R&D intensity, cross-functional collaborations and new product introductions; Customer responsiveness in regard to product customization, organizational flexibility and organizational agility; these variables were investigated to determine their influence on competitive advantage in medium and large garment companies in Kenya. Further, Competitive intensity was explored in relation to its moderating effect on the relationship between the dependent and independent variables.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the instruments and methods that were used in carrying out the study. The chapter consists of the following sections: research design, target population, sample size and sampling technique, data collection instruments and procedure, pilot study, and data processing and analysis.

3.2 Research Design

Research design, as defined by Bryman and Bell (2018), is a as a framework for data collection and analysis with the aim of answering a research question. Juni and Afiah (2021) defines research design as a set of logical procedures that when followed enables one to obtain evidence to determine the degree to which a theoretical hypothesis or set of hypotheses are correct. Research theory argues that all research undertakings are based on one of two distinct philosophies; the first is positivism, which generally emphasizes a scientific approach to research, characterized by highly organized procedures and measurable data with the aim of achieving the highest degree of objective reality (Sarantakos, 2019; Walliman, 2022). Interpretivism, the second research philosophy, is founded on the believe that researchers are subjective entities who influence and also get influenced by the phenomena and subjects under study; in this regard, the reality as presented in research findings, is always multiple and relative (Ormston et al., 2021; Goldkuhl, 2019). Based on the foregoing, this study was based on the positivism view. The researcher, however, acknowledges the difficulty of avoiding interpretivism in a partly qualitative study such as this.

For this study, a cross-sectional survey design was adopted, using both qualitative and quantitative approaches. A cross-sectional survey design, as per Zikmund, (2017) describes a single group or compares two or more groups of subjects with respect to a

particular characteristic or characteristics at one point in time. According to Sedgwick (2021), cross-sectional surveys are based on observations that take place in different groups at one time. This means there172 is no experimental procedure, and therefore no variables are manipulated by the researcher. The adoption of a cross-sectional survey design allowed for the use of a representative sample whose findings were used to make generalizations about the population. This enabled the researcher to minimize costs and save time (Kothari, 2019). The descriptive and explanatory nature of this design further, helped the researcher understand the effect of interactive relationship between the dependent and independent variables. Additionally the design facilitated the collection of a large amount of data from many subjects (garment companies) which were dispersed in various locations in Kenya (Sekaran & Bougie, 2017).

Combining quantitative and qualitative approaches enabled the study to benefits from advantages offered by both approaches. Qualitative approach, as per Rossman and Rallis (2018) and Creswell (2019) provides in-depth information on the problem under study, based on personal experiences and opinions of the respondents. Using qualitative approach in this study thus, allowed the researcher explore and better understand the complexity of the phenomenon under investigation (Williams, 2018). Quantitative approach, on the other hand, involves the collection of data that is typically numeric. Such data is subjected to statistical treatment in order to support or refute alternate knowledge claims (Williams, 2018). Quantitative approach entailed application of descriptive statistics and correlational tests in this study. Descriptive statistics aided in generating numerical values for data collected from respondents through qualitative approach. Correlational tests aided in establishing if a conclusive cause and effect relationship existed between the independent variables and the dependent variable (MacDonald & Headlam, 2022).

3.3 Target Population

Target population refers to an entire group of people or objects that are of interest in a study and to which the researcher wishes to generalize a study’s findings (Patel, 2018).

The target population for this study comprised of 170 medium and large garment companies operating in, and registered as Kenyan firms. The preference for this scope was firstly based on its reliability, considering that population's parameters and the firms' addresses are well documented; In the year 2022, the Ministry of Industrialization, Trade and Cooperatives (MITC), World Bank Group and Global Development Solutions jointly commissioned a survey on "Kenya Apparel and Textile Industry; Diagnosis, Strategy and Action Plan", which extensively covered the medium and large garment companies in Kenya. Besides documenting the study's sample, the survey had gone further and compiled a list of the population (all the registered medium and large garment companies in Kenya). The choice of this study's population was further motivated by a literature review which indicated that large garment firms outside EPZ are under-studied, despite possessing the potential to contribute actively to Kenya's economic growth (Rael & Beatrice, 2019; Onyango & Ikiara, 2018). The unit of analysis for this study were the medium and large garment companies whereas the unit of observation were the top management in the garment companies.

3.4 Sampling Frame

A sampling frame is a list of subjects constituting a population from which a sample is drawn (MacDonald and Headlam, 2022). Using the introduction letter issued by ETLM department, the researcher was able to obtain a list of the medium and large garment firms in Kenya, along with their physical locations from the MITC's Business Sector Program Support (BSPS) office. The researcher further confirmed and updated the list with the aid of Kenya Association of Manufacturers' (KAM) online directory, access to websites' for garment companies with an online presence, and a scrutiny of numerous online lists and directories.

3.5 Sample Size and Sampling Technique

A sample size refers to the number of items or subjects which are selected from a target population to take part in a study (Kothari, 2019). There are varying opinions in regard to what sample size is appropriate in social sciences. Most scholars argue that the concept of saturation is the most important factor to think about when making sample size decisions, particularly, in qualitative research (Mason, 2017). Saturation refers to the point at which the data collection process no longer offers any new or relevant data (Dworkin, 2019). According to Ramroop (2020), a sample drawn from 15% of the total population is highly reliable for multivariate analysis. Schönbrodt and Perugini, (2020), argues that sample size decisions are depended on the size of the true correlation, the accuracy that is required, and the confidence that the researcher desires in making decision. In this case, a reasonable trade-off between accuracy and confidence is achieved when sample size approaches 250. The sample size for this study was scientifically computed using Bartlett *et al.,* (2001) and Francis *et al.,* (2010) formula. This formula factors in critical sample size considerations which are highlighted by Schönbrodt and Perugini, (2020).

$$\frac{\frac{z^2 \times p(1-p)}{e^2}}{1+\left(\frac{z^2 \times p(1-p)}{e^2 N}\right)}$$

Statistic Description

N= The Population size……..170

E=Margin of error……..0.05

Z= at 95% Confidence level, Z score……1.96

P= Expected proportion of companies likely to participate in the study (Recommended – 50%= 0.5)

$$= \frac{\frac{1.96^2 x\ 0.5(1-0.5)}{0.05^2}}{1 + \left(\frac{1.96^2 x\ 0.5(1-0.5)}{0.05^2 \times 170}\right)}$$

The application of the above formula generated a sample size of 83 from a population of 170 garment enterprises.

Sampling, according to Kothari (2019) is the process of selecting a representative number of items out of a target population. A well selected sample accurately represents the attributes of the population from which it is drawn. For this study, a three stage sampling technique was applied to determine how the sample would be distributed geographically, it also aided in extracting the actual identities of the firms that were to take part in the study. In the first stage, firms were stratified according to total number per county. The second stage entailed the computation of weighted proportions to determine the number of firms that were to take part from each county. In the third stage, simple random sampling (SRS) technique was applied to determine the actual identity of companies that were to participate in the survey. Simple Random Sampling, according to Christensen, Johnson and Turner (2018) aids in generating a random sample whose characteristics can be used to make generalizations about the larger population.

Table: 3.1: Sample Size Distribution

S/no.	County	N (No. of medium and large garment companies in each county)	Sample Proportion
1	Nairobi County	99	99/170*83=48
2	Mombasa County	31	31/170*83=15
3	Nakuru County	13	13/170*83=6
4	Kiambu County	11	11/170*83=5
5	Uasin Gishu County	9	9/170*83=4
6	Kisumu County	4	4/170*83=2
7	Laikipia County	1	1/170*83=1
8	Marsabit County	1	1/170*83=1
9	Kericho County	1	1/170*83=1
	Total	**170**	**83**

3.6 Data Collection Instruments

Primary data comprised of firsthand information obtained from respondents using closed ended questionnaires. Compared to other instruments, questionnaires allowed for the use of a large sample which generates reliable results as postulated by Zohrabi (2020). The use of questionnaires also gave respondents' adequate time to give well thought out information in the form of facts and personal opinions. Questionnaires further reduces bias error which is common in face to face interviews (Phellas, Bloch & Seale, 2018). Additionally, the instrument ensured uniformity in the responses obtained and easiness in coding and analyzing of information. The instrument consisted of seven sections; questions on the demographic characteristics of the firms, questions on the dependent variable (competitive advantage), questions on each of the four independent variables (Knowledge Management, Managerial Networking, Innovation, Customer Responsiveness) as well as questions on the moderating variable (competitive intensity).

Secondary data on financial performance and competitive dynamics in Kenya's garment sector was gathered through desk review of published reports (e.g. KAM and Ministry of industrialization reports). Financial data included percentage profit growth, market share growth and annual turn-over for the period between 2020 and 2018. Manufacturing and apparel trade journals, newspaper commentaries, speeches and interviews were reviewed to extract data on new product announcements, R&D projects, firms' relations and joint projects with government agencies, and the overall degree of competitive intensity within the industry.

3.7 Data Collection Procedure

With the aid of the sampling frame, respondents (firms) were identified and contacted for permission to involve them in the study. Questionnaires were delivered to respondents mainly by hand. This mode, enabled the enumerators to make clarifications on questions where needed, in addition to ensuring that each questionnaire was successfully availed to all relevant respondents (sections) within the firms under study. The introduction letter from ETLM department of JKUAT was key in obtaining a high response rate in that, it instilled trust in respondents and confidence in enumerators.

3.8 Pilot Study

Pilot studies are preparatory studies designed to test the performance characteristics and capabilities of study designs, measures, procedures and data collection instruments that are under consideration for use in a subsequent, often larger, study (Moore, et al., 2018). The pilot test aided in ascertaining the validity and reliability of the questionnaire as argued by (Dikko, 2016). It also aided in the identification and modification of ambiguous questions that were likely to generate un-interpretable responses. The questionnaire was piloted among 20 respondents (firms). According to Isaac and Michael (2016), Hill (2019), and Johanson and Brooks (2017), 10 to 30 participants from a population of interest is a reasonable minimum for a pilot study where the purpose is a preliminary survey and a pretest of the research instrument. In addition to

confirming the suitability of this range through their own studies, Isaac, Michael, Hill, Johanson and Brooks further observed that this is also the range commonly recommended in much of the existing literature.

3.8.1 Reliability Tests

A test is regarded as reliable when it can be used by different researchers under stable conditions, with consistent and non-varying results being attained (De Bruin, 2017). Reliability thus, reflects consistency and reliability with which an instrument measures particular phenomena (Lakshmi & Mohideen, 2020). The reliability of the questionnaire for this study was verified by computing Cronbach's alpha coefficients values for inter-correlations among items in the constructs. The aim was to determine the internal consistency of the measures. The overall reliability scores for the six constructs under study was as indicated in table 3.2.

Table 3.2: Summary **of Reliability Results**

Variables	Dimensions	Alpha Reliability
Knowledge Management	9	0.731
Managerial Networking	9	0.771
Innovation	9	0.827
Customer Responsiveness	9	0.829
Competitive Intensity	3	0.788
Competitive Advantage	3	0.758

Cronbach's Alpha coefficient values for constructs under study as indicated in table 4.2 revealed that Knowledge management had a coefficient of (0.731), Managerial networking (0.771), Innovation (0.827), Customer responsiveness (0.829), Competitive intensity (0.788) and Competitive advantage (0.758). According to Nunnally and Bernstein (2022), the minimally acceptable reliability score for preliminary research should be in the range of 0.5 to 0.7. Gliem and Gliem (2017) proposes a coefficient minimum of 0.7. Similarly, George and Mallery (2017) and Field et al., (2019) have

asserted that a Cronbach alpha score of 0.7 and above implies a relatively good measure of reliability. All the alpha coefficient scores of the pilot study ranged between 0.731 and 0.829 as shown in Table 4.2. This was above the recommended threshold, and thus an indication that the research instrument was reliable.

3.8.2 Validity Tests

Validity refers to the extent to which an instrument measures what it is supposed to measure (Yilmaz, 2020). Validity is concerned with the appropriateness, meaningfulness, and usefulness of inferences made by the researcher on the basis of the data collected (Wallen & Fraenkel, 2022). Prior to data collection, the questionnaire was tested for content and construct validity. Content validity refers to the extent to which the content of an instrument (questions, statements and indicators) adequately represents the phenomena being studied (Matthews & Ross, 2021). Construct validity, on the other hand, examines indicators and statements in a particular instrument to determine the specific items they are intended to measure (Christensen, Johnson & Turner, 2018). To enhance content validity, experts were consulted during questionnaire formulation stage with the aim of ensuring that the measurement items were adequate and derived from the desired content domain. To test for construct validity, the questionnaire was pre-tested with a sample of 20 respondents with the aim of ensuring that the interrelationships between the questionnaire items and the phenomena they were supposed to measure was accurate. Corrections and modifications were subsequently implemented in the final instrument.

3.9 Data Analysis and Presentation

The process of data analysis begins after the data has been collected. During the analysis stage, several interrelated procedures are performed to summarize and rearrange data. The raw data collected from the field was transformed into information that addressed the research objectives. Conversion of raw data into information requires that the data be edited and coded so that the data may be transferred to a computer ready for computer

statistical software based analysis (Zikmund et al., 2019). Generally, moderated multiple regression (MMR) was the ultimate analysis used for this study. It was used in predicting the values of the dependent variable given the values of the four independent variables with a moderating variable as the fifth.

The computations and interpretation required by multiple regressions, usually are relatively complicated and therefore IBM Statistical Package for the Social Sciences. (SPSS) version 25.0 for Windows 10 was used as an analytical tool for the quantitative data that was generated through this study. To test the hypotheses for this study Chi-square test of independence was used to test whether any two variables were associated or were independent with each other. Z test was also used to investigate and test the hypotheses with the values of R (coefficient of correlation) and R-square (coefficient of determination) computed to determine the magnitude and direction of the variable relationships.

3.9.3 Analytical Model

In order to realize objectives, I - V of this study as is stated in section 1.3, the following multiple regression models was used for analysis of the relationship. i) $Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$

ii) $Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_{1m} X_1 M + \beta_{2m} X_2 M + \beta_{3m} X_3 M + \beta_{4m} X_4 M + e$

Where:-

Y_1 = Dependent Variable: Competitive advantage

β_0 = Constant

β_0 = Regression coefficient for Xi (i =1, 2, 3)

X_1 = Knowledge Management (X_1) **(**knowledge audits, knowledge sharing culture, organizational rewards for knowledge sharing)

X_2 = Managerial Networking (X_2) (ties with government agencies, ties with financial institutions, ties with business entities)

X_3 = Innovation (X_3) (R&D intensity, cross-functional collaborations, new product introductions**)**

X_4 = Customer Responsiveness (X_4) (intensity of product customization, extent of organizational flexibility, extent of organizational agility)

M = Competitive intensity (Moderator)

X_iM = Interaction term of the moderating variable with each of the independent variables (X_1, X_2, X_3, X_4)

e = Error term

The coefficient of determination (R2) was computed and used to test multi-collinearity between the variables. F statistics was used to test the significance of the variable weights and appropriate alphas computed for assessment at the selected significance level (5%). The measures that were used in this study were derived from several criterion, which were conceptualized and used in previous empirical studies on knowledge management, managerial networking, innovation, customer responsiveness, competitive intensity and competitive advantage. A copy of the survey questionnaire is provided under the appendices (Appendix II) which shows the issues around which data was collected and to help in the analyses that was done in this study. A five-point likert scale were used as measurement scales to collect data on the six variables that were of interest in the study.

3.9.4 Test of Hypotheses

The relationship between each of the four independent variables (knowledge management, managerial networking, innovation, customer responsiveness) and

competitive advantage, as well as the moderating influence of competitive intensity on the aforementioned relationships in medium and large garment companies in Kenya was hypothesized and tested as shown in table 3.3

Table 3.3: Study hypothesis

Objective	Hypothesis	Type of Analysis	Interpretation
To determine the influence of knowledge management on competitive advantage in medium and large garment companies in Kenya	Ho_1: Knowledge management (X_1) does not have a significant influence on competitive advantage in medium and large garment companies in Kenya	Pearson correlation Linear regression analysis	If p value < 0.05 reject null hypothesis if p value is > 0.05 fail to reject the null hypothesis.
To determine the influence of managerial networking on competitive advantage in medium and large garment companies in Kenya	Ho_2: Managerial networking (X_2) does not have a significant influence on competitive advantage in medium and large garment companies in Kenya	Pearson correlation Linear regression analysis	If p value < 0.05 reject null hypothesis if p value is > 0.05 fail to reject the null hypothesis.
To determine the influence of innovation on competitive advantage in medium and large garment companies in Kenya	Ho_3: Innovation (X_3) does not have a significant influence on competitive advantage in medium and large garment companies in Kenya	Pearson correlation Linear regression analysis	If p value < 0.05 reject null hypothesis if p value is > 0.05 fail to reject the null hypothesis.
To determine the influence of customer-responsiveness on competitive advantage in medium and large garment companies in Kenya	Ho_4: Customer-Responsiveness (X_4) does not have a significant influence on competitive advantage in medium and large garment companies in Kenya	Pearson correlation Linear regression analysis	If p value < 0.05 reject null hypothesis if p value is > 0.05 fail to reject the null hypothesis.
To determine the moderating influence of competitive intensity on the relationship between determinants and competitive advantage	Ho_5: Competitive intensity (X_5) does not have a moderating influence on the relationship between determinants and competitive advantage	Pearson correlation Moderated multiple regression analysis	If p value < 0.05 reject null hypothesis if p value is > 0.05 fail to reject the null hypothesis.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the findings of a survey study of medium and large garment companies in Kenya. The chapter covers the response rate, reliability analysis and confirms validity of the study constructs. The chapter, further, examines the demographic characteristics of the respondents, results of the statistical analysis and a test of hypothesis. It concludes with a broad discussion of the results and its linkage to theoretical framework and findings in other empirical studies.

4.2 Response Rate

Response rate, as per Morton, Bandara, Robinson and Carr (2019) is the total number of completed interviews in relation to the total number of participants with whom contact is made, or the number of all possible interviews. For this study, a total of 83 questionnaires were administered, out of which 72 were properly filled, returned and were therefore found suitable for analysis. This represented an overall response rate of 86.7% as shown in Table 4.1.

Table 4.1: Response Rate

Response	Frequency	Percentage
Received responses	72	86.7
Unreturned responses	11	13.3
Total	**83**	**100**

According to Bonevski, Magin, Horton, Foster and Girgis (2018), a response rate of 70% and above is adequate for analysis and reporting in survey studies. This view is supported by Fincham (2022) who argues for a minimum of 60% and Mugenda and Mugenda's (2008) recommended minimum of 50%. Based on the foregoing, the 86.7%

response rate that was attained in this study was above the recommended minimum and therefore, adequate for making inferences in regard to the characteristics of the population under study.

4.3 Firm Characteristics

The study began by establishing the vital characteristic of firms under study. On this basis, the study sought to determine the ratio of large firms to medium sized firms, ownership structure of the firms, number of years in operation, average product life-cycle and nature of products manufactured by the enterprises. The study also assessed the types of competitors encountered by the companies taking part in the study.

4.3.1 Size of the Firms

As shown in figure 4.1, the study found that 68% of the sampled firms were medium sized whereas 32% were large firms. This is in tandem with the structure of a normal economy where small and medium firms are generally known to outnumber large firms; in addition to having a relatively small capital requirements, small and medium firms are quicker in adapting to change and are better positioned to explore new ideas and strategies (Chang & Hughes, 2019). In a business environment such as the Kenya's garment industry which has operated under intense pressure of free trade for over two decades, a high degree of adaptability is critical for success and survival. Further, smaller companies often have a flexibility advantage, which allows them to change direction quickly when necessary (Bressler, 2019).

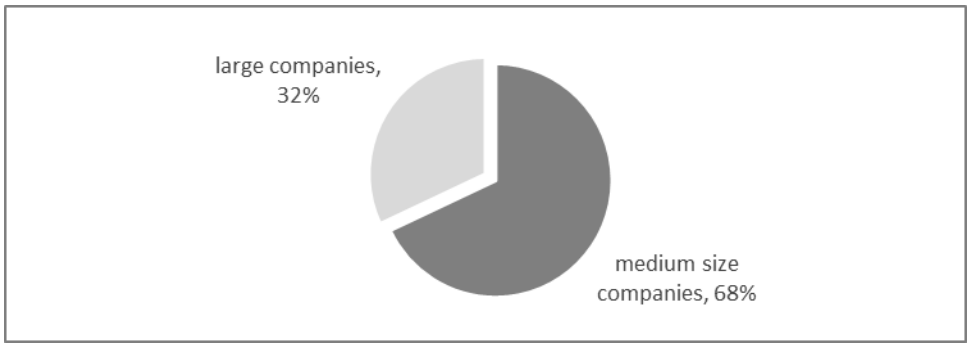

Figure 4.1: Size of the Firms

4.3.2 Ownership Structure

The bulk of this study sought to interrogate decisions that are made by managers in Kenya's garment firms in regard to superior performance. Gaining an overview of ownership structures therefore, offered a better understanding and appreciation of the nature and quality of decisions made by the firms, the parties involved in such decisions and the swiftness of decisions' implementation. As indicated in figure 4.2 the study found that, 9.7% of the participating companies were run as sole proprietorships, 31.9% as general partnerships, 36.1% as limited partnerships whereas, a further 22.2% operated as corporations.

In a sole proprietorship, a single individual runs an enterprise without the necessity of a formal organization. This structure provides no protection against liability to the owner (Permwanichagun, Kaenmanee, Naipinit & Sakolnakorn, 2021). A general partnership on the other hand, consists of two or more persons all of whom are jointly liable for all the liabilities of the partnership (Kazemian & Sanusi, 2022). Similarly, a limited partnership consists of two or more owners, but differs from general partnership in that it has one or more persons who are general partners and one or more limited partners. Whereas general partners are fully liable for the debts of the partnership, limited partners are not. The latter are however exempted from participating in management activities (Chen, Li, Shapiro & Zhang, 2021). A "corporation" defines a legal entity which is separate from its owners, with the characteristics of limited liability, centralization of

management, perpetual duration, and ease of transferability of ownership interests. The owners of a corporation are known as shareholders and individuals who manage its affairs are known as directors. Shareholders are not liable for the debts of the corporation (Calabrò, Torchia, Pukall & Mussolino, 2020).

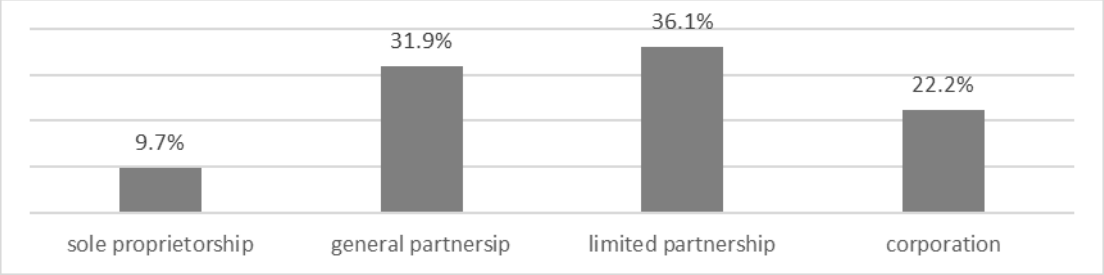

Figure 4.2: Ownership Structure

4.3.3 Number of Years in Operation

The research also sought to establish the number of years each garment firm had been in operation. According to results as shown in table 4.2, 67.3% of medium firms and 78.2% of large firms were formed over 21 years ago, with the number of new entrants sharply decreasing thereafter. These findings confirm those of Fukunishi (2017), World Bank (2018) and Chemengich (2020) which revealed that the Kenyan apparel sector has undergone a sustained decline since the phasing out of government protectionism and global quota systems in favor of liberalization in 1990s. Frederick and Gereffi (2018) have similarly noted that the Kenyan clothing manufacturers are struggling to stay afloat in the fierce competition of the free markets era.

Table 4.2: Number of Years in Operation

	Medium Companies	Large Companies
5-10	2	1
11-15	5	1
16-20	9	3
21-25	12	4
>25	21	14
Total	**49**	**23**

4.3.4 Nature of Products Manufactured By the Participating Companies

Results in Figure 4.3 indicate that cumulatively, 41.7% of garment companies specialized in school and industrial uniforms. 12.5% of the firms produced women wear whereas a similar proportion specialized in infant wear. Coincidentally, an additional 12.5% consisted of firms producing a variety of garments and firms specializing in accessory wear such as scarfs and caps.

Consistent with the foregoing results, findings by Fukunishi (2019) have shown that many garment firms in Kenya have changed their business line from consumer clothing to school and industrial uniforms, and promotional wear (e.g. T-shirts and polo shirts with company's logo). Uniforms and promotional wear, according to Fukunishi, are less likely to compete with imported garments, since they need to reflect the specific needs of customers. Mastamet-Mason's (2016) observes that, one of the reasons as to why the Kenyan garment industry stagnated after trade liberalization is because the local firms opted to evade competition by specializing in uniforms, as opposed to implementing measures that could enhance their competitive advantage.

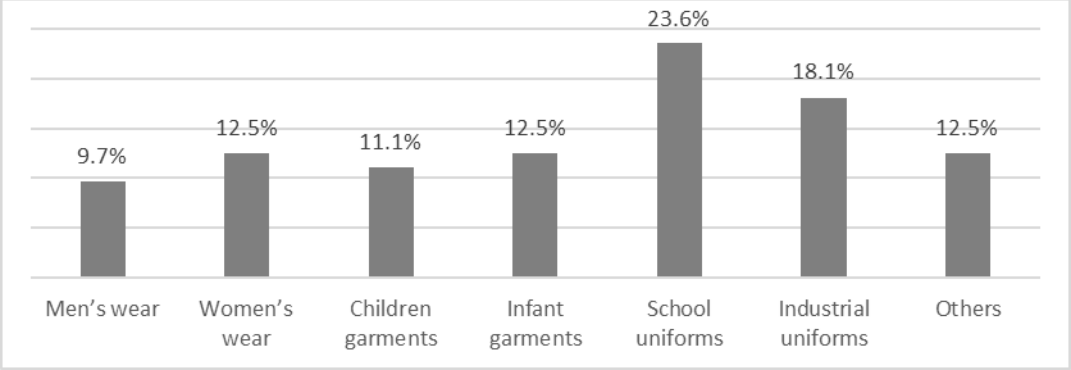

Figure 4.3: Nature of Products Manufactured by the Participating Companies

4.3.5 Average Product Life-Cycle

Results in Table 4.3 show that 4.2% of sampled firms produces fashion, 15.2% seasonal products and 76.4% basic products that last a year and more than two years. According to Nel and Chiromo (2019), innovative products have a limited life-cycle, generally ranging between three months to one year. They further argue that, functional products have an average life that exceeds two years. One can therefore conclude that the proportion of firms that focused on making innovative products was 19.4% (the first two categories) of the aggregate number of firms that participated in the study. According to Mastamet-mason, Ramatla and Wandaka, (2018), managing innovative products requires constant interaction between the organization and the customer. It is also evident that 43.1% of participants manufactures products that sell beyond two years after introduction.

Table 4.3: Average Product Life-Cycle

	Frequency	Percent
Up to 20 weeks (fashion-unpredictable product)	3	4.2
21 - 52 weeks (seasonal)	11	15.2
1 year - 2 years (basic product)	26	36.1
More than 2 years (basic product)	29	40.3
Products with varying lifecycles (hybrid)	3	4.2
Total	**72**	**100**

4.3.6 Major Competitors in the Industry

The respondents were asked to indicate their main competitor in the industry. As evident in Table 4.4, majority of firms (59.7%) cited foreign produced garments as their main competitor while 31.9% cited locally produced garments. The proportion of firms facing both local and foreign competition accounted for 8.3% of the total firms that were sampled.

Notably, the majority of firms that were not in the uniforms market cited foreign competition as their major competitor. This partly explains the close similarity between the percentage of firms that had not entered the uniforms market (58.3%) as shown in Figure 4.3**,** and the percentage (59.7%) which cited foreign competition as a key concern (Table 4.5). Studies by Fukunishi (2020) and (Otieno, 2019) have shown that foreign garments have not penetrated into the uniform market mainly because uniforms require a high degree of customization. This feature has allowed local garment firms to survive in the market by migrating to this specialty.

Table 4.4: Major Competitors in the Industry

	Frequency	Percent
No knowledge about major competitors	-	-
None	-	-
Locally produced garments	23	31.9
Foreign produced garments	43	59.7
Local and foreign garments	6	8.3
Total	**72**	**100**

4.4 Tests of Assumptions of the Study

It is paramount to validate the tests for assumptions of linear regression models so as to provide consistent estimates of parameters that are devoid of bias (Kothari, 2019). This study evaluated the assumptions by testing for normality, multicollinearity, heteroscedasticity, outliers and sampling adequacy test.

4.4.1 Test of Normality

Normality test is usually conducted to discover whether the data set follows the characteristics of a normal distribution (Paul & Zhang, 2017). There are different approaches to test for normality using statistical software such as IBM SPSS version 21. The most common way of test is through skewness and kurtosis tests. Kurtosis is an indicator of a degree of flattening of a distribution while Skewness is as a sign of asymmetry and deviation from a normal distribution.

According to Tabachnick and Fidell (2020), values for asymmetry (skewness) and kurtosis between +1.5 and -1.5 are acceptable in order to prove normal univariate distribution. George & Mallery (2017) on the other hand recommends values that ranges between -2 and +2 for both asymmetry and kurtosis tests.

The data collected on all the study variables was tested for normality using skewness and kurtosis and results presented in Table 4.5 shows that the values for both tests were

within the above recommended ranges (+1.5/-1.5 and -2/+2) showing a good moderate balance between platykurtic and leptokurtic distributions around the normal distribution.

Table 4.5: Normality Test Using Skewness and Kurtosis

Variable	N	Std. Dev	Skewness	Kurtosis
Knowledge Management	72	3.410	0.485	0.054
Managerial Networking	72	5.150	-.720	-.200
Innovation	72	2.411	.075	-1.101
Customer Responsiveness	72	1.850	.061	-.303
Competitive Intensity	72	2.207	-.911	.932
Competitive Advantage	72	2.325	.798	1.329

4.4.2 Test of Outliers

All the variables were checked for the presence of significant outliers using the box plot depicted in Figure 4.4. From the plot, it is evident that some of the variables had significant outliers. Specifically, customer responsiveness, innovation, and managerial networking had significant outliers. As Chattefuee and Hadi (2020) argue, outliers should only be deleted from the data set if the analyst can identify errors to be the cause of the outliers. From Figure 4.4, the outliers are between two and four, which indicates that the observations with the outliers could be way below the means of individual observations, but are not due to errors. It follows that the outliers were maintained in the dataset. Further, deleting the outliers from the data set could result in the loss of significant information. Consequently, the study examined all the cases that had outliers to establish the cause of the outliers. Specifically, the study established that the outliers were not caused by errors because a follow up was made on such questionnaires.

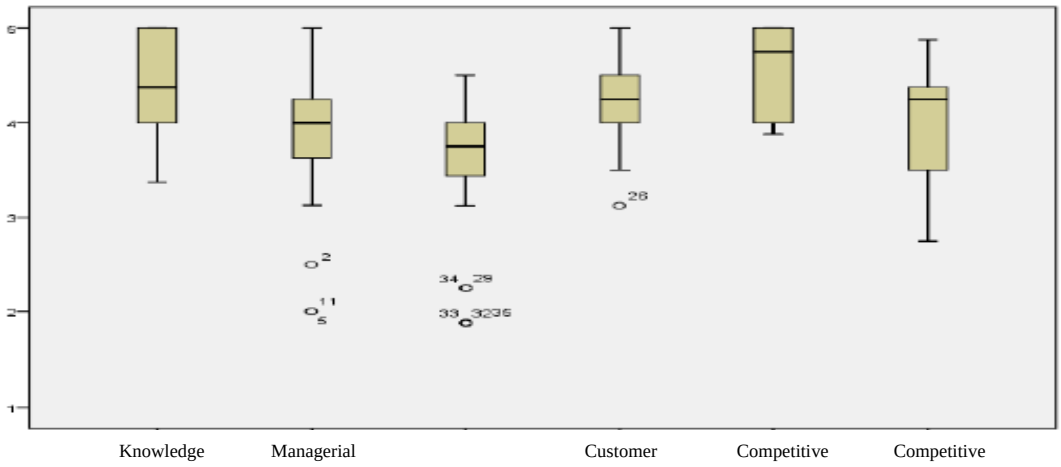

Figure 4.4: A Box Plot for Checking Outliers

4.4.3 Test for Heteroscedasticity

Heteroscedasticity refers to a circumstance in which the variability of a variable is unequal across the range of values of a second variable that predicts it (Engle, 1982). Heteroscedasticity was tested in this study by using the Chi- square test. Chi- square test is a statistical hypotheses test wherein the sampling distribution of the tests statistic is a chi-square distribution when the Null hypotheses is true (Rao & Holt, 2019). Chi-Square Test of Independence was used in this study to compare categorical variables. Additionally, the Chi-Square Test of Independence was therefore used to assess associations between categorical variables, although it provides no inferences about causation. The null hypotheses (H_0) and alternative hypotheses (H_1) of the Chi-Square Test of Independence/association was expressed as follows:

Ho:Variable Xi (independent) is independent of variable Y (dependent)

H_1: Variable Xi (independent) is not independent of variable Y (dependent)

Evidence of Heteroscedasticity is confirmed when the value of probability is greater than the computed value of the Chi-square (Park, 2022). Table 4.6 shows that the constant variance (Chi-square values) were statistically significant with probability values $p<0.05$. Since all the Chi-square values (143.634, 179.459, 167.820, 108.912) were greater than the corresponding probability values (.002, .005, .000, 003), the null hypotheses was rejected and concluded that there was a statistically significant association between all independent variables - knowledge management (KM), managerial networking (MN), innovation (INV), customer responsiveness (CR) and competitive advantage (CA) in medium and large garment companies in Kenya.

Table 4.6: Heteroscedasticity Test Results

	Value of Pearson Chi-Square	**df**	**Asymp. Sig. (2-sided)**
KM * CA	143.634	99	.002
MN * CA	179.459	162	.005
INV * CA	167.820	72	.000
CR * CA	108.912	72	.003

4.4.4 Multicollinearity Test

Multicollinearity is a situation where two or more predictor variables are highly correlated in a multiple regression such that one can be linearly predicted from the others with a substantial degree of accuracy (Kock & Lynn, 2019). It is an undesirable situation where two or more predictor variables in a multiple regression model are highly associated such that one can be linearly predicted easily. The presence of multicollinearity in variables of the study increases the chances of standard error of the coefficients with resultant effect keeping variables that are significantly similar (Schroeder, 2018). When there are variables that have a VIF greater than 5, then the use of these variables must be reconsidered by either merging them or altogether removing them from the regression model (Ethington, 2019).

Variance Inflation Factor (VIF) test and the associated tolerance were used to determine correlations among the variables in this study. VIF values captures the variance of variable coefficients and how they are increased because of collinearity and a VIF value greater than five implies presence of multicollinearity, further indicating the inappropriateness of the variables (Cohen, Cohen, West & Aiken 2020). Tolerance measures the impact of collinearity among the variables in a regression model and is computer using the expression (1 - R2). The closer the tolerance value to 1, the less is the multicollinearity, and the closer to 0 the higher the presence of multicollinearity (Belsley, Kuh & Welsch, 2019). Table 4.7 shows the VIF and the Tolerances values that were computed for the predictor variables of this study. The VIF values ranged from 1.115 to 1.649 (VIF values < 5.00) which shows the absence of undesired multicollinearity effect amongst the study variables.

Table 4.7: Multicollinearity Test Results

Variables	VIF (1/1-R2)	Tolerance (1-R2)
Knowledge Management	1.649	.606
Managerial Networking	1.115	.897
Innovation	1.295	.772
Customer Responsiveness	1.419	.705
Competitive Intensity	1.604	.623

4.4.5 Sampling Adequacy Test

In order to test sampling adequacy or suitability of data used in the study, Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity were used. KMO value gave an index which explains the degree of variances in the study variables that emanated from the underlying factors. KMO value approaching 1 (<=1) implies that factor analysis would work for the data, a good indicator that the factors used in the study were appropriate (Pallant, 2017). On the other hand, Bartlett's Test of Sphericity test is an indicator of whether variables used in the study were related/unrelated positing suitability of structure detection. Table 4.8 indicates a strong result of sampling adequacy where KMO value is 0.738, a value close to 1. The Bartlett's Test of Sphericity Test, with p <

0.05 is an indication of suitability of data for structure detection. These tests therefore confirmed that the data set used were suitable for the analysis in this study.

Table 4.8: KMO and Bartlett's Test Results

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.738
Bartlett's Test of Sphericity	Approx. Chi-Square	267.284
	df	78
	Sig.	.000

4.5 Descriptive Analysis of the Study Variables

Prior to carrying out regression analysis, a descriptive analysis was undertaken to build profiles on the extent to which the participating garment companies' executed specific initiatives that reflected the nature of the predictor variables that were being studied. Further, the subjects responded to questions which aimed at establishing the levels of competitive intensity in their operating environment, as well as to questions on their enterprises levels of competitiveness. The output was computed in terms of frequencies, percentages, means and standard deviations.

4.5.1 Descriptive Analysis for Knowledge Management in Medium and Large Garment Companies in Kenya

The respondents were asked to rate the frequency with which their firms undertook nine (9) distinct practices related to knowledge management (KM). The 9 practices (statements) were drawn from the KM indicators under study which comprised of the extent of knowledge audits, the degree of knowledge sharing culture, and the extent of rewards for knowledge sharing. The researcher used a 5 point likert scale to assess the opinions of the respondents on each statement item. A score of 1 represented never, 2

represented rarely, 3 represented sometimes, 4 represented frequently and 5 represented always.

Results of the study as presented in Table 4.9 revealed that, in as far as knowledge management was concerned; the garment firms rarely assessed the status of knowledge flow to determine the nature of missing knowledge (1.86), rarely evaluated options to determine the most effective methods for imparting new knowledge in the workforce (2.11), but they sometimes assessed how effectively knew knowledge was being applied in organizational activities (2.61). The companies also rarely took measures to create a climate of trust for ease of knowledge disclosure (2.12), rarely encouraged social interactions among employees (2.51), but they at times took measures to resolve internal conflicts which could hinder the willingness to share knowledge (2.62). Further, the firms generally never invented incentives aimed at encouraging knowledge sharing behavior (1.64), never evaluated rewards for knowledge sharing to ensure that they were valued by employees (1.73), and never reviewed rewards for knowledge sharing to ensure that their intended objective was being achieved (1.6).

Table 4.9: Descriptive Analysis for Knowledge Management

KM Indicators		Statements	N	Minimum	Maximum	Mean	SD
Extent of knowledge audits	1	Assessing the status of organization's knowledge to determine missing knowledge	72	1	4	1.86	0.775
	2	Assessing the most effective methods for imparting knowledge in the workforce	72	1	4	2.11	0.761
	3	Assessing how effectively knew knowledge is applied in organizational activities	72	1	4	2.61	0.815
Degree of knowledge sharing culture	4	Promoting a climate of trust to encourage knowledge disclosure	72	1	4	2.12	0.897
	5	Encouraging social interactions among employees	72	1	4	2.51	0.979
	6	Resolving internal conflicts which hinders knowledge sharing	72	1	4	2.62	0.912
Extent to which knowledge sharing behavior is rewarded	7	Inventing rewards which are tied to knowledge sharing	72	1	4	1.64	0.815
	8	Ensuring that rewards for knowledge sharing are valued by employees	72	1	4	1.73	0.830
	9	Reviewing rewards for knowledge sharing to determine if their intended objective is being achieved	72	1	3	1.6	0.640

Key: Ranked on a scale as; Never (1.0-1.7), Rarely (1.8-2.5), Sometimes (2.6-3.3), Frequently (3.4 - 4.1) and Always (4.2-5.0).

Table 4.10: Descriptive Results Summary per Knowledge Management Indicator

Indicator	N	Minimum	Maximum	Mean	Std. Deviation
Extent of knowledge audits	72	1	4	2.19	0.784
Extent of knowledge sharing culture	72	1	4	2.41	0.929
Extent to which knowledge sharing behavior was rewarded	72	1	4	1.64	0.762
			Total	**6.24**	**2.475**
			Average	**2.08**	**0.825**

Key: Ranked on a scale as; Never (1.0-1.7), Rarely (1.8-2.5), Sometimes (2.6-3.3), Frequently (3.4 - 4.1) and Always (4.2-5.0)

An analysis of the results along the knowledge management indicators (table 4.10) revealed that, the firms rarely carried out knowledge audits (2.19), rarely fostered a knowledge sharing culture (2.41) and never rewarded knowledge sharing behavior (1.64). Generally, the participating firms rarely had a focus on knowledge management as depicted by the overall mean of 2.08, for the nine statements on knowledge management.

Additionally, the respondents were required to provide their opinions on whether knowledge management was a critical aspect in achieving and maintaining competitive advantage in the industry. The results as shown in table 4.11 shows that a majority (68.1%) agreed that KM was indeed essential in creating a competitive edge. This somehow contradicted the descriptive findings as posted in Tables 4.9 and 4.10. Many that were in agreement on the criticality of KM generally explained that adequate circulation of knowledge across the entire supply chain and along different layers of organization was vital for prudent decision making during strategic planning, that it helped optimize the utilization of firm resources and attain precision when assessing customer needs. Others explained that KM adds value to garment products by enhancing

quality and by creating a favorable customer perception of brand platforms. 15.3% did not regard KM as vital for creating a competitive edge in the sector whereas 16.6% were undecided.

Table 4.11: Respondents' Views on Critically of Knowledge Management in Achieving and Maintaining Competitive Advantage

Statement	N	Percent	Key explanations provided by respondents
KM is Critical	49	68.1	Vital for prudent decision making Helps attain precision when assessing customer needs Adds value to garments by informing quality enhancement decisions
KM Not Critical	11	15.3	KM is more relevant to enterprises that are operating in knowledge intensive areas e.g., Consulting firms Cost of implementation will probably outweigh benefits
Undecided	12	16.6	KM is an intangible asset thus difficult to measure its value KM has never been a major focus within the firm, therefore difficult to assess its value
Total	**72**	**100**	

Table 4.12: Major Impediments to Knowledge Management as per Respondents Views

1	Lack of KM emphasis within organizational culture
2	Poor grasp of KM concept within the organization
3	Lack of senior management commitment
4	Lack of incentives for knowledge sharing
5	High costs of implementation

The disparity between what garment firms in many developing economies feel about KM (table 4.12– majority agreeing KM is critical) and what is actually evident (tables 4.10 and 4.11 – very limited application of KM) has been highlighted in previous empirical works; Goedhuys, Janz and Mohnen (2020) for example found that, whereas

firms in developing nations appreciates the importance of knowledge management, they have for long failed to infuse it, especially in low-tech industries such as the low-skilled, labor-intensive garment sector for which they typically had a revealed comparative advantage. Owino, Cosmas and Jagongo (2019) have noted that managers in Kenya's manufacturing sector indeed appreciate the strategic need for knowledge management at the organizational apex, but goes on to point out that this urge is yet to be inscripted into the organizational policy framework. Their findings further reveals that the lack of knowledge sharing culture, leadership, time, rewards, recognition, climate of trust and openness influences the institutionalization of knowledge management. In a study aimed at identifying the main factors influencing the outcomes of tailoring apprenticeship in Kenya, Apunda (2017) concluded that, limited knowledge flow pertaining to clothing production and processes contributed significantly to poor performance in garment producing firms.

Whereas many researchers (Cheruiyot, Jagongo & Owino, 2019; Goedhuys, Janz & Mohnen, 2020; Maiyo, Abong'o & Tuigon'g, 2021; Apunda, 2017) attributes the foregoing state of affairs to lack of management support and commitment in the sector, Kenta (2019) on the contrary argues that it is the global escalation in costs of labor, process and products upgrades which forces scores of garment firms to relegate the knowledge-intensive functions such as in-house design, branding and marketing to suppliers. Also desisting the popular view and corroborating the views by some respondents (table 4.12) are Fukunishi (2020) and Goto (2018) who argues that, the importance of knowledge management in the garment manufacturing sector is highly exaggerated and misunderstood; in Fukunishi's and Goto's view, the critical functions in garment production (garment assembly process, spinning and weaving), are labor-intensive and capital-intensive respectively, as opposed to knowledge intensive.

4.5.2 Descriptive Analysis for Managerial Networking in Medium and Large Garment Companies in Kenya

The respondents were asked to rate the extent to which their firms executed nine (9) practices which effectively represents the essence of managerial networking. The nine initiatives (presented in the form of statement) were derived from the managerial networking indicators chosen for this study which included; the extent of ties with government agencies, the extent of ties with financial institutions and the extent of ties with business entities. The researcher used a 5 point likert scale to assess the views of the respondents on each statement. A score of 1 represented never, 2 represented rarely, 3 represented sometimes, 4 represented frequently and 5 represented always.

Results of the study as presented in Table 4.13 shows that in relation to managerial networking; the garment firms frequently expended resources to strengthen ties with government agencies (3.81), sometimes invited government officials to company facilities and activities (3.21) and frequently took measures to mitigate potential conflicts between the firm and government agencies (4.00). The study also established that the garment companies sometimes created joint initiatives with financial institutions with the aim of realizing joint success (3.31), frequently maintained a climate of trust with financial institutions (4.01) and that they sometimes communicated their own financial progress and future goals to relevant financial institutions (3.31). The research further revealed that the firms were frequently keen on cultivating strong social ties with suppliers (4.04), were frequently keen on cultivating strong social relations with customer firms (4.11) and that they frequently emphasized strong ties with competitor firms for joint action against industry uncertainties (3.81).

Table 4.13: Descriptive Analysis for Managerial Networking

MN Indicators		Statements	N	Minimum	Maximum	Mean	SD
Extent of ties with government agencies	1	Investing organizational resources on ties with government agencies	72	1	5	3.81	1.161
	2	Inviting government officials to company facilities/activities	72	1	5	3.21	0.873
	3	Mitigating potential conflicts between the firm and government agencies	72	2	5	4.00	0.062
Extent of ties with financial institutions	4	Initiating joint initiatives between the firm and financial institutions to create opportunities for joint success	72	1	5	3.31	0.439
	5	Maintaining a climate of trust between the firm and financial institutions	72	1	5	4.01	1.266
	6	Communicating firm's financial progress and future goals to relevant financial institutions	72	1	5	3.31	0.368
Extent of ties with business entities	7	Cultivating strong social ties with suppliers	72	2	5	4.04	0.674
	8	Cultivating strong social relations with customer firms	72	1	5	4.11	0.848
	9	Forging connections with competitor firms for joint action against industry uncertainties	72	1	5	3.81	0.594

Key: Ranked on a scale as; Never (1.0-1.7), Rarely (1.8-2.5), Sometimes (2.6-3.3), Frequently (3.4 - 4.1) and Always (4.2-5.0).

Table 4.14: Descriptive Results Summary per Managerial Networking Indicator

Indicator	N	Minimum	Maximum	Mean	Std. Deviation
Extent of ties with government agencies	72	1	5	3.67	0.698
Extent of ties with financial institutions	72	1	5	3.54	0.691
Extent of ties with business entities	72	1	5	3.99	0.705
			Total	**11.2**	**2.094**
			Average	**3.73**	**0.698**

Key: Ranked on a scale as; Never (1.0-1.7), Rarely (1.8-2.5), Sometimes (2.6-3.3), Frequently (3.4 - 4.1) and Always (4.2-5.0).

A summary of the results along the managerial networking indicators (table 4.14) revealed that, the firms were frequently keen on cultivating and maintaining ties with relevant government agencies (3.67), were frequently keen on initiating and maintaining ties with financial institutions (3.54) and also that they frequently fostered strong ties with other business entities (3.99). Overall, the managerial networking aspect was frequently emphasized in garment firms as evident from the mean of 3.73 for the nine statements in the construct.

Further, the respondents were required to provide their opinions on whether managerial networking was a critical aspect in achieving and maintaining competitive advantage in the industry. The results as shown in table 4.15 shows that an overwhelming majority (94.4%) were in agreement that managerial networking was infact important in creating a competitive advantage. Many that were in agreement explained that managerial networking helps firms to acquire information and resources, enhances strategic conformity with industry norms and that it provides a firm with new competencies which helps improve delivery efficiency. 5.6% of the respondents were however undecided (not sure) about the positive link between MN and competitive advantage.

Table 4.15: Respondents' Views on Critically of Managerial Networking (MN) in Achieving and Maintaining Competitive Advantage

Statement	N	Percent	Key explanations provided by respondents
MN is Critical	68	94.4	Helps firms to acquire information and resources Enhances strategic conformity with industry norms Provides a firm with new competencies which helps improve delivery efficiency
Undecided	4	5.6	Need to be planned carefully for which most firms are uncapable of achieving The art of reciprocation especially in political networks complicates expected outcomes There is no guarantee in terms of the value or quality of the benefit
Total	**72**	**100**	

Table 4.16: Major Impediments to Managerial Networking as per Respondents Views

1	When some managers leave the firm, they migrate with their networks
2	Developing and maintaining networks is time-consuming and costly
3	Networks may become worthless/liability if one party loses its sought competencies
4	Can be copied. An outside newcomer can penetrate the rival's network
5	There is little trust or commitment in political networks and in networks with competitors

The above results (tables 4.14, 4.15 and 4.16) affirms what has been documented in a great deal of existing literature which indicates that, networking is a valuable business strategy to firm owners and managers, more so in developing countries such as Kenya; Surin, Edward, Hussin and Ab Wahab (2016) for instance argue that, managerial networking performs an important role in acquiring various resources, both tangible and intangible and are helpful in leveraging business performance. Stam, Arzlanian and Elfring (2021) suggests that strategic business networking is needed at different

points in time and in different industries and countries; Mwangi and Shem (2019) for example observes that, enterprise owners and managers in developing countries, especially in Africa including Kenya have evolved networking as a mechanisms to circumvent credit constraints. Thus borrowers, who are poor in collateral assets and for whom lenders have poor information about their creditworthiness have resorted to the use of social capital to improve their accessibility to credit (Amwayi, Omete & Asakania, 2021).

Shamsuzzoha, Kankaanpaa, Carneiro, Almeida, Chiodi & Fornasiero, 2020, and Fafchamps and Quinn (2016) contends that, in many developing and emerging economies such as Kenya, Botswana and Ghana, new market-supporting institutions remain underdeveloped often leading to higher transaction costs; top executives in such scenarios thus use connections with government officials and business partners to navigate around institutional void (Zhou, Li, Sheng & Shao, 2021). According to Tallam, Maru and Lagat (2022), small and medium firms often resorts to networking as a unique way of overcoming their size and age related challenges; in order to stay competitive and avoid being cannibalized by large companies, such firms establishes and manages dynamic and non-hierarchical networks to respond to market opportunities and for agile responses to industry uncertainties (Schoonjans, Van Cauwenberge & Vander Bauwhede, 2020; Camagni, Capello, 2017). This logic renders some relevance to the above results, considering that a large part of this study's population is constituted by medium sized enterprises.

Surin, et al. (2016) accordingly identifies two major categories of business ties – dense and weak ties – and goes on to affirm the need for prudence in choosing the networks an enterprise ought to belong to; whereas a dense network allows for resource accessibility due to the willingness of the members to share resources (Lin, 2017), a firm can also benefit from the fresh ideas that are circulated among members in weak ties (Hurlbert, Beggs & Haines, 2017).

4.5.3 Descriptive Analysis for Innovation in Medium and Large Garment Companies in Kenya

The respondents were given a range of statements aimed at assessing the degree of innovativeness in their firms. They were required to rate the extent to which their firms implemented nine (9) practices related to innovation. The researcher used a 5 point likert scale to assess the opinions of the respondents on each statement. A score of 1 represented never, 2 represented rarely, 3 represented sometimes, 4 represented frequently and 5 represented always.

Results in Table 4.17 shows that in relation to the magnitude on focus innovation; the firms under study sometimes assessed product research ideas in relation to options, risks, costs versus benefits, and the impact on the end-user (2.81), sometimes sourced for partners needed for new product development (2.75), but rarely documented and communicated results of new product trials to relevant stakeholders (2.40). Similarly, the firms were rarely keen on ensuring that members selected for innovation projects had complementary skills (2.22), rarely ensured team members' roles, responsibilities and operating methods were clearly established (2.17), but at times provided administrative support (e.g. finances) to new product development teams (2.61). Further, the firms generally, never introduced products that were first of their kind in the industry (1.76), never improved or revised existing products (1.69) and never repositioned products to serve new markets (1.44).

Table 4.17: Descriptive Analysis for Innovation

Innovation Indicators		Statements	N	Minimum	Maximum	Mean	SD
R&D intensity	1	Assessing product research ideas in relation to options, risks, costs, benefits, and impact on end - users	72	1	5	2.81	0.959
	2	Sourcing for partners (e.g. new suppliers) needed for new product development	72	1	5	2.75	1.071
	3	Documenting results of new product trials and communicating the results to relevant stakeholders	72	1	5	2.40	0.832
Extent of focus on cross-functional collaborations	4	Ensuring team members selected for innovation projects have complementary skills	72	1	5	2.22	1.091
	5	Ensuring team members' roles, responsibilities and operating methods are clearly established	72	1	4	2.17	0.919
	6	Providing administrative support (e.g. financial support) to projects teams	72	1	5	2.61	0.928
Frequency of new product introductions	7	Introducing products that are first of their kind in the industry	72	1	5	1.76	0.847
	8	Improving/revising existing products	72	1	4	1.69	1.057
	9	Repositioning products to serve new markets	72	1	4	1.44	0.918

Key: Ranked on a scale as; Never (1.0-1.7), Rarely (1.8-2.5), Sometimes (2.6-3.3), Frequently (3.4 - 4.1) and Always (4.2-5.0).

Table 4.18: Descriptive Results Summary per Innovation Indicator

Indicator	N	Minimum	Maximum	Mean	Std. Deviation
Extent to which firms undertook in R&D	72	1	5	2.65	0.954
Extent to which cross-functional collaborations were emphasized	72	1	5	2.33	0.979
Extent to which new products were introduced	72	1	5	1.63	0.941
			Total	**6.61**	**2.874**
			Average	**2.21**	**0.958**

Key: Ranked on a scale as; Never (1.0-1.7), Rarely (1.8-2.5), Sometimes (2.6-3.3), Frequently (3.4 - 4.1) and Always (4.2-5.0).

A summary of the results along the innovation indicators (table 4.18) revealed that the firms sometimes had a focus on R&D (2.65), rarely put emphasis on cross functional collaborations (2.33) and never put emphasis on new products introduction (1.63). Generally, the firms under study rarely had a focus on innovation as evident from an overall mean of 2.21 for the nine statements under the innovation construct.

Table 4.19: Respondents' Views on Critically of Innovation in Achieving and Maintaining Competitive Advantage

Statement	N	Percent	Key explanations provided by respondents
Innovation is Critical	47	65.3	Enables the firm to provide variety to consumers
			Enables firm to adapt to industry changes swiftly
			Process innovations improves performance and efficiency
Undecided	25	34.7	Costs of continuous innovation are likely to erode the benefits
			No guarantee that customers will be receptive to certain forms of garment changes
			Competitive advantage provided by innovation does not last due to imitation by rival firms
Total	**72**	**100**	

Table 4.20: Major Impediments to Innovation as per Respondents Views

1	Internal politics diverges organizational focus from innovation
2	Limited financial resources
3	Lack of innovation emphasis within organizational culture
4	Management incentives are not structured to reward innovation
5	Belief that innovation is inherently risky

Whereas a majority of respondents (65.3% – table 4.19) holds the belief that innovation is an important ingredient in creating competitive advantage, the results in tables 4.17 and 4.18 indicates that there is little innovation practice in Kenya's garment industry. Researchers such as Katende-Magezi (2017) argues that, in addition to being the biggest consumers of second-hand imported clothes (SHC), African countries are also at the bottom rung of the manufacturing sophistication ladder in the world. A report by EAC Secretariat (2022) has equally pointed out that the EAC member nations have not been keen on elevating the local garment sector because they consider imported apparels as cheaper, of higher quality, more fashionable, and good value for money, creating thousands of jobs for local people and revenue for government as compared to local producers. Hansen (2021) asserts that the chief attraction of imported clothes lies not so much on the price, but on style and variety, features which are hard to come by in local African products. A study by Berg, Hedrich and Russo (2022) revealed that some Kenyan garment manufacturers were not eager to expand their sales to Europe because they perceived European buyers as more demanding with respect to lead times, order sizes, and quality.

Accordingly, Maiyo and Imo (2019) and Morris, Plank and Staritz (2016) clarifies the irony of dilapidated garment factories in Kenya, whereas the public is consistently fed on reports of growing apparel exports; they (Maiyo & Imo, 2019; Morris, Plank & Staritz, 2016) have pointed out that the majority of the seemingly thriving firms are not so much part of the indigenous enterprises, but subsidiaries of foreign multinationals established through the Kenya's EPZA program; these are entities which are entitled to

exclusive treatment such as preferential market access to European Union and the US. In their conclusion on matters innovation, Berg, Hedrich and Russo (2022) posits that if East Africa is to experience sustainable growth in garment manufacturing, garment makers will need to embrace performance improvements and management training, upgrade their facilities and offerings, and enter into long-term partnerships with buyers. Brooks (2016) and (Katende-Magezi, 2017) reinforces the foregoing by insisting that besides raw materials and tailoring, clothing requires design capacity and manufacturing technology, and that the harder part for east African manufacturers is designing clothes competitively, to the level of the western world.

4.5.4 Descriptive Analysis for Customer Responsiveness in Medium and Large Garment Companies in Kenya

The participants were required to respond to nine statements representing three customer responsiveness indicators which comprised of; the intensity of product customization, the extent of organizational flexibility and the extent of organizational agility. Each response was measured along a 5 point likert scale where a score of 1 represented never, 2 represented rarely, 3 represented sometimes, 4 represented frequently and 5 represented always.

Results in Table 4.21 indicates that, in as far as customer responsiveness was concerned; the firms frequently allowed high value customers to determine the style, material and design of their product from the start (3.44), frequently availed a wide range of garment styles and materials for customers to choose from (3.85) and that they also frequently allowed customers to suggest or make modifications to finished products such as putting logos, embroidery and ornamentation (3.65). Also, the firms sometimes changed managerial roles in accordance with evolving market needs (3.10), sometimes adjusted operations routines in accordance with evolving market needs (2.90), and that they also at times-maintained logistics system which easily adapted to evolving customer tastes (2.86). The firms however, rarely put in the effort to sense market opportunities or craft plans on how to seize them (2.40), were rarely swift in assembling teams with the right

talent to address abrupt market challenges (2.35) and further that they rarely emphasized continuous operational improvements (2.46).

Table 4.21: Descriptive Analysis for Customer Responsiveness

CR Indicators		Statements	N	Minimum	Maximum	Mean	SD
Intensity of product customization	1	Allowing high value customers to determine the style, material and design of their product from the start	72	1	5	3.44	0.855
	2	Availing a wide range of garment styles and materials for customers to choose from	72	2	5	3.85	0.929
	3	Allowing customers to suggest/make modifications to finished products e.g. putting logos, embroidery, ornamentation	72	1	5	3.65	0.407
Extent of organizational flexibility	4	Changing managerial roles in accordance with evolving market needs	72	1	5	3.10	0.651
	5	Adjusting operations routines in accordance with evolving market needs	72	1	5	2.90	0.899
	6	Maintaining a logistics systems (e.g. supply system) which easily adapts to evolving customer tastes	72	1	5	2.86	0.924
Extent of organizational agility	7	Sensing opportunities and drawing plans on how to seize them	72	1	4	2.40	0.833
	8	Swiftly assembling teams with the right talent to address abrupt market challenges	72	1	5	2.35	1.004
	9	Focusing on continuous operations improvements	72	1	5	2.46	0.373

Key: Ranked on a scale as; Never (1.0-1.7), Rarely (1.8-2.5), Sometimes (2.6-3.3), Frequently (3.4 - 4.1) and Always (4.2-5.0).

Table 4.22: Descriptive Results Summary per Customer Responsiveness Indicator

Indicator	N	Minimum	Maximum	Mean	Std. Deviation
Extent to which firms emphasized product customization	72	1	5	3.65	0.730
Extent to which firms emphasized organizational flexibility	72	1	5	2.95	0.825
Extent to which firms emphasized organizational agility	72	1	5	2.40	0.737
			Total	**9.00**	**2.292**
			Average	**3.00**	**0.764**

Key: Ranked on a scale as; Never (1.0-1.7), Rarely (1.8-2.5), Sometimes (2.6-3.3), Frequently (3.4 - 4.1) and Always (4.2-5.0).

Analysis of the results as per the customer responsiveness indicators (table 4.22) implies that, the firms indeed frequently emphasized the product customization aspect (3.65), sometimes put emphasis on organizational flexibility (2.95), but rarely had a focus on organizational agility (2.40). In general, the participating companies paid attention to customer responsiveness only at times, as depicted by a mean of 3.00 for the nine statements on CR.

Table 4.23: Respondents' Views on Critically of Customer Responsiveness (CR) in Achieving and Maintaining Competitive Advantage

Statement	N	Percent	Key explanations provided by respondents
CR is Critical	37	51.4	Leads to customer satisfaction Defines target market thereby leading to proper resource use Generates customer loyalty
Undecided	35	48.6	Not critical for certain types of garments e.g., the uniforms sector Focusing on individual customer needs erodes a firm's economies of scale Not necessary for customers without a repeat potential/ one-time buyer
Total	**72**	**100**	

Table 4.24: Major Impediments to Customer Responsiveness as per Respondents Views

1	Lack of research resources
2	Organizational inflexibility
3	Failing to empower sales and customer service teams
4	Poor data collection and lack of accurate customer insights
5	Lack of customer emphasis within organizational culture

Hansen (2021) observes that the apparel consumers' desire for uniqueness and to stand out entails considerable skill and effort in sensing the frequent shifts in consumer tastes, and consistently gathering and incorporating consumer information in relation to garment quality, style and pricing. This acumen, according to Kinuthia, Mburugu & Mulu-Mutuku (2019) is considerably lacking among local Kenyan apparel manufacturers (as evident in tables 4.22, 4.23 and 4.24). In Imo's and Maiyo's (2019) view, the reluctance to respond effectively to consumer demands has significantly contributed to the mass shift towards imported clothing. In a survey on satisfaction levels with locally manufactured ready-made clothes, Mastamet-Mason, Ramatla & Wandaka (2018) found that 31.2% were just fairly satisfied whereas 4.7% were

dissatisfied; they cited fit as the most frequently reported complication with clothing purchases. Consistent with this revelation are the findings by Otieno (2019) who found sizing issues to be often overlooked and regarded as unimportant in less developed countries. In reference to manufacturing agility and flexibility aspects of customer responsiveness, Mastamet-Mason, Ramatla & Wandaka (2018) observes that the Kenyan apparel manufacturers are seemingly oblivious to the fact that their competitors are no longer the high labor cost western countries, but the low labor cost Asian countries which have made enormous investments in high response manufacturing technologies, computer-aided design and cutting systems, and skills development of workers. It is in this regard that Chimwani, Nyamwange and Otuyo (2020) and Charles, Joel and Samwel, (2019) recommends the supplementation of traditional financial measures with non-financial measures – particularly, customer focused measures in the Kenyan manufacturing sector.

4.5.5 Descriptive Analysis for Competitive Intensity in Medium and Large Garment Companies in Kenya

In order to gain insights on the degree of competitive intensity under which the garment firms operated, the participants were asked to respond to three statements which reflected the phenomena of competitive intensity. Each response was measured along a 5 point likert scale where a score of 5 represented strongly agree, 4 represented agree, 3 represented uncertain, 2 represented disagree and 1 represented strongly disagree.

Table 4.25: Descriptive Analysis for Competitive Intensity

Statements	% SD	D	UNCTN	A	SA	Mean	SD
When a firm introduces an innovation the rest copy the idea quickly	-	9.7	9.7	25.0	55.6	4.26	.993
One hears of a new competitive move in our market frequently	-	19.4	20.8	40.3	19.4	3.60	1.016
There are many competitors who enter and leave the industry	9.7	20.8	9.7	38.9	20.8	3.40	0.761
Price wars are normal	-	9.2	8.4	27.5	54.9	4.32	.826
There are many "promotion wars" in our market	2.9	8.6	7.3	28.6	52.6	4.14	.982
Competition in our market is cut-throat	1.8	17.3	21.6	38.9	20.4	3.60	859
Total						**23.32**	**5.811**
Average						**3.89**	**0.969**

n=72

Key: *SD=Strongly disagree, D=Disagree, UNCTN =Uncertain, A=Agree and SA=Strongly agree*

Scale for mean (M) scores: 1.0-1.7=Strongly disagree (SD), 1.8-2.5=Disagree (D), 2.6-3.3=Uncertain (UNCTN), 3.4 - 4.1=Agree (A) and 4.2-5.0=Strongly agree (SA)

The study findings as depicted in table 4.25 shows that the majority (80.6% for A & SA) were in agreement that when a firm introduced an innovation, the rest were quick to copy the idea. 19.4% were evenly split between those who were uncertain and those who disagreed with the view. Similarly, a majority (59.7% for A & SA) agreed that they frequently encountered new competitive moves in the market, a view for which 20.8% were uncertain about and 19.4% disagreed with. Further, 59.7% (A & SA) were in agreement that firms entered and exited the industry frequently, whereas 30.5% disagreed with this view. In an almost equal measure, 54.9% and 52.6% respectively, strongly agreed that price wars were normal, and also that there were many promotional

wars in the market. The overall mean of 3.89 for the nine statements implied that the respondents were generally in agreement that the Kenyan garment industry had a high degree of competitive pressure.

4.5.6 Descriptive Analysis for Competitive Advantage in Medium and Large Garment Companies in Kenya

The respondents were asked to rate their entities' performance along three parameters (sales turnover, market share and profit), which are highly associated with a firm's degree of competitiveness. Each response was measured along a 5 point likert scale where a score of 1 represented "has decreased greatly" (DG), 2 represented "has decreased slightly" (DS), 3 represented "has not changed (NC), 4 represented "has increased slightly" (IS), and 1 represented "has increased greatly (IG). The results were as depicted in table 4.26.

Table 4.26: Descriptive Analysis for Competitive Advantage

	%					Mean	SD
Statements	**DG**	**DS**	**NC**	**IS**	**IG**		
Sales turnover	19.4	51.4	25.0	2.8	1.4	2.15	.816
Market Share	20.8	56.9	16.7	5.6		2.07	.775
Profit	25.0	58.3	11.1	4.2	1.4	1.99	.813
Total						**6.21**	**2.404**
Average						**2.07**	**0.801**

n=72

Key: DG = has decreased greatly, DS=has decreased slightly, NC=has not changed, IS=has increased slightly, IG=has increased greatly

Scale for mean (M) scores: 1.0-1.7=has decreased greatly, 1.8-2.5= has decreased slightly, 2.6-3.3= has not changed, 3.4 - 4.1= has increased slightly and 4.2-5.0= has increased greatly

Results in table 4.26 shows that majority of firms (70.8%) had posted a slight or great decrease in sales turnover, and that sales growth had stagnated in 25% of the firms with only 4.2% posting partial or high growth in sales. In regard to market share growth the findings shows that, a large proportion of the firms (77.7%) reported either a slight or great decrease, 16.7% had not posted any growth, and that slight growth was attained by just 5.6% of the garment firms under study. The results further revealed that 83.3% of the firms had experienced partial or great decline in profit margins, and that profit growth had stagnated in 11.1% of the firms with only 5.6% of the companies posting either small or great growth in profits. The overall mean of 2.07 implied that the participating firms had undergone a decline in competitive advantage in the past five years.

4.6 Correlation Analysis

Before conducting regression analysis, the researcher undertook correlation test in order to establish whether there was a relationship between the variables and also to determine if there was multicollinearity between the predictor variables. The Pearson‘s correlation coefficient was used to check the relationships between the variables. Mugenda and Mugenda (2008) reveals that the above mentioned statistic always ranges from positive one to negative one. The authors further reveal that a correlation coefficient that is close to positive one indicates the presence of a strong positive relationship between two variables while a correlation coefficient that is close to negative indicates the presence of a strong negative relationship between two variables. As a proof that a relationship exists, the correlation coefficient between an independent variable and the dependent variable should not be an absolute zero. Further, Malhotra, Birks and Wills (2020) argues that the ideal set of independent variables for a study are those that are distinctive from each other which is evidenced by low loadings between the variables (low correlation). According to Hair, Black, Anderson and Tatham (2020), the correlation coefficient between each pair of independent variables in the Pearson’s correlation should not exceed 0.90. The results in Table 4.28 shows that there was a significant linear relationship between the dependent variable and the independent variables (all the

values ranged between -.458 and .603 with no relationship depicting an absolute zero). It is also evident that there was no multicollinearity between the independent variables as all the loadings were evidently low, ranging between -.573 and .495.

Table 4.27: Pearson Correlation Coefficients

		X_1	X_2	X_3	X_4	X_5	Y
X_1	Pearson Correlation	1	.204	.354**	.416**	-.573**	.415**
	Sig. (2-tailed)		.085	.002	.000	.000	.000
X_2	Pearson Correlation	.204	1	.082	.298*	-.095	.241*
	Sig. (2-tailed)	.085		.495	.011	.429	.041
X_3	Pearson Correlation	.354**	.082	1	.386**	-.385**	.603**
	Sig. (2-tailed)	.002	.495		.001	.001	.000
X_4	Pearson Correlation	.416**	.298*	.386**	1	-.366**	.507**
	Sig. (2-tailed)	.000	.011	.001		.002	.000
X_5	Pearson Correlation	-.573**	-.095	-.385**	-.366**	1	-.458**
	Sig. (2-tailed)	.000	.429	.001	.002		.000
Y	Pearson Correlation	.415**	.241*	.603**	.507**	-.458**	1
	Sig. (2-tailed)	.000	.041	.000	.000	.000	

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

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

Key: X_1-Knowledge management, X_2-Managerial networking, X_3-Innovation, X_4-Customer responsiveness, X_5-Competitive intensity, Y-Competitive advantage).

4.7 Relationship between Independent Variables and Dependent Variable

The analysis on the relationship between the dependent and independent variables was conducted at two levels. In the first level of analysis, the study sought to find out the micro effect of each predictor variable (knowledge management, managerial networking, and innovation and customer responsiveness) on competitive advantage. This was followed by a multiple regression analysis to establish the joint effect of the predictor variables on competitive advantage.

4.7.1 Influence of Knowledge management on Competitive Advantage in Medium and Large Garment Companies in Kenya

In order to establish whether knowledge management had a significant influence on competitive advantage in medium and large garment companies in Kenya, a simple linear regression analysis was conducted. The study hypothesized that; Ho1: Knowledge management (X_1) does not have a significant influence on competitive advantage in medium and large garment companies in Kenya. To test the hypothesis, the model; $Y= \beta_0 + \beta_1 X_1 + e$, was fitted. The test was done at 0.05 level of significance. Results of the analysis were as shown in Table 4.28.

Table 4.28: Model Summary for Knowledge Management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.415	.172	.161	0.96357

a. Predictors: (Constant), Knowledge Management

The coefficient (R) of 0.415 as shown in Table 4.29 implies that, there was a moderate and positive relationship between knowledge management and competitive advantage in medium and large garment companies in Kenya. An R square of 0.172 indicates that 17.2% of the variation in competitive advantage can be explained by a unit change in knowledge management. The adjusted R Square of 0.161 indicates that knowledge

management explains only 16.1% of the variation in competitive advantage, while 83.9% is explained by other factors not included in the model. The adjusted R square is usually considered a more precise indicator of the relationship between the independent and the dependent variable, because it excludes the effect of extraneous variables from the model.

Further, an analysis of Variance (ANOVA) was conducted to test for the significance of the relationship between knowledge management and competitive advantage. As shown in table 4.29, it is evident that the overall regression model achieved a high degree of fit, as reflected by the F = 14.584, p=0.000. The results show that the model is statistically significant in explaining the relationship between knowledge management and competitive advantage in medium and large garment companies in Kenya.

Table 4.29: ANOVA for Knowledge Management

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66.189	1	66.189	14.584	.000
	Residual	317.686	70	4.538		
	Total	383.875	71			

a. Dependent Variable: Competitive Advantage
b. Predictors: (Constant), Knowledge Management

A beta coefficient test of the model was conducted to determine the expected change in the criterion variable for each unit change in the predictor. The beta coefficient value (β = 0.283) as tabulated in Table 4.30 implies that, a unit change in knowledge management led to a corresponding change in competitive advantage at the rate of 0.283. The p value = 0.000 indicates that the change in competitive advantage resulting from a change in knowledge management was not by chance and was therefore significant. Since the p value for the constant α = 0.527 was greater than p= 0.05, the effect of the constant on the model was not significant. This indicates that much of the variation in competitive advantage was influenced by knowledge management and not the constant.

Table 4.30: Coefficients for Knowledge Management

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.899	1.413		.636	.527
	KM	.283	.074	.415	3.819	.000

a. Dependent Variable: Competitive Advantage

Upon the substitution of coefficients in the model above, the equation; $Y= 0.899+0.283X_1$, was fitted.

Hypothesis Ho_1: Suggests that knowledge management does not have a significant influence on competitive advantage in medium and large garment companies in Kenya. Results in Table 4.28, however, indicate a moderate and positive relationship between knowledge management and competitive advantage. Further, results of the (ANOVA) as shown in Table 4.29, indicate that the relationship between knowledge management and competitive advantage is highly significant at 95% confidence. The Ho1 was therefore rejected and the alternative hypothesis that, knowledge management has a significant influence on competitive advantage was accepted.

1. Discussion of Results on the Relationship between Knowledge Management and Competitive Advantage

Previous empirical studies have investigated the relationship between KM and competitive advantage, with the bulk of the findings providing support for positive and significant relationship between KM and CA (e.g. Kmieciak & Michna, 2018; Gholami et al, 2020, Byukusenge & Munene, 2017; Kanat & Atilgan, 2021; Sunardi & Tjakraatmadja, 2020); Casimir, Lee & Loon, 2019). Following their study on knowledge management orientation and innovativeness in medium sized enterprises in Poland, Kmieciak and Michna (2018) noted that knowledge, and most notably market knowledge which is directly related to market information about customers, competitors,

suppliers and distributors, and internal knowledge such as, technology or specialized skills of operation is a strategically important resource for a firm and it serves as a basic source of competitive advantage. Byukusenge and Munene (2017) on their part noted that, businesses that strive to remain competitive ought to put more effort on the management of their knowledge resources that are necessary in increasing profits, sales growth, and market share.

Findings by Leal-Rodríguez et al. (2020) indicates that effective management of knowledge in different levels of the organization generates capabilities that are unique, which in turn contribute to increased competitiveness through innovation. Kanat and Atilgan (2021) have shown that, external knowledge management systems bring value chain members closer together and add value to the product (i.e. increased quality, customer perceptions of brand platforms) throughout the value chain. They also found that, knowledge creation and knowledge transfer increases the performance and success of supply chain management in the clothing sector. Sunardi & Tjakraatmadja (2020) have shown that rewards and incentives play an enabling role in knowledge management implementation and in determining the degree of competitiveness within a selected medium-sized manufacturing enterprises in Indonesian. Gholami et al. (2020), like many other researchers, reported a significant relationship between KM and business performance. In this case, knowledge sharing had higher factor loading compared with other KM practices. Evidence by Casimir, Lee and Loon (2019) suggests that social interactions and affect-based trust between employees facilitates knowledge sharing and superior organizational performance.

Nonetheless, the foregoing findings (indicating a positive and significant relationship) have been challenged in several other studies. For instance, studies by Chen and Huang (2019) and Schiuma, Andreeva, and Kianto (2019), indicate that KM does not have a direct effect on business performance except through innovation. Such studies have therefore emphasized a focus on innovation as an antecedent to sustainable competitive advantage. Additionally, Molnar, Nguyen, Homolka, and Macdonald (2018) and Durst and Edvardsson (2019) have noted that research on KM application in medium

enterprises, particularly in developing countries, are few. As a result, Tee, Oon, Kuek, and Chua (2019) suggested the need for more research to enrich the empirical studies on the relationships between KM and a firm's level of competitiveness.

4.7.2 Influence of Managerial Networking on Competitive Advantage in Medium and Large Garment Companies in Kenya

To determine whether managerial networking had a significant influence on competitive advantage in medium and large garment companies in Kenya, a simple linear regression analysis was run. The study hypothesized that; Ho2: Managerial networking (X_2) does not have a significant influence on competitive advantage in medium and large garment companies in Kenya. For test of the hypothesis, the model; $Y= \beta_0 + \beta_2 X_2 + e$, was fitted. The test was done at 0.05 level of significance. Results of the analysis were as shown in Table 4.31.

Table 4.31: Model Summary for Managerial Networking

Model	R	R Square	Adjusted R	Std. Error of the Estimate
1	.241	.058	.045	0.82973

a. Predictors: (Constant), Managerial Networking

The coefficient (R) of 0.241 as shown in Table 4.31 implies a weak but positive relationship between managerial networking and competitive advantage in medium and large garment companies in Kenya. The R^2 of 0.058 mean that 5.8% of the variation in competitive advantage can be explained by a unit change in managerial networking. The adjusted R Square of 0.045 indicates that managerial networking accounts for only 4.5% of the variation in competitive advantage, while 95.5% is explained by other factors not included in the model.

An analysis of Variance (ANOVA) was further, conducted to test for the significance of the relationship between managerial networking and competitive advantage. As shown in Table 4.32 below, the overall regression model achieved a high degree of fit, as reflected by an F = 4.322, p=0.041. This result implies that managerial networking is statistically significant in explaining the variation in competitive advantage in medium and large garment companies in Kenya.

Table 4.32: ANOVA for Managerial Networking

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.323	1	22.323	4.322	.041
	Residual	361.552	70	5.165		
	Total	383.875	71			

a. Dependent Variable: Competitive Advantage
b. Predictors: (Constant), Managerial Networking

A beta coefficient test of the model was done to establish the expected change in dependent variable for each unit change in the independent variable. The beta coefficient value ($\beta = 0.109$) as shown in Table 4.33 implies that, a unit change in managerial networking led to a corresponding change in competitive advantage at the rate of 0.109. The p value = 0.041 indicates that the change in competitive advantage resulting from a change in managerial networking was significant. Since the p value for the constant $\alpha = 0.156$ was greater than p= 0.05, the effect of the constant on the model was not significant. This implies that much of the variation in competitive advantage was influenced by managerial networking and not the constant.

Table 4.33: Coefficients for Managerial Networking

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	2.551	1.780		1.433	.156
	MN	.109	.052	.241	2.079	.041

a. Dependent Variable: Competitive Advantage

Substituting of coefficients in the model above, resulted in the equation; $Y= 2.551+0.109X_2$.

Hypothesis Ho_2: Suggests that managerial networking does not have a significant influence on competitive advantage in medium and large garment companies in Kenya. Results in Table 4.31, however, indicates a positive but weak relationship between managerial networking and competitive advantage. Further, results of the (ANOVA) as shown in Table 4.32, indicate that the relationship between managerial networking and competitive advantage is highly significant at 95% confidence. The Ho2 is therefore rejected and the alternative hypothesis that, managerial networking has a significant influence on competitive advantage is accepted.

2. Discussion of Results on the Relationship between Managerial Networking and Competitive Advantage

A great deal of research has dissected the role of managerial ties on organizational growth and performance, especially in emerging economies such as Iran (Heirati & O'Cass, 2016), Malaysia (Surin & Wahab, 2020), China (Li, et. al, 2020; Guo, Zhao & Tang, 2020) and Ghana (Boso, Story & Cadogan, 2020). But a careful literature review suggests that this line of research has produced mixed empirical findings, particularly, in relation to the strength and direction of the relationship.

For instance, contrary to the findings of this study, many studies have documented a strong and positive relationship between the various Managerial Networking dimensions and CA; for example, it has been found that managers' ties with customers enhances loyalty and provides valuable market demand information (Boso, Story, & Cadogan, 2020), that close connections with competitor executives facilitates information exchange (Schoonjans, Van Cauwenberge & Vander Bauwhede, 2020; Kasemsap, 2016) and provides information about competitors' behaviors and actions. Moreover, it has been demonstrated that networks generate mutual trust, gives firms external legitimacy (Li, et. al, 2020), endows them with a good reputation, prestige, and reliability

(Batjargal, et al., 2020; Surin, et al, 2016) which encourages network members to exchange key resources while gaining goodwill from customers and potential investors (Heavey, Simsek & Fox, 2022). Further, it has been established that close ties with government officials' helps firms handle institutional barriers and obtain a variety of privileges such as preferential access to valuable market information controlled by governments while encountering fewer bureaucratic delays (Wang & Chung, 2020). These processes of acquiring and exchanging information and resources among network partners effectively and efficiently, drives organizational performance thereby enhancing competitive advantage (Boso, Story, & Cadogan, 2020; Guo, Zhao & Tang, 2020; Kasemsap, 2016; Surin, et al, 2016).

Other studies have advanced the view that MN has a negative influence on CA; Arnoldi and Villadsen (2022), Hung, Wong and Zhang (2022) and Liedong and Rajwani (2018) for instance, found that the process of cultivating business and political ties is often time-consuming and involves large amount of resources; by devoting a large amount of investment to the development of ties, firms have less resources available for long-term strategic planning (White, Fainshmidt & Rajwani, 2018; Trinugroho, 2017). According to Sallai and Schnyder (2019), members in political ties network often have differing interest agendas; whereas the government officials' primary interest is focused on developing their political career, the firms in the business communities seek to secure a desirable economic return (Karabag, Lau & Suvankulov, 2021).

Further, there are numerous empirical works whose findings echoes the results of this study that the relationship between MN and CA is indeed positive, but weak. Such works offers useful clues on how the results of this study may be interpreted. For example, following their survey on the evolving role of managerial ties and firm capabilities in China, Zhou, Li, Sheng and Shao (2021) inferred that, the significant commitment associated with ties with existing business partners prevents firms from recognizing alternative information sources or switching to new, better partners; this over embeddedness according to Zhou, Li, Sheng and Shao (2021), Karhunen, Kosonen, McCarthy and Puffer (2018), and Minh and Hjortsø (2022) creates collective blindness,

reduces the flow of new information, and inhibits innovative ideas, leading to lower performance. Findings by Berger, Herstein, Silbiger and Barnes (2017), and Horak, Klein and Svirina (2018) indicates that the value of managerial ties is conditional on other factors such as organizational characteristics (e.g., firm size and ownership types), market-level variables (e.g., market competition), and industry-level factors (e.g., business sectors and industry growth rates). Stephan, Uhlaner and Stride (2022) contends that the positive relationship between networking and firm's competitiveness tends to decline over time. This is reaffirmed by the institutional theory; the theory posits that, when an emerging economy transitions toward a market-based one (i.e. when national markets and economy develops to higher levels) the role of ties declines, and market-based capabilities come to dominate (Horak, Klein, 2016; Danso, et al, 2016); ties, especially politically related ties, are rendered less critical, because firms simply resort to the market for their factor resources (Estrin, Mickiewicz & Stephan, 2020), turn to legal systems to safeguard their transactions (Horak, 2021), and refer to external auditing firms to obtain legitimacy (Knoke, 2018).

4.7.3 Influence of Innovation on Competitive Advantage in Medium and Large Garment Companies in Kenya

A simple linear regression analysis was undertaken to establish whether innovation had a significant influence on competitive advantage in medium and large garment companies in Kenya, The study hypothesized that; Ho3: Innovation (X_3) does not have a significant influence on competitive advantage in medium and large garment companies in Kenya. For test of the hypothesis, the model; $Y= \beta_0 + \beta_3 X_3 + e$, was fitted. The test was done at 0.05 level of significance. Results of the analysis were as shown in Table 4.34.

Table 4.34: Model Summary for Innovation

Model	R	R Square	Adjusted R	Std. Error of the Estimate
1	.603	.364	.355	0.86833

a. Predictors: (Constant), Innovation

The coefficient (R) of 0.603 as shown in Table 4.34 indicates that there is a strong and positive relationship between innovation and competitive advantage in medium and large garment companies in Kenya. The R^2 of 0.364 suggests that 36.4% of the variation in competitive advantage can be explained by a unit change in innovation. The adjusted R^2 of 0.355 indicates that, when the effect of extraneous variables is excluded from the model, innovation explains for 35.5% of the variation in competitive advantage. The other 64.5% variation is explained by factors not included in the model.

An analysis of variance (ANOVA) was further conducted to test for the significance of the relationship between innovation and competitive advantage. Results of the analysis as shown in Table 4.35, confirms that, the overall regression model achieved a high degree of fit as indicated by an F = 40.047, p=0.000. This result implies that innovation is statistically significant in explaining the variation in competitive advantage in medium and large garment companies in Kenya.

Table 4.35: ANOVA for Innovation

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	139.696	1	139.696	40.047	.000
	Residual	244.179	70	3.488		
	Total	383.875	71			

a. Dependent Variable: Competitive Advantage

b. Predictors: (Constant), Innovation

A beta coefficient test of the model was done to determine the expected change in dependent variable for each unit change in the independent variable. The beta coefficient value (β = 0.582) as shown in Table 4.36 denotes that, a unit change in innovation resulted in a 0.582 change in competitive advantage. The p value = 0.000 indicates that the change in competitive advantage resulting from a change in innovation was highly significant.

Table 4.36: Coefficients for Innovation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5.348	1.839		2.908	.005
	Innovation	.582	.092	.603	6.328	.000

a. Dependent Variable: Competitive Advantage

Substituting of coefficients in the model above, resulted in the equation; $Y= -5.348+0.582X_3$.

Hypothesis Ho_3: Suggests that innovation does not have a significant influence on competitive advantage in medium and large garment companies in Kenya. Results in Table 4.34, however, indicates that there is a strong and positive relationship between innovation and competitive advantage. Further, results of the (ANOVA) as shown in Table 4.35, indicate that the relationship between innovation and competitive advantage is highly significant at 95% confidence level. The Ho3 is therefore rejected and the alternative hypothesis that, innovation has a significant influence on competitive advantage is accepted.

3. Discussion of Results on the Relationship between Innovation and Competitive Advantage

Overall, much of empirical research offers support to the above findings by similarly demonstrating that innovation is an important concept that creates value for companies and sustainable competitive advantage in the complex and rapidly changing business

environment. Zehir, Can & Karaboga (2022) for instance have proven that, firms with higher innovation capabilities are more successful in responding to changing conditions and developing new capabilities for adopting to changes. Semuel, Siagian and Octavia (2017) contends that under intense competitive environment, firms need entrepreneurially oriented individuals or groups in order to innovate new and different products, services, images and processes which cannot be imitated easily by others. This is why differentiation strategies, innovation and entrepreneurial orientation are closely related with each other (Murni, 2017). According to Bustinza, et al. (2019), continuous product improvement through innovation helps extend product lifecycle and achieve economies of scale which creates competitive advantage through cost leadership. Chwastyk and Kołosowski, (2021) cautions that new product development requires more fixed capital investment, but similarly agrees that it offers more opportunities for developing economies of scale and scope. Shan and Jolly (2020) have shown that companies with greater technological innovation capabilities produce higher quality products at competitive prices. Additionally, innovations helps firms lock in existing customers and add new ones through customer engagement (Foroudi, Jin, Gupta, Melewar & Foroudi, 2016; Bustinza, et al, 2019).

Ariu (2016) specifically focuses on R&D (a critical dimension of innovation), and notes that high R&D intensity results in new complex products, and related services which reduces customer uncertainty while increasing firms' resilience. Caner and Tyler (2020) also agrees that R&D intensive portfolios can help firms develop new products, but cautions that the amount of tangible (e.g. financial) and intangible (e.g. effort) resource commitments may increase a firm's financial burden. Li, Maggitti, Smith, Tesluk and Katila (2020), Gopal, Goyal and Netessine and Reindorp (2020), and Nadkarni and Chen (2021) on their part are specifically captivated by new product introduction dimension (NPI) of innovation for which they reveal that NPIs increases the ability of firms to meet new market demands while helping firms establish position in new technological generations. While similarly concurring with the view that regular new product introductions are fundamental to organizational performance and survival, Dash,

Narendran & Gajanand (2016) are equally keen on highlighting its dark side. As per their findings, firms face the challenge of timing product entry decisions; deciding on which products to process through the product development stages in a resource constrained environment is a challenging problem and a risky endeavor.

4.7.4 Influence of Customer Responsiveness on Competitive Advantage in Medium and Large Garment Companies in Kenya

Linear regression analysis was run with the aim of establishing if customer responsiveness had a significant influence on competitive advantage in medium and large garment companies in Kenya. The study hypothesized that; Ho4: Innovation (X_4) does not have a significant influence on competitive advantage in medium and large garment companies in Kenya. To test the hypothesis, the model; $Y= \beta_0 + \beta_4 X_4 + e$, was fitted. The test was done at 0.05 level of significance. Results of the analysis were as shown in Table 4.37.

Table 4.37: Model Summary for Customer Responsiveness

Model	R	R Square	Adjusted R	Std. Error of the Estimate
1	.507	.257	.246	0.91943

a. Predictors: (Constant), Customer Responsiveness

The coefficient (R) of 0.507 as shown in Table 4.37 indicates that there is a moderate positive relationship between customer responsiveness and competitive advantage in medium and large garment companies in Kenya. The R^2 of 0.257 suggests that 25.7% of the variation in competitive advantage can be explained by a unit change in customer responsiveness. An adjusted R^2 of 0.246 implies that customer responsiveness explains for 24.6% of the variation in competitive advantage while 64.5% is explained by other factors not included in the model. The adjusted R^2 reflects the change in competitive advantage when the effect of extraneous variables is excluded from the model.

Further, an analysis of variance (ANOVA) was conducted to test for the significance of the relationship between customer responsiveness and competitive advantage. Results of the analysis as shown in Table 4.38 confirms that, the overall regression model achieved a high degree of fit as reflected by the F = 24.19, p=0.000. This result implies that customer responsiveness is statistically significant in explaining the variation in competitive advantage in medium and large garment companies in Kenya.

Table 4.38: ANOVA for Customer Responsiveness

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	98.608	1	98.608	24.197	.000
	Residual	285.267	70	4.075		
	Total	383.875	71			

a. Dependent Variable: Competitive Advantage
b. Predictors: (Constant), Customer Responsiveness

A beta coefficient test of the model was done to determine the expected change in competitive advantage for each unit change in customer responsiveness. The beta coefficient value (β = 0.637) as shown in Table 4.39 denotes that, a unit change in customer responsiveness resulted in a 0.637 change in competitive advantage. The p value = 0.000 indicates that the change in competitive advantage resulting from a change in customer responsiveness was statistically significant.

Table 4.39: Coefficients for Customer Responsiveness

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.001	3.507		-3.137	.002
	CR	.637	.130	.507	4.919	.000

a. Dependent Variable: Competitive Advantage

Substituting of coefficients in the model above, resulted in the equation; $Y= -1.001+0.637X_4$.

Hypothesis Ho_4: Suggests that customer responsiveness does not have a significant influence on competitive advantage in medium and large garment companies in Kenya. Results in table 4.37, however, indicates a moderate positive relationship between customer responsiveness and competitive advantage. Further, results of the (ANOVA) as shown in table 4.38, indicate that the relationship between customer responsiveness and competitive advantage is highly significant at 95% confidence. The Ho4 is therefore rejected and the alternative hypothesis that, customer responsiveness has a significant influence on competitive advantage is accepted.

4. Discussion of Results on the Relationship between Customer Responsiveness and Competitive Advantage

Research findings on the direct relationship between customer responsiveness and competitive advantage have been mixed, with some studies finding a positive relationship (e.g. Guo & Wang, 2022; Pekovic & Rolland, 2016; Udriyah, Tham & Azam, 2019) and others reporting an inverse or the absence of relationship (e.g. Frambach, Fiss & Ingenbleek, 2016; Joshi, 2016). Notably, however, the findings of this study are in tandem with the dominant view that customer responsiveness is positively associated with competitive advantage.

Following an empirical study on “firms' customer responsiveness and performance” which reported a positive link between the two variables, Pehrsson (2021) concluded that customer responsiveness activity was an effective strategy for the industrial firm to differentiate from competitors, mainly because the intention of CR as a whole is to create superior value in comparison with value created by competitors. Similarly reporting a positive link between the two constructs was Racela’s (2021) study which demonstrated that market-sensing and customer-response capabilities brought valuable market information into the firm, which could be used to stimulate creativity and to respond to market changes. Research has also established that being customer-oriented enhances firm’s competitiveness by directly influencing the customers’ repurchase

intentions (Guo & Wang, 2022; Pekovic & Rolland, 2016; Udriyah, Tham & Azam, 2019).

In studies which specifically focused on the crucial role of manufacturing flexibility (a key element of CR) in achieving competitive advantage, Mishra, Pundir and Ganapathy, (2016) and Brettel, Klein and Friederichsen (2016) discovered that the increasingly heterogeneous markets and shorter product lifecycles provoked the need for companies to provide great product variety, while at the same time maintaining excellent product performance at low costs. Likewise Chan, Ngai and Moon (2017) showed that supply chain agility enabled garment firms reap the dividends of manufacturing flexibility by being able to sense and respond more promptly and strategically to the challenges posed by unstable business environments. Further, studies by Chakravarty, Grewal, and Sambamurthy (2020) and Liu, Song, Cai (2021) suggested that organizational agility (another element of CR) increased a firm's competitiveness by expanding its innovation actions in the form of new products, services, or business and making rapid responses to changes.

Studies suggesting the contrary (negative or absence of significant relationship between CR and CA) have asserted that customers do not always know what they need and that they may lack the foresight to express what they want; as such, depending too much on customers for new ideas merely results in familiar ideas or neglect of a risky but vital technology opportunity (Tinoco & Ambrose, 2017). Other studies suggests that ambiguity in customer opinions can lead to different interpretations and opinions by organizational members which reduces a firm's competitiveness by delaying new product development and product modifications (Rashid & Ullah, 2016). According to some empirical findings, excessive focus on current customer needs can cause firms to overlook newly emerging customer needs thereby decreasing the novelty of a firm's products (Schweitzer, Van den Hende & Hultink, 2019) and a firm's ability to develop market-breakthrough innovations (Frambach, Fiss & Ingenbleek, 2016). Some other studies (e.g. Joshi, 2016) have further implied that directing resources to innovations that

address current customers' needs undermines investments in new technologies that can generate radical product innovations for sustainable competitiveness.

These variations in research conclusions leads this study to speculate that the moderating effects of competitive intensity probably depends on the general sociocultural, economic, and political circumstances that characterize the context in which firms are immersed. Therefore, a full understanding of this phenomenon requires the exploration of different scenarios.

4.7.5 Optimal Model

Pertinent to testing the hypotheses of the study was establishing the joint influence of the predictor variables (knowledge management (KM), managerial networking (MN), innovation (INV) and customer responsiveness (CR), on competitive advantage (CA) in medium and large garment companies in Kenyan. To achieve the forestated objective, a multiple regression analysis was conducted with competitive advantage (CA) as the dependent variable and KM, MN, IN and CR as the independent variables. According to Nathans, Oswald and Nimon (2019), multiple regression analysis allows researchers to answer questions that consider the role(s) that multiple independent variables play in accounting for variance in a single dependent variable. The multiple regression model for this study was thus formulated as follows;

$$Y = \beta o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where;

Y = Competitive Advantage

X_1 = Knowledge Management

X_2 = Managerial Networking

X_3 = Innovation

X_4 = Customer Responsiveness

β_0 = Constant

$\beta_1 - \beta_4$ = Regression coefficient for the independent variables

ε = Error Term

Table 4.40: Model Summary for the Optimal Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.691	.478	.447	0.73045

a. Predictors: (Constant), Knowledge Management (KM), Managerial Networking (MN), Innovation (INV), Customer Responsiveness (CR)

The R value of 0.691, as shown in table 4.40, indicates that there was a strong, positive and linear relationship between the four predictor variables (KM, MN, INV, CR) and the dependent variable (CA). The coefficient of determination (R^2) of 0.478 means that, the four predictor variables can explain for 47.8% variance in the criterion variable (competitive advantage) in medium and large garment companies in Kenya. The adjusted R^2 of 0.447 denotes that the four predictors in exclusion of extraneous variables explains for 44.7% of the variation in competitive advantage, while 55.3% is explained by other factors not included in the model. The foregoing results confirms that knowledge management (KM), managerial networking (MN), innovation (IN) and customer responsiveness (CR) jointly, are determinants of competitive advantage (CA) in medium and large garment companies in Kenya.

Table 4.41: ANOVA for Optimal Model

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	183.450	4	45.863	15.331	.000
	Residual	200.425	67	2.991		
	Total	383.875	71			

a. Dependent Variable: Competitive Advantage
b. Predictors: (Constant), Knowledge Management, Managerial Networking, Innovation, Customer Responsiveness

Further analysis of variance (ANOVA) to test for significance of the model generated an F value = 15.331 and a p value = 0.000 (table 4.41). These results indicate that the model is highly significant in explaining the relationship between the four predictors combined (KM, MN, INV, CR) and the criterion (CA).

Table 4.42: Coefficients for Optimal Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.098	3.116		4.525	.000
	KM	.089	.068	.131	1.307	.196
	MN	.047	.042	.104	1.117	.268
	INV	.437	.095	.453	4.601	.000
	CR	.310	.131	.247	2.363	.021

a. Dependent Variable: Competitive Advantage

A beta coefficient test of the model was conducted to establish the expected change in the criterion variable for each unit change in the predictor variables. The beta coefficients ($\beta = 0.437$, p-value = 0.000), and ($\beta = 0.310$, p-value = 0.021) as presented in table 4.42, implies that each unit change in innovation (INV) and unit change in customer responsiveness (CR) resulted in a 0.473 and 0.310 variation in competitive advantage respectively. Notably, the p values for knowledge management (KM) p = 0.196 and managerial networking (MN) p = 0.268 are greater than p=0.05. This suggests that the variation in competitive advantage (CA) resulting from a unit change in each of

the two predictors (KM and MN) happened by chance, and was therefore not significant. Substituting of coefficients in the model above, resulted in the following equation;

$$Y= 1.098 + 0.089X_1 + 0.047X_2 + 0.437X_3 + 0.310X_4 + \varepsilon$$

Overall, the hypothesis of this study suggested that the predictor variables; knowledge management (KM), managerial networking (MN), innovation (INV) and customer responsiveness (CR) do not have a significant influence on the criterion variable; competitive advantage (CA), in medium and large garment companies in Kenya. Results in table 4.40, however, indicates a strong positive relationship between the four predictors and the criterion. Further, results of the (ANOVA) as shown in table 4.41, indicate that the relationship between the four predictors and the criterion is highly significant at 95% confidence level ($\alpha = 0.05$). The null hypothesis is therefore rejected and the alternative hypothesis that, the four independent variables of the study have a significant influence on the dependent variable is accepted.

4.7.5.1 Determining the Best Predictor of Competitive Advantage

In addition to ascertaining the strength, direction and significance of relationships, the researcher further sought to determine the best predictor of competitive advantage among the four predictor variables. This was achieved through a scrutiny of three regression outputs, namely; the optimal model, the coefficients for optimal model and a summary of simple linear regression outputs.

Table 4.43: Model Summary for the Optimal Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.691[a]	.478	.447	0.73971

Predictors: (Constant), Knowledge Management (KM), Managerial Networking (MN), Innovation (INV), Customer Responsiveness

Table 4.44: Coefficients for Optimal Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.098	3.116		4.525	.000
	KM	.089	.068	.131	1.307	.196
	MN	.047	.042	.104	1.117	.268
	INV	.437	.095	.453	4.601	.000
	CR	.310	.131	.247	2.363	.021

a. Dependent Variable: Competitive Advantage (CA)

Table 4.45: Model Summary for Simple Linear Regression

	R	R Square	Adjusted R Square	Std. Error of the Estimate
KM	.415[a]	.172	.161	2.130
MN	.241[a]	.058	.045	2.273
INV	.603[a]	.364	.355	1.868
CR	.507[a]	.257	.246	2.019

The coefficient R=0.691 for optimal model (table 4.43) is higher than R coefficients for each predictor variable acting independently (simple linear regression table 4.37). Further, the adjusted R^2 =0.447 for multiple regression implies that the four independent variables jointly accounts for a higher percentage of the variation in competitive advantage as compared to each predictor variable acting in isolation (table 4.45). The foregoing confirms the importance of considering the Beta coefficient values for optimal model in determining the best predictor of competitive advantage.

The unstandardized beta coefficients for optimal model for the four predictor variables (table 4.44) suggests that INV with $\beta 3 = 0.437$, p=0.000 accounts for the highest unit change in CA, CR with $\beta 4 = 0.310$, p=0.021 takes the second rank, third is KM with $\beta 1 = 0.089$, p=0.196 and last in the rank is MN with $\beta 2 = 0.047$ and p=0.268. The R and adjusted R^2 results for simple linear regression (table 4.45) support the ranking order generated by the βeta values for multiple regression; INV with R=0.603 and adjusted $R^2 = 0.355$ takes the first rank, followed by CR with R=0.507 and adjusted $R^2 = 0.246$, third is KM with R=0.415 and adjusted $R^2 = 0.161$ and last in the rank is MN with R=0.241 and $R^2 = 0.045$. The result implies that INV explains for 35.5% variation in CA, CR explains for 24.6%, whereas KM and MN (insignificantly) explains for 16.1% and 4.5% respectively.

5. Discussion of Results for Optimal Model

The foregoing findings (i.e. strong, positive and linear relationship for Innovation and Customer Responsiveness: $\beta = 0.437$, p-value = 0.000 and $\beta = 0.310$, p-value = 0.021 respectively; and weak, linear insignificant relationship for Knowledge Management and Managerial Networking: $\beta = 0.089$, p = 0.196 and $\beta = 0.047$, p-value = 0.268 respectively) are in tandem with results of many prior studies (e.g. Wang & Chung, 2020; Mas-Machuca and Costa, 2019; Lee, et. al., 2020; Pangil & Moi Chan; 2021; Byukusenge & Munene, 2017; Obeidat, et al., 2016) but in contradiction with a few others (e.g. Powell and Ambrosini, 2019; Fernández-Pérez, Jose Verdu-Jover & Benitez-Amado, 2020; Dieleman & Boddewyn, 2019); Concurring with the results of this study, findings by Wang and Chung (2020) for instance revealed that customer responsiveness has a positive impact on innovation and ultimately a firm's degree of competitiveness; commitment to customer responsiveness enables firms to acquire the information needed for developing the type of innovation that is required by customers. Wang and Chung (2020) further established that managerial ties (networks) have a weak direct relationship with CA, but a positive moderating role in the customer responsiveness – innovation linkage. Specifically, business ties enhances the relation

between customer responsiveness, inter-functional coordination, innovation and a firm's level of competitiveness.

Byukusenge and Munene (2017) conducted a study on KM and firm performance in Rwanda's medium scale firms and noted that, when controlling for innovation (INV) as a mediator, the direct effect of knowledge management (KM) on business performance (BP) dropped and became insignificant. Obeidat, et al.'s (2016) explorative study on the impact of KM processes (knowledge acquisition, knowledge sharing and knowledge utilization) on innovation and firm performance in Jordanian firms showed that, the aforementioned KM processes have a positive, significant but indirect impact on competitive advantage through innovation. This perharps partly explains why innovation posts a strong linear relationship whereas KM exhibits a weak insignificant relationship when the two criterions are regressed together against CA (Noruzy, et al., 2020). Notably, similar results have been documented elsewhere by Mas-Machuca and Costa (2019), Lee, et. al. (2020) and Pangil and Moi Chan (2021). Also in agreement with the findings of this study are Eggers, Kraus and Covin (2021) who have shown that managerial networking firstly, has a positive effect on radical innovativeness and secondly that networking, customer responsiveness, and technological turbulence have a positive, three-way interactive effect on radical innovativeness and subsequently a significant effect on a firm's level of competitiveness.

Contrary to the results of this study, findings by Powell and Ambrosini (2019) implies that social networks have a negative effect on innovation. Also in disagreement are Fernández-Pérez, Jose Verdu-Jover & Benitez-Amado (2020), whose findings led them to caution about the dual nature of strong managerial ties; they argue that, even though managerial networks lead to better results in some situations, they have a negative effect on some organizational capabilities and output, particularly on innovation. For instance, due to their likelihood to give some firms an unfair advantage over competitors, political ties may dampen a firm's ability to generate creative ideas and commitment to innovation (Boubakri, et al., 2019; Su, Xie & Wang, 2022). Further, political power conflicts and government interventions associated with political networks may disrupt

inter-functional coordination which may lead to an unproductive atmosphere for innovation (Pan, Wei & Yang, 2021, Dieleman & Boddewyn, 2019).

4.7.6 Moderating Influence of Competitive Intensity on the Relationship between Determinants and Competitive Advantage.

a. Moderating Influence of Competitive Intensity on the Relationship between Knowledge Management and Competitive Advantage in Medium and Large Garment Companies in Kenya

In order to establish whether competitive intensity moderated the relationship between knowledge management and competitive advantage, a moderated multiple regression analysis was conducted. The study hypothesized that:

Ho_5 (a): Competitive intensity (X5) does not have a moderating influence on the relationship between knowledge management and competitive advantage

To test the hypothesis, the following models were fitted;

Model 1: $Y= \beta_0 + \beta_1 X_1 + \beta_M M + e$

Model 2: $Y= \beta_0 + \beta_1 X_1 + \beta_M M + \beta_1 M X_1 + e$

Table 4.46 presents the findings for moderating effect of competitive intensity on the relationship between knowledge management and competitive advantage. Model 1 shows that $R = .495$, $R^2 = .245$ and [$F (2, 69) = 11.171$, $p = .000$]. The value of R^2 implies that 24.5% of the variance in competitive advantage can be accounted for by knowledge management and competitive intensity combined, and that the relationship is statistically significant. Model 2 in Table 4.46, shows the results after the interaction term (KM*CI) was included in the model.

The inclusion of the interaction term led to an R^2 change of .074, [$F (1, 68) = 7.367$, $p = 0.008$], implying the presence of a positive moderating effect at statistically significant

levels ($p < .05$). The results specifically means that, moderated knowledge management (KM*CI) resulted in 7.4% variance in competitive advantage, above the variance that was generated by knowledge management and competitive intensity. Generally, the magnitude of change in R^2 is an indicator of the increase in predictive power of a particular variable (Hair, Sarstedt, Hopkins & Kuppelwieser, 2021). It can therefore be concluded that, competitive intensity significantly and positively moderates the relationship between knowledge management and competitive advantage. The ANOVA results in table 4.47 confirms the significance of models 1 and 2 (F=11.171, p=0.000 and F=10.590, p=0.000)

Table 4.46: Model Summary for Moderating Influence of Competitive Intensity on the Relationship between Knowledge Management and Competitive Advantage

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.495[a]	.245	.223	2.050	.245	11.171	2	69	.000
2	.564[b]	.318	.288	1.962	.074	7.367	1	68	.008

a. Predictors: (Constant), Competitive intensity (CI), Knowledge management(KM)
b. b. Predictors: (Constant), CI, KM, KM*CI

Table 4.47: ANOVA for Moderating Influence of Competitive Intensity on the Relationship between Knowledge Management and Competitive Advantage

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	93.897	2	46.948	11.171	.000[a]
	Residual	289.978	69	4.203		
	Total	383.875	71			
2	Regression	122.242	3	40.747	10.590	.000[b]
	Residual	261.633	68	3.848		
	Total	383.875	71			

a. Predictors: (Constant), Competitive intensity (CI), Knowledge management (KM)
b. Predictors: (Constant), CI, KM, KM*CI

Table 4.48: Coefficients for Moderating Influence of Competitive Intensity on the Relationship between Knowledge Management and Competitive Advantage

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.191	2.802		2.566	.012
	KM	.155	.087	.227	1.781	.079
	CI	-.345	.134	-.328	-2.568	.012
2	(Constant)	-8.151	6.256		-1.303	.197
	KM	.947	.303	1.388	3.121	.003
	CI	1.093	.545	1.038	2.005	.049
	KM*CI	.076	.028	-1.212	-2.714	.008

a. Dependent Variable: Competitive Advantage

Model 1 in Table 4.48 indicates that before the introduction of the interaction term, the relationship between knowledge management and CA was insignificant (β= 0.155, p=0.079); The results meant that for each unit increase in knowledge management, there was a positive but insignificant 0.155 unit increase in competitive advantage, given that

competitive intensity was held constant. Competitive intensity, on the other hand, had a significant but negative influence on CA ($p = 0.012$; $\beta = -0.345$). The beta coefficient for competitive intensity (-.345) captures the variation in competitive advantage as a result of a unit change in competitive intensity, given that knowledge management is held constant.

Model 2 in Table 4.48 shows the details of the inclusion of the interaction term into the model. The relationship between competitive intensity and CA was significantly and positively strengthened from ($\beta = -0.345$, $p = 0.012$) to ($\beta = 1.093$, $p=0.049$). The model also indicates a significant relationship between moderated knowledge management (KM*CI) and CA ($\beta = 0.076$, $p=0.008$). Upon the substitution of coefficients in models 1 and 2, the following equations were obtained;

Model 1: $Y= 7.191+0.155X_1-0.345M$

Model 2: $Y= -8.151+0.947X_1+1.093M+0.076X_1M$

In view of the R^2 change of 0.074, $p=0.008$, and beta coefficient value for the interaction term (KM*CI); $\beta = 0.076$, $p=0.008$, it can be concluded that competitive intensity has a significant and positive moderating effect on the relationship between knowledge management and competitive advantage.

6. Discussion of Results on the Moderating Influence of Competitive Intensity on the Relationship between Knowledge Management and Competitive Advantage

Some of previous studies (e.g. Long & You, 2021, Sawyerr & Tan, 2022; Ng'ang'a, Lagat, & Makomere, 2016) posit that a high degree of competitive intensity does not moderate or has a negative moderating effect on the relationship between knowledge management and competitive advantage. The findings in this research that competitive intensity positively moderates the aforementioned relationship differs from such conclusions, but reflects some similar views in recent studies; Findings by Griffith, Kiessling and Dabic, (2019) have shown that as competitive intensity increases, firms

with adequate competitor knowledge tend to position their market offerings more appropriately and to formulate effective competitive action. Kmieciak's and Michna's (2018) findings offers a related explanation by demonstrating that knowledge oriented firms are able to exert their strengths against competitors' weaknesses, quash competitors' strengths through differentiation, and absorb competitors' uniqueness through imitation. Thus, with better knowledge management capabilities (Theodosiou, Kehagias & Katsikea, 2019), a firm can attain and use market knowledge more productively, leading to increased competitiveness and above normal performance in highly competitive environments. Sharma and Singh (2019), and Daghfous, Ahmad and Angell (2020) supports the foregoing logic but highlights the necessity for firms to assess the relative effect of competitive environment in relation to the need for greater knowledge management capabilities; from their point of view, it may be ill-advised for a firm to impose standardized levels of knowledge management to all forms and levels of competitive intensity. This perhaps partly explains some of the contradictory findings indicating an insignificant or a negative moderating effect of CI on the relationship between KM and CA. Nevertheless, the conventional explanation for a negative moderating effect is that, a high degree of competitive intensity leads to environmental uncertainty which in turn leads to drastic changes in technological environment, market, and demand for products; as a consequence, many firms (despite having greater KM capabilities) are therefore unable to swiftly gather the necessary combination of resources to gain leverage against competitors' strengths (Long & You, 2021; Yoo, Sawyerr & Tan, 2022; Ng'ang'a, Lagat, & Makomere, 2016).

b. Moderating Influence of Competitive Intensity on the Relationship between Managerial Networking and Competitive Advantage in Medium and Large Garment Companies in Kenya

In order to ascertain whether competitive intensity has an influence on the relationship between managerial networking and competitive advantage, a moderated multiple regression analysis was conducted. The study hypothesized that;

Ho5 (b): Competitive intensity (X_5) does not have a moderating influence on the relationship between managerial networking and competitive advantage

To test the hypothesis, the following models were fitted;

Model 1: $Y= \beta_0 + \beta_2 X_2 + \beta_M M + e$

Model 2: $Y= \beta_0 + \beta_2 X_2 + \beta_M M + \beta_2 M X_2 + e$

Table 4.49 presents the findings for moderating effect of competitive intensity on the relationship between managerial networking and competitive advantage. Model 1 shows that R = 0.499, R^2 = 0.249 and [F (2, 69) = 11.461, p = .000]. The value of R^2 implies that 24.9% of the variance in competitive advantage can be accounted for by managerial networking and competitive intensity, and that the relationship is statistically significant. Model 2 in Table 4.49, shows the results after the interaction term (MN*CI) was included in the model.

The inclusion of the interaction term led to an R^2 change of 0.051, [F (1, 68) = 4.982, p = 0.029], implying the presence of a positive moderating effect at statistically significant levels ($p < .05$). This results indicates that, the moderating effect of competitive intensity resulted in 5.1% variance in competitive advantage, above the variance generated by managerial networking and competitive intensity. Since the degree of change in R^2 is a measure of the increase in predictive power of a particular independent variable(s), it can thus be concluded that, competitive intensity significantly moderates the relationship between managerial networking and competitive advantage. The ANOVA results in table 4.50 further confirms the significance of models 1 and 2 (F=11.461, p=0.000 and F=9.742, p=0.000)

Table 4.49: Model Summary for Moderating Influence of Competitive Intensity on the Relationship between Managerial Networking and Competitive Advantage

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.499[a]	.249	.228	2.044	.249	11.461	2	69	.000
2	.548[b]	.301	.270	1.987	.051	4.982	1	68	.029

a. Predictors: (Constant), Competitive intensity (CI), Managerial networking (MN)
b. Predictors: (Constant), CI, MN, MN*CI

Table 4.50: ANOVA for Moderating Influence of Competitive Intensity on the Relationship between Managerial Networking and Competitive Advantage

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	95.725	2	47.862	11.461	.000[a]
	Residual	288.150	69	4.176		
	Total	383.875	71			
2	Regression	115.395	3	38.465	9.742	.000[b]
	Residual	268.480	68	3.948		
	Total	383.875	71			

a. Predictors: (Constant), Competitive intensity (CI), Managerial networking (MN)
c. Predictors: (Constant), CI, MN, MN*CI

Table 4.51: Coefficients for Moderating Influence of Competitive Intensity on the Relationship between Managerial Networking and Competitive Advantage

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.392	2.122		3.955	.000
	MN	.090	.047	.200	1.905	.061
	CI	-.463	.110	-.439	-4.192	.000
2	(Constant)	27.647	8.870		3.117	.003
	MN	-.464	.252	-1.027	-1.838	.017
	CI	-2.227	.798	-2.114	-2.792	.007
	MN*CI	.051	.023	1.993	2.232	.029

a. Dependent Variable: Competitive Advantage

Model 1 in Table 4.51 shows that managerial networking was statistically insignificant (p=0.061; β= 0.090); The results implies that for each unit increase in managerial networking, there was an insignificant 0.090 unit increase in competitive advantage, given that competitive intensity was held constant. Competitive intensity was however, statistically significant (p = 0.000; β = -0.463). The Beta coefficient for competitive intensity (-0.463) captures the variation in competitive advantage as a result of a unit change in competitive intensity, given that managerial networking is held constant.

Model 2 in Table 4.51 shows the details of the inclusion of the interaction term into the model. Managerial networking was found to be statistically significant (p=0.017, β= -0.464). Competitive intensity was found to be significant (p= -2.227, β =.007), and the interaction term (MN*CI) was also found to be statistically significant (p= 0.029, β = 0.051). Upon the substitution of coefficients in models 1 and 2, the following equations were obtained;

Model 1: $Y= 8.392+0.090X_2-0.463M$

Model 2: $Y= 27.647-0.464X_2-2.227M+0.051X_2M$

On the basis of the R^2 change of .051 p=0.029 (table 4.50) and beta coefficient for interaction term (β=.051) in table 4.51, it was concluded that, competitive intensity has a positive moderating influence on the relationship between managerial networking and competitive advantage.

Discussion of Results on the Moderating Influence of Competitive Intensity on the Relationship between Managerial Networking and Competitive Advantage

The foregoing findings (i.e. that competitive intensity has a positive moderating effect) are somewhat interesting, considering that the bulk of empirical studies (e.g. Adner, Oxley & Silverman, 2020; Muzamil & Kaur, 2021; Wang & Chung, 2020; Klimas, 2022; Yang & Yang, 2019; Tsai and Hsu, 2021) have produced abundant evidence suggesting the contrary (i.e. negative moderating effect). Nevertheless, there are a few study findings which mirrors the findings of this study (positive moderating effect); for instance, following their study on social capital and the economic performance of businesses in Spain, Hernández-Carrión, Camarero-Izquierdo & Gutiérrez-Cillán (2017) found that the social capital of firms which face high levels of rivalry had a greater impact on performance than those anticipating low rivalry; the study concluded that the executives probably felt they needed to seize and utilize network resources effectively in order to counter the moves of rival firms. Hoppner, Griffith and White (2022) posits that, close ties with competitors offers opportunities to predict potential competitive behaviors and counter environmental shock as business rivalry intensifies. Findings by Hernández-Carrión, Camarero-Izquierdo & Gutiérrez-Cillán (2017) further indicates that under high competitive intensity, a manager's personal networks offers secure support, which is more difficult to find in other networks such as institutional or professional. Studies by Ebbers (2021), Rasouli et al. (2016), and Ju and Gao (2017) suggests that when an industry is characterized by aggressive business practices, price rivalry, or the continual coming and going of competitors, the firms' relationships with their customers and suppliers provides them with a greater ability to adapt to market changes.

Remarkably however, the many studies suggesting the contrary (i.e. that competitive intensity has a negative moderating effect on managerial networking), carries arguments that are equally logical. Some studies (e.g. Tsai and Hsu, 2021; Yang & Yang, 2019) for instance, have indicated that under high competitive intensity, firms are less likely to have a full understanding of the value of resources accessed through business ties as they are more concerned about the risk of resource exchange. Other studies (e.g. Pratono & Mahmood, 2021; Adner, Oxley & Silverman, 2020; Klimas, 2022) have shown that regardless of the levels of an industry's competitive intensity, firms belonging to networks are reluctant to form new business relationships due to the lock-in effect derived from network inertia; such firms are thus likely to miss out on potential differentiation and efficiency generating resources which are the cornerstones of competitive advantage (Muzamil & Kaur, 2021). Additionally, there are those studies (Martin & Javalgi, 2016; Pan, Wei and Yang, 2021) suggesting that under highly competitive environments, network partners have difficulties monitoring one another which hinders inter-partner resource exchange activities and hence the partners' levels of competitiveness. Furthermore, some studies (Chung, et al, 2016; Wang, Jiang, Yuan, & Yi, 2020) have shown that competitive intensity dampens the effect of political ties on the network partners' resource acquisition; in other words, it is difficult for ties with government officials to directly provide resources related with market change (e.g., knowledge about changing customer demand and information about potential competitive behaviors) which are vital in dealing with unexpected changes in highly competitive environments (Martin & Javalgi, 2016).

Still, there is a handful of studies advancing a third perspective that it is not so much about the entire array of networks that a firm subscribes to, but more so about the nature of each tie which determines the nature of the moderating effect which competitive intensity is bound to take. According to Su, et al., (2017) and Stam, Arzlanian and Elfring (2021) for example, business ties which are in nature more market-embedded, may provide valuable market resources and diverse heterogeneous knowledge for firms, helping them grasp changing market needs rapidly and predict competitors' behaviors

accurately. In contrast, political ties tend to benefit firms indirectly, such as pushing collaborations (Monferrer, Blesa & Ripollés, 2022) and overcoming institutional barriers (Barnes, Leonidou, Siu & Leonidou, 2022). In this sense, political ties may play a limited role in helping firms handle market change since these ties are not deeply embedded in the market (Zhou, et al, 2021). It is under this backdrop that some scholars expects the moderating effects for business ties and political ties to be different due to the separate functions and characteristics of the two types of ties (Wang, et al, 2020; Stam, Arzlanian, & Elfring, 2021; Li, et al, 2021).

d. Moderating Influence of Competitive Intensity on the Relationship between Innovation and Competitive Advantage in Medium and Large Garment Companies in Kenya

To determine whether competitive intensity has a moderating influence on the relationship between innovation and competitive advantage in Kenya's garment companies, a moderated multiple regression analysis was conducted. The study hypothesized that:

Ho5 (c): Competitive intensity (X_5) does not have a moderating influence on the relationship between innovation and competitive advantage

To test the hypothesis, the following models were fitted;

Model 1: $Y= \beta_0 + \beta_3 X_3 + \beta_M M + e$

Model 2: $Y= \beta_0 + \beta_3 X_3 + \beta_M M + \beta_3 M X_3 + e$

Table 4.52 shows the findings for moderating effect of competitive intensity on the relationship between innovation and competitive advantage. Model 1 shows an $R = 0.651$, $R^2 = 0.424$ and [$F (2, 69) = 25.383$, $p = 0.000$]. The R^2 implies that 42.4% of the variance in competitive advantage can be accounted for by innovation and competitive intensity, and that the influence is statistically significant (p=0.000). Model 2 in Table

4.52, shows the results after the interaction term (INV*CI) was added into the model. The inclusion of the interaction term led to an R^2 change of 0.015, [F (1, 68) = 1.833] and made the model insignificant [p = 0.180]. The ANOVA results in table 4.53 confirms that models 1 and 2 (F=25.383, p=0.000 and F=17.738, p=0.000) were all statistically significant in explaining the moderating influence of competitive intensity on the relationship between innovation and competitive advantage.

Table 4.52: Model Summary for Moderating Influence of Competitive Intensity on the Relationship between Innovation and Competitive Advantage

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.651[a]	.424	.407	1.790	.424	25.383	2	69	.000
2	.663[b]	.439	.414	1.780	.015	1.833	1	68	.180

a. Predictors: (Constant), Competitive Intensity (CI), Innovation (INV)

b. Predictors: (Constant), CI, INV, INV*CI

Table 4.53: ANOVA for Moderating Influence of Competitive Intensity on the Relationship between Innovation and Competitive Advantage

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	162.717	2	81.359	25.383	.000[a]
	Residual	221.158	69	3.205		
	Total	383.875	71			
2	Regression	168.523	3	56.174	17.738	.000[b]
	Residual	215.352	68	3.167		
	Total	383.875	71			

a. Predictors: (Constant), Competitive Intensity (CI), Innovation (INV)

b. Predictors: (Constant), CI, INV, INV*CI

Table 4.54: Coefficients for Moderating Influence of Competitive Intensity on the Relationship between Innovation and Competitive Advantage

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.245	2.595		-.094	.925
	INV	.483	.095	.501	5.063	.000
	CI	-.279	.104	-.265	-2.680	.009
2	(Constant)	-12.050	9.092		-1.325	.189
	INV	1.076	.448	1.116	2.402	.019
	CI	.764	.778	.726	.983	.329
	INV*CI	-.053	.039	-.952	-1.354	.180

a. Dependent Variable: Competitive Advantage

The beta coefficients for model 1 in Table 4.54 shows that innovation was statistically significant (p= 0.000; β= 0.483) indicating that each unit increase in innovation, led to 0.483 unit increase in competitive advantage, given that competitive intensity was held constant. Competitive intensity was also statistically significant (p = 0.009; β = -.279) suggesting that each unit increase in competitive intensity led to 0.279 unit decrease in competitive advantage, given that innovation was held constant.

Model 2 in Table 4.54 shows the details of the inclusion of the interaction term into the model. Innovation was found to be statistically significant (β= 1.076, p=0.019), implying a 1.076 increase in competitive advantage for each unit increase in innovation. The influence of competitive intensity and the interaction term (X_3*M) were however statistically insignificant at (β = 0.764, p= 0.329) and (β = -0.053, p= 0.180) respectively. Upon the substitution of coefficients in models 1 and 2, the following equations were obtained;

Model 1: $Y= -0.245+0.483X_3-0.279M$

Model 2: $Y= -12.050+1.076X_3+0.764M-.053X_3M$

Based on the observation that the interaction term had a negative influence on competitive advantage (β = -.053) and the fact that it turned the model insignificant (from p=0.000 to p=0.18), it was therefore concluded that competitive intensity has a negative moderating influence on the relationship between innovation and competitive advantage. To put it differently, the results implied that competitive intensity weakened the relationship between innovation and competitive advantage.

7. Discussion of Results on the Moderating Influence of Competitive Intensity on the Relationship between Innovation and Competitive Advantage

These findings are similar to many prior studies that also found that competitive intensity weakens the positive link between innovation and competitive advantage. In an empirical research on "cross-functional collaboration, competitive intensity, knowledge integration mechanisms, and new product performance", Tsai and Hsu (2021) for instance noted that the time pressure caused by heavy market competition increased the propensity for conflicts between the R&D and marketing personnel, based on their different time horizons and orientations. Subsequently, these conflicts compromised marketing, technical, and competitive intelligence activities, thereby reducing the chance for finding creative solutions (Tsai and Hsu, 2021; DeChurch, Mesmer-Magnus & Doty, 2020; Klotz, Hmieleski, Bradley & Busenitz, 2021). Moyano-Fuentes and Martínez-Jurado, (2016) correspondingly, demonstrated that under mild market competition, organizations faces less time pressure, and have sufficient time to integrate diverse perspectives of different personnel and make decisions that are more rational in carrying out new product development (NPD). Findings by Elbanna (2022) indicates that, in highly turbulent competitive environments, NPD project teams tends to rely more on intuitive judgments and experience which are counterproductive to creative team decision making for innovation performance. Yam and Chan (2022), have proven that low competitive intensity allows new product development to benefit more from the exchange of in-depth and proprietary information through cross-functional activities than does high competitive intensity. Findings by Kettunen, Grushka-Cockayne, Degraeve and De Reyck (2022) further, indicates that extreme market competition

alleviates the need to make unplanned allocation of resources, which ought to be channeled towards the acquisition of additional distinctive competencies. Related to the foregoing are the findings by Thomas (2021) and, Wilden and Gudergan (2022) which indicates that extreme market competition and turbulence creates considerable uncertainty and unpredictability for NPD managers; this ultimately leads to risky and uncompetitive investments and decisions.

e. Moderating Influence of Competitive Intensity on the Relationship between Customer Responsiveness and Competitive Advantage in Medium and Large Garment Companies in Kenya

In order to establish whether competitive intensity has an effect on the relationship between customer responsiveness and competitive advantage, a moderated multiple regression analysis was run. The study hypothesized that:

Ho_5 (d): Competitive intensity (X_5) does not have a moderating influence on the relationship between customer responsiveness and competitive advantage

To test the hypotheses, the following models were fitted;

Model 1: $Y= \beta_0 + \beta_4 X_4 + \beta_M M + e$

Model 2: $Y= \beta_0 + \beta_4 X_4 + \beta_M M + \beta_4 M X_4 + e$

Table 4.55 shows the findings for moderating effect of competitive intensity on the relationship between customer responsiveness and competitive advantage. Model 1 shows that $R = 0.585$, $R^2 = .343$ and $[F (2, 69) = 17.978, p = .000]$. The value of R^2 implies that 34.3% of the variance in competitive advantage can be accounted for by customer responsiveness and competitive intensity, and that the relationship is statistically significant. Model 2 in Table 4.55, shows the results after the interaction term (CR*CI) was included in the model.

The inclusion of the interaction term led to an R^2 change of 0.044, [F (1, 68) = 4.843, p = 0.031], indicating the presence of a positive moderating effect at statistically significant levels ($p < .05$). This results means that, the moderating effect of competitive intensity resulted in 4.4% variance in competitive advantage, above the variance generated by customer responsiveness and competitive intensity. Since the degree of change in R^2 is a measure of the increase in predictive power of a given independent variable(s), it can therefore be concluded that, competitive intensity positively and significantly moderates the relationship between customer responsiveness and competitive advantage. The ANOVA results in table 4.56 indicates that models 1 and 2 were all significant (F=17.978, p=0.000 and F=14.267, p=0.000) in explaining the moderating influence of competitive intensity on the customer responsiveness-competitive advantage relationship.

Table 4.55: Model Summary for Moderating Influence of Competitive Intensity on the Relationship between Customer Responsiveness and Competitive Advantage

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.585[a]	.343	.324	1.912	.343	17.978	2	69	.000
2	.622[b]	.386	.359	1.861	.044	4.843	1	68	.031

a. Predictors: (Constant), Competitive Intensity (CI), Customer Responsiveness (INV)
b. Predictors: (Constant), CI, CR, CR*CI

Table 4.56: ANOVA for Moderating Influence of Competitive Intensity on the Relationship between Customer Responsiveness and Competitive Advantage

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	131.506	2	65.753	17.978	.000[a]
	Residual	252.369	69	3.658		
	Total	383.875	71			
2	Regression	148.285	3	49.428	14.267	000[b]
	Residual	235.590	68	3.465		
	Total	383.875	71			

a. Predictors: (Constant), Competitive Intensity (CI), Customer Responsiveness (INV)
b. Predictors: (Constant), CI, CR, CR*CI

Table 4.57: Coefficients for Moderating Influence of Competitive Intensity on the Relationship between Customer Responsiveness and Competitive Advantage

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.352	4.188		-.800	.426
	CR	.492	.132	.392	3.732	.000
	CI	-.331	.111	-.315	2.999	.004
2	(Constant)	-38.967	16.689		2.335	.023
	CR	1.771	.595	1.409	2.976	.004
	CI	2.838	1.444	2.694	1.965	.003
	CR*CI	.114	.052	-2.809	-2.201	.031

a. Dependent Variable: Competitive Advantage

The beta coefficients in Model 1 (Table 4.57) shows that customer responsiveness was statistically significant (p= 0.000; β= 0.492); The results implies that for each unit increase in customer responsiveness, there was a 0.492 unit increase in competitive advantage, given that competitive intensity was held constant. Competitive intensity was also statistically significant (p = 0.004; β = -0.331). The Beta coefficient for competitive intensity (-0.331) denotes that, each unit increase in competitive intensity resulted in -0.331 unit decrease in competitive advantage, given that customer responsiveness was held constant.

Model 2 in Table 4.57 shows the details of the inclusion of the interaction term into the model. Customer responsiveness was found to be statistically significant (p=0.004, β= 1.771). Competitive intensity was found to be significant (p= 2.838, β =0.003), and the interaction term (CR*CI) was also statistically significant (p= 0.031, β = -0.114). Upon the substitution of coefficients in models 1 and 2, the following equations were obtained;

Model 1: $Y= -3.352+.492X_4-.331M$

Model 2: $Y= -38.967-1.771X_4+2.838M-0.114X_4M$

Based on the R-Square change of 4.4% at p = .031 and the beta coefficient for the interaction term (β=.114) the study concluded that there was a positive and statistically significant moderating effect of competitive intensity on the relationship between customer responsiveness and competitive advantage.

8. Discussion of Results on the Moderating Influence of Competitive Intensity on the Relationship between Customer Responsiveness and Competitive Advantage

Similar to findings of this study, most researchers have found a positive moderating effect of competitive intensity on the customer responsiveness – competitive advantage relationship. Celuch and Kasouf (2022) for example proposes a positive moderating effect reasoning that, in highly competitive industries, customer orientation enables firms to understand their environment and respond properly by taking advantage of opportunities and avoiding threats. Pehrsson (2021) has shown that emphasizing a differentiation strategy of customer responsiveness equips firms to achieve a competitive advantage and high performance levels owing to the greater knowledge of customer needs and the reputation it builds. Findings by Wei, Song and Wang (2017) indicates that a firm's strategy in a highly competitive industry is often more oriented towards efficiency, such as low cost, high speed and reliable quality; thus as competition increases, firms may prefer to leverage manufacturing flexibility to improve efficiency;

competitive intensity therefore increases the positive relationship between manufacturing flexibility and a firm's competitiveness. According to Ruzgar, Kocak & Ruzgar (2022), the ability to quickly respond to current customer needs becomes more important for a firm that operates within a highly competitive industry; under such circumstances, learning and problem solving in current market domains made possible by enhanced absorptive capacity and competence in those areas can help a firm achieve better product performance. Andotra and Gupta, 2016) asserts that, highly competitive environments requires firms to increase their competitiveness through customer focused initiatives such as extending markets for their products, adding new products to their lines and catering to the needs of new sets of customers.

Despite the foregoing findings and their support for the results of this study, a closer empirical review suggests that the moderating role of competitive intensity in the relationship between customer responsiveness and competitive advantage is indeed somewhat inconclusive. González-Benito, González-Benito and Muñoz-Gallego (2021) for instance have noted that a successful customer responsiveness implementation could require too much effort and resources if competitive intensity is high. This argument is in line with Maroofi (2020), Wang, Zeng, Di Benedetto and Song (2020), and Foreman, Donthu, Henson and Poddar (2021) who have observed that competitive intensity not only requires more resources to implement customer-oriented attitudes and behaviors, but also increases the risk of failure, distracts firms' attention from other more relevant activities, obstructs customer satisfaction, and damages the firm's image and reputation thereby diluting a firm's competitive edge. González-Benito, González-Benito and Muñoz-Gallego (2021) argues that higher competitive intensity might obstruct proper implementation of customer focused initiatives and dissipate customer orientation's favorable effect on performance. Other studies (e.g. Lengler, Sousa, & Marques, 2020; Li & Liu, 2021) have concluded that competitive intensity has no moderating effect on the customer responsiveness – competitive advantage relationship.

9. **Overall Moderating Influence of Competitive Intensity on the Relationship between Determinants and Competitive Advantage**

In order to ascertain the overall effect of competitive intensity on the relationship between the dependent and independent variables, a moderated multiple regression model was generated. The study hypothesized that:

Ho5 (e): Competitive intensity (X_5) does not have a moderating influence on the relationship between determinants and competitive advantage.

Model 1: $Y= \beta_0 + \beta_1X_1+ \beta_2X_2+ \beta_3X_3+ \beta_4X_4+ \beta_MM + e$

Model 2: $Y= \beta_0 + \beta_1X_1+ \beta_MM + \beta_1MX_1+ \beta_2X_2+ \beta_MM + \beta_2MX_2+ \beta_3X_3+ \beta_MM + \beta_3MX_3+ \beta_4X_4+ \beta_MM + \beta_4MX_4+e$

Table 4.58 presents the results of the moderating influence of competitive intensity on the relationship between the four predictor variables (knowledge management, managerial networking, innovation and customer responsiveness) and the criterion variable (competitive advantage. Model 1 in Table 4.58 shows that R = 0.691, R^2 = 0.478 and p = 0.000. R^2 value means that 47.8% of the variance in competitive advantage can be accounted for by the predictor variables.

Model 2 in Table 4.58, presents the results after the introduction of the overall interaction terms (Xi*M). The results shows that the inclusion of the interaction terms resulted in an R^2 of .628 and p = 0.001, revealing the presence of a moderating effect which is positive and statistically significant. It can therefore be concluded that, competitive intensity significantly moderates the relationship between the four independent variables (KM, MN, IN, CR) and the dependent variable (CA). The ANOVA results in table 4.59 implies that models 1 and 2 were all statistically significant (F=15.331, p=0.000 and F=11.631, p=0.000).

Table 4.58: Model Summary for Overall Moderating Influence of Competitive Intensity on the Relationship between Determinants and Competitive Advantage

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig.
1	.691[a]	.478	.447	.73045	.000
2	.792[b]	.628	.574	1.518	.000

a. Predictors: (Constant), Knowledge management (KM), Managerial networking (MN), Innovation (INV), Customer responsiveness (CR)
b. Predictors: (Constant), CI, KM, MN, INV, CR, KM*CI, MN*CI, INV*CI, CR*CI

Table 4.59: ANOVA for Overall Moderating Influence of Competitive Intensity on the Relationship between Determinants and Competitive Advantage

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	183.450	4	45.863	15.331	.000[a]
	Residual	200.425	67	2.991		
	Total	383.875	71			
2	Regression	241.083	9	26.787	11.631	.000[b]
	Residual	142.792	62	2.303		
	Total	383.875	71			

a. Predictors: (Constant), Knowledge management (KM), Managerial networking (MN), Innovation (INV), Customer responsiveness (CR)
b. Predictors: (Constant), CI, KM, MN, INV, CR, KM*CI, MN*CI, INV*CI, CR*CI

Table 4.60: Coefficients for Overall Moderating Influence of Competitive Intensity on the Relationship between Determinants and Competitive Advantage

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.098	3.116		4.525	.000
	KM	.089	.068	.131	1.307	.196
	MN	.047	.042	.104	1.117	.268
	INV	.437	.095	.453	4.601	.000
	CR	.310	.131	.247	2.363	.021
2	(Constant)	-25.968	15.973		-1.626	.109
	KM	.995	.342	1.459	2.910	.005
	MN	-.438	.201	-.971	-2.181	.033
	INV	-1.310	.673	-1.358	-1.948	.056
	CR	2.017	.820	1.604	2.458	.017
	CI	1.239	1.355	1.176	.914	.364
	KM*CI	.085	.031	-1.355	-2.723	.008
	MN*CI	-.044	.018	1.703	2.379	.020
	INV*CI	-.146	.058	2.627	2.528	.014
	CR*CI	.352	.071	-3.682	-2.121	.038

a. Dependent Variable: competitive advantage

Model 1 in Table 4.60 shows the beta coefficient results of multiple regression analysis before the introduction of the interaction term. The study findings suggests that, innovation (X3) and customer responsiveness (X4), generated a statistically significant variance in competitive advantage (β=0.437, p=0.000 and β=0.310, p=0.021, respectively), whereas knowledge management(KM) and managerial networking(MN) had a statistically insignificant influence on competitive advantage (β=0.089, p=0.196 and β=0.310, p=0.021, respectively).

Following the introduction of the interaction terms (Xi*M), the influence of knowledge management (KM) on competitive advantage (in terms of beta coefficient weights) positively and significantly increased to β=0.085, p=0.008, the influence of managerial networking (MN) on competitive advantage changed from insignificant (β=0.047, p=0.268) to negative (β= -0.044, p=0.020), the influence of innovation (INV) on

competitive advantage also changed from positive (β=0.437, p=0.000) to negative (β= -.146, p=0.014), whereas the effect of customer responsiveness (CR) on competitive advantage positively increased from β=0.284, p=0.033 to β= .310, p=0.021. Considering the overall R^2 change from .478, p=0.000 to .628, p=000 it can be concluded that, competitive intensity has a positive moderating effect on the relationship between the four predictor variables and the dependent variable (CA).

10. Discussion of Results for Overall Moderating Influence of Competitive Intensity on the Relationship between Determinants and Competitive Advantage

A considerable proportion of existing research offers support to the overall findings of this study (that competitive intensity positively moderates the relationship between the independent variables - KM, MN, INV and CR - and the dependent variable – CA), and further reveals the nature of the interplay among the predictor variables within the overall moderating model.

One of the key findings in this study was that in addition to positively and significantly moderating the overall relationship between the predictor variables (KM, MN, INV & CR) and the criterion (CA), competitive intensity positively and significantly moderated the relationship between knowledge management and competitive advantage. These results are consistent with earlier empirical findings by Rass, Dumbach, Danzinger, Bullinger and Moeslein (2020) which found that, comprehensive managerial networks (MN) across organizational boundaries provided access to knowledge and improved knowledge management (KM), while helping firms embrace competitor orientation. This in turn enhanced competitive advantage (CA) under vigorous competitive intensity (Bayat & Hamdi, 2017).

In addition to giving credence to the overall results of this study, earlier research by Wang and Chung (2020), Racela (2021), Wang, Zhao and Voss (2016) further helps shed light on why competitive intensity moderates, both positively and significantly, the relationship between customer responsiveness (CR) and competitive advantage as

postulated in this study; results of their research work showed that, the effect of CR on competitive advantage was not direct but instead was via innovation (INV); by integrating INV with CR, firms took a more proactive perspective in meeting market responses or customer needs. Thus, as competitive intensity (CI) increased, the proactive perspective often led firms to take an offensive strategy such as aiming to be the first to market with a new product. This ultimately increased the firms' competitive position.

The findings in this research suggesting that competitive intensity converts the relationship between innovation and competitive advantage from positive to negative (from $\beta = .408$, $p=.000$ to $\beta = -.146$, $p=.014$) echoes earlier findings by Yang and Yang (2019) and Tsai and Hsu (2021) where, intense competitive intensity was found to result in the adoption of reactive approaches, which shifted a firm's attention from new product innovation towards a focus on crafting responses to competitors' actions. These results however, contradicts Yildiz's and Sayin's (2019) which found competitive intensity to have a positive moderating effect on product innovation performance in the textile sector. The fact that the relationship between innovation and competitive advantage became negative may further be explained by the interplay between innovation and managerial networking constructs within the overall moderating model; Muzamil and Kaur (2021) for instance have shown that relying on political ties (a component of managerial networking) may eventually reduce the firm's intention to create its own competitive advantages through innovation. These findings are further supported by Wang's and Chung's (2020) in which strong political ties were found to correspond with strong government intervention and influence, which often disrupted a firm's innovation development.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings made in chapter four, the resultant conclusions and recommendations. The recommendations are drawn from the conclusions. The conclusions and the recommendations are categorized based on the key objectives that formed the basis of the study. Also included in this chapter are suggestions for further research.

5.2 Summary of Findings

The general objective of this study was to investigate the determinants of competitive advantage in medium and large garment companies in Kenya. Specifically, the study sought to determine the influence of knowledge management, managerial networking, innovation and customer-responsiveness on competitive advantage in medium and large garment companies in Kenya. Further, the study sought to establish the moderating influence of competitive intensity on the relationship between the dependent and the independent variables of the study.

5.2.1 Influence of Knowledge Management on Competitive Advantage in Medium and Large Garment Companies in Kenya

The first specific objective of the study was to determine the influence of knowledge management on competitive advantage in medium and large garment companies in Kenya. This study showed that the two constructs had a moderate, positive and significant association. The null hypothesis was rejected and the alternative hypothesis that, knowledge management has a significant influence on competitive advantage was accepted.

5.2.2 Influence of Managerial Networking on Competitive Advantage in Medium and Large Garment Companies in Kenya

On the relationship between managerial networking and competitive advantage in medium and large garment companies in Kenya, this study found that there was a weak but positive and significant link between the two variables. The null hypothesis was therefore rejected and the alternative hypothesis accepted.

5.2.3 Influence of Innovation on Competitive Advantage in Medium and Large Garment Companies in Kenya

The study revealed that there was a statistically significant (positive and strong) linear relationship between innovation and competitive advantage in medium and large garment companies in Kenya. The null hypothesis was therefore rejected and the alternative hypothesis that innovation has a significant influence on competitive advantage was accepted.

5.2.4 Influence of Customer Responsiveness on Competitive Advantage in Medium and Large Garment Companies in Kenya

The study found a statistically significant moderate, positive and linear relationship between customer responsiveness and competitive advantage in medium and large garment companies in Kenya. The null hypothesis was therefore rejected and the alternative hypothesis that customer responsiveness has a significant influence on competitive advantage was accepted.

5.2.5 Overall Influence of the Independent Variables on Dependent Variable (Competitive Advantage) in Medium and Large Garment Companies in Kenya

The research findings revealed a strong, positive linear relationship between the four predictor variables (knowledge management, managerial networking, innovation, customer responsiveness) and the criterion (competitive advantage) which was

statistically significant. The null hypothesis was therefore rejected and the alternative hypothesis that the independent variables have a significant influence on competitive advantage was accepted.

5.2.6 Moderating Influence of Competitive Intensity on the relationship Between the Determinants and Competitive Advantage in Medium and Large Garment Companies in Kenya

a) Moderating Influence of Competitive Intensity on the Relationship between Knowledge Management and Competitive Advantage in Medium and Large Garment Companies in Kenya

On the moderating influence of competitive intensity on the relationship between knowledge management and competitive advantage in medium and large garment companies in Kenya, the findings indicated the presence of a positive moderating effect at statistically significant levels. The results implied that, competitive intensity positively strengthened the relationship between knowledge management and competitive advantage.

b) Moderating Influence of Competitive Intensity on the Relationship between Managerial Networking and Competitive Advantage in Medium and Large Garment Companies in Kenya

In reference to the moderating influence of competitive intensity on the relationship between managerial networking and competitive advantage in medium and large garment companies in Kenya, the study revealed a moderating effect at statistically significant levels. The results meant that, competitive intensity positively strengthened the relationship between managerial networking and competitive advantage.

c) Moderating Influence of Competitive Intensity on the Relationship between Innovation and Competitive Advantage in Medium and Large Garment Companies in Kenya

In relation to the moderating role of competitive intensity on the relationship between innovation and competitive advantage in medium and large garment companies in Kenya, the data analysis resulted in an insignificant change in R-squared. Additionally, the beta coefficient for the interaction term revealed a negative moderating influence of competitive intensity on the relationship between innovation and competitive advantage. These findings implied that, competitive intensity weakens the positive link between innovation and competitive advantage by rendering the relationship both negative and insignificant.

d) Moderating Influence of Competitive Intensity on the Relationship between Customer Responsiveness and Competitive Advantage in Medium and Large Garment Companies in Kenya

On the moderating effect of competitive intensity on the relationship between customer responsiveness and competitive advantage in medium and large garment companies in Kenya, the findings shows that the inclusion of the interaction term resulted in a positive moderating effect at statistically significant levels. The results indicated that, competitive intensity positively strengthens the relationship between customer responsiveness and competitive advantage.

a) Overall Moderating Influence of Competitive Intensity on the relationship Between Determinants and Competitive Advantage in Medium and Large Garment Firms in Kenya

In regard to the moderating influence of competitive intensity on the relationship between the independent variables and the dependent variable, the inclusion of the interaction terms revealed the presence of a positive moderating effect which was statistically significant. It was thus concluded that, competitive intensity significantly

moderates the relationship between the four independent variables (KM, MN, INV, CR) and the dependent variable (CA).

5.3 Conclusion

The aim of this study was to enrich the existing scope of literature on determinants of competitive advantage, by empirically testing within Kenya's garment sector context, the influence of knowledge management, managerial networking, innovation and customer responsiveness on competitive advantage. In line with the study's summary which is drawn along the study's five objectives, the following conclusions were arrived at;

5.3.1 Influence of Knowledge Management on Competitive Advantage in Medium and Large Garment Companies in Kenya

On the basis the findings on objective one as summarized above, this study concludes that knowledge management moderately and positively influences competitive advantage at statistically significance levels in medium and large garment companies in Kenya. Notably, the findings reinforces the line of thought in knowledge-based view that, performance differences between organizations accrue due to their different stocks of knowledge and their differing capabilities in using and developing knowledge (Sajadirad, 2018; Nguyen, Phan & Nguyen, 2016). The conclusion further, reaffirms the assertions made in prior studies (e.g. Kmieciak and Michna, 2018; Gholami et al, 2020; Byukusenge & Munene, 2017), that knowledge management contingencies and knowledge types (e.g. information about customers, competitors, suppliers, technology and specialized skills of operation) leads to superior firm performance.

5.3.2 Influence of Managerial Networking on Competitive Advantage in Medium and Large Garment Companies in Kenya

In regard to the findings on the second objective, the study concludes that managerial networking has a positive but, remarkably weak influence on competitive advantage in

medium and large garment companies in Kenya. This finding probably, hints at the dual nature of managerial networks in that, on the one hand networks can indeed create superior levels of performance by availing key information about markets, demand and competitors (Boso, Story, & Cadogan, 2020), (Schoonjans, Van Cauwenberge & Vander Bauwhede, 2020; Kasemsap, 2016). On the other hand however, networks have the capability to dilute and even fully erase a firm's distinct competencies if such networks requires large amounts of resources to create and maintain. Networks can further, create "collective blindness" by preventing their members from accessing alternative information and other better partners (Karhunen, Kosonen, McCarthy & Puffer, 2018; Minh & Hjortsø, 2022). In this regard, medium and large garment manufacturing firms in Kenya should carefully evaluate the nature of benefits they are after in networks, the range of existing networks through which such benefits can be gained, and the costs associated with joining each viable network.

5.3.3 Influence of Innovation on Competitive Advantage in Medium and Large Garment Companies in Kenya

On the basis of the findings on the third objective, this study concludes that the influence of innovation on competitive advantage in medium and large garment companies in Kenya is notably strong, positive and statistically significant. The findings echoes what has been proven in much of the previous studies (e.g. Zehir, Can & Karaboga, 2022; Semuel, Siagian and Octavia, 2017) that, innovation and innovativeness are a source of a firm's long-term competitive advantage and survival; innovativeness attracts chances and opportunities that enables firms to compete successfully in turbulent and dynamic environments. Importantly also, the findings confirm the relevance of open innovation theory which argues for the exploitation of external and internal ideas in seizing innovative opportunities for sustainable competitiveness (Spithoven, Vanhaverbeke & Roijakkers, 2020; West & Bogers, 2021).

5.3.4 Influence of Customer Responsiveness on Competitive Advantage in Medium and Large Garment Companies in Kenya

In relation to the findings involving the fourth objective, this study concludes that customer responsiveness has a moderate and positive influence on competitive advantage in medium and large garment companies in Kenya. Likewise, many management scholars (e.g. Guo & Wang, 2022; Pekovic & Rolland, 2016; Udriyah, Tham & Azam, 2019) and proponents of customer dominant logic (e.g. Tynan, McKechnie & Hartley, 2021) have touted the benefits of being customer-focused, with claims that firms that learn from lead-users and customers acquire novel concepts; this enhances a firm's competitiveness by helping create differentiated products.

5.2.5 Moderating Influence of Competitive Intensity on the relationship Between Determinants and Competitive Advantage in Medium and Large Garment Companies in Kenya

On the moderating effect of competitive intensity on the above indicated relationships in medium and large garment companies in Kenya, this study concludes that competitive intensity positively strengthens the relationship between knowledge management and competitive advantage, also positively enhances the relationship between managerial networking and competitive advantage and, further strengthens positively the relationship between customer responsiveness and competitive advantage. The interaction however, weakens the positive link between innovation and competitive advantage by rendering the relationship insignificant. Overall, competitive intensity strengthens the relationship between the four predictor variables (regressed together) and the dependent variable (CA).

Undoubtedly, some of the above findings may seem somehow surprising, but nevertheless each has been encountered in prior studies, with varied arguments being advanced to make sense of such outcomes. For instance, in regard to the aforementioned findings on knowledge management, the common stance (e.g. Maes & Sels, 2021;

Martinez-Conesa, Soto-Acosta, & Carayannis, 2017) is that intense market competition increases a firm's aggression for knowledge acquisition, particularly pertaining to knowledge on competitors' moves. Accordingly, such firms will be keener when utilizing the new stocks of knowledge, ensuring that it is applied more efficiently and effectively for sustainable competitiveness. As for the results on customer responsiveness, various scholars (e.g. Andotra and Gupta, 2016) have hypothesized that, competitive industries naturally pushes the players to increase their competitiveness through customer focused incentives such as product customization. Pertaining the findings on managerial networking, researchers such as Hernández-Carrión, Camarero-Izquierdo and Gutiérrez-Cillán (2017) similarly, observes that managers in highly competitive industries are subconsciously driven to seize and utilize network resources more effectively in their quest to outmaneuver rivals.

In regard to the negative moderating effect of competitive intensity on innovation-competitive advantage relationship, the dominant view (Tsai and Hsu, 2021; DeChurch, Mesmer-Magnus & Doty, 2020; Klotz, Hmieleski, Bradley & Busenitz, 2021) argues that, the time pressure associated with highly competitive markets increases the propensity for conflicts between the firm's cross-functional teams, for instance between R&D and marketing personnel. Such frictions compromises marketing, technical, and competitive intelligence activities which lowers new product introductions and a firm's level of competitiveness.

5.4 Recommendations

Based on the preceding findings and conclusions, the researcher recommends the following;

On the basis that knowledge management was found to have a positive influence on competitive advantage in medium and large garment manufacturers in Kenya, this study recommends increased emphasis on KM pillars which constituted this study (knowledge audits, organizational culture and rewards structures). In as far as knowledge audits are concerned, Kenya's garment firms should identify, measure and assess the most

important stocks of knowledge and critical gaps and improvement opportunities. Such gaps could be in the form of knowledge which is related to projects, regulations, patents, licenses, products and technological advancements in the firm and the sector. In relation to culture, the enterprises' managements needs to remold their management styles, employee attitudes and cultural norms that pose challenges for KM and ensure that they embrace the forms of culture that supports knowledge sharing and other KM behaviors. In as far as rewards are concerned, the managements needs to acknowledge that employees are more motivated to share knowledge when presented with both intrinsic and extrinsic motivation. Extrinsic rewards should therefore be provided in tangible forms such as salary increments, bonuses, commissions, benefits and prizes. Intrinsic (psychological) rewards on the other hand ought to be availed in the form of improved work environment, opportunity to take part in prestigious projects and generally making tasks interesting, stimulating and engaging.

On the basis that managerial networking was shown to have a positive but weak influence on competitive advantage in Kenya's garment firms, caution needs to be taken when joining networks to ensure that a firm reaps optimal benefits while avoiding the pitfalls that are associated with networking; ties with financial institutions will help avail credit for entities' growth, strengthening relationships with market agents (suppliers and customers) will extend a firm's technological and commercial capabilities whereas, political ties will aid in overcoming legal and institutional barriers. Conversely, efforts should be made to avoid "collective blindness" and "lock-in effect" which often creeps-in in business networks, and external interferences that accompanies ties with political entities. Importantly, Kenya's garment firms' needs to evaluate the type of networks they should maintain, consolidate, or invest in to obtain the resources and capabilities which they require for superior performance.

Under the consideration that innovation was found to have a strong and positive influence on competitive advantage in medium and large garment firms in Kenya, this study recommends the enhancement of capabilities along the innovation dimensions that were examined in this study (R&D, cross-functional collaborations and new product

introductions). Pertaining R&D, aligning this function with the business strategy and needs ought to be the primary goal in the innovation ladder. The firms should further ensure that the right inputs are available to support R&D functions such as product development, research, technical service and manufacturing. In regard to cross-functional collaborations, the firms should have diverse and inclusive teams working collaboratively and cross-functionally; research has shown that, diverse teams bring greater creativity and innovation, make better and faster decisions and are more engaged. The firms should also make room in the reward structure for collaborative activities. In as far as new product introductions (NPI's) are concerned, the firms should always create a well-planned roadmap that details all the necessary steps – right from garment design to product launch to increase chances of NPI success. Deciding on a timeframe for the release of a new garment product is also important in avoiding obsolescence and undesirable shifts in consumer tastes.

On the basis that customer responsiveness was found to have a positive effect on competitive advantage in medium and large garment firms in Kenya, this study recommends improvements in relation to CR areas that were pertinent to this study (product customization, organizational flexibility and agility). In relation to product customization, garment firms should determine the level of customization they can and really need to offer, and create the ideal balance between the enterprise's customization capabilities and consumer requirements. In reference to organizational flexibility and agility, managers ought to decide the type of flexibility and agility they need, and give a careful thought to how they will develop those capabilities. Specifically, they should avail the type of workforce, training, technological tools and equipment needed to enhance the chosen forms of flexibility and agility. Further, managers need to inculcate cultural factors that enable greater agility, and take note of the fact that an agile culture demands a less hierarchical leadership in which organizational teams take ownership of smaller, urgent and critical decisions.

Noting that competitive intensity was generally shown to have a positive moderating effect on the relationship between predictor variables (KM, MN, INV, CR) and the

criterion (CA), this study recommends the embracing of, rather than the avoidance of intense industry rivalry. Thus, as competitive intensity heightens in the Kenya's garment sector (especially from foreign products), firms should take a more proactive role in enhancing their capabilities in knowledge management, managerial networking, innovation and customer responsiveness. This will enhance their offerings and value proposition, which will increase their competitiveness and extend their survival.

5.5 Suggestions for Further Research

This study concentrated on only four determinants of competitive advantage; knowledge management, managerial networking, innovation and customer responsiveness. There is need to replicate this study in the garment and other sectors with other variables. Secondly, the moderating effect of competitive intensity on the relationship between dependent and independent variables in this study is by no means exhaustive. Future studies should identify more mediator variables (e.g., institutional factors and regulation). In addition, future research would need longitudinal designs since the impact of independent variables explored in this study on competitive advantage will take time to materialize.

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APPENDICES

Appendix I: Letter of Introduction

I am a student at Jomo Kenyatta University of Science and Technology (JKUAT) undertaking a doctoral degree (Ph.D) in Business Administration – Strategic Management Option. I am carrying out a thesis research on "Determinants of competitive advantage in medium and large garment companies in Kenya"

This research aims at understanding the amount of emphasis accorded to practices that are associated with knowledge management, managerial networking, innovation and customer responsiveness, and ultimately how implementing these practices has impacted on your firm's level of competitiveness. The raw data collected from this survey will be kept confidential and will be used strictly for academic purposes only. This study will be conducted in utmost ethical manner.

Your honest participation in this survey will be highly appreciated.

Appendix II: Questionnaire

This questionnaire aims at collecting information on the determinants of competitive advantage in garment companies in Kenya. Specifically, the questionnaire targets the personnel in your firm who are in charge of/or highly conversant with the levels of four key practices in your firm, namely; knowledge management, managerial networking, innovations, and customer responsiveness. Note that, the data collected in this study will be used for academic purposes only, and thus the information you give will be held with confidentiality. Please, do not write your name on the questionnaire.

PART A: GENERAL INFORMATION

i) Pleases indicate the category that your firm belongs to in terms of size

1. Medium sized company (51-100 employees and capital investment of 10-30m Kshs)
2. Large company (101 employees and above/and capital investment of above 30m Kshs)

ii) Indicate your firm's structure of ownership

1.{Sole proprietorship} 2.{General partnership} 3.{Limited partnership} 4.{Corporation} 5.{Others; please indicate ……}

iii). Kindly tick the number of years your company has been in operation

1.{5-10} 2.{11-15} 3.{16-20} 4.{21-25} 5.{26 and Above}

iv). Indicate the type(s)/nature of garment(s) manufactured by your firm

1. {Mens' Wear} 2. {Women's Wear} 3.{Children} 4.{Infant} 4.{School Uniforms}

5. {Others; please indicate……}

v). Indicate the average life-cycle of garments that your firm specializes in

1. {Up to 20 weeks} 2. {21 - 52 weeks} 3. {1 year - 2 years} 4. {More than 2 years t}

5.{ Products with varying lifecycles }

iv) Please indicate the nature of your main competitors in the market(s)

1. {I have no knowledge about our competitors} 2. {None} 3. {Locally produced garments only} 4. {Foreign produced garments only} 5. {Local and foreign garments}

PART B: KNOWLEDGE MANAGEMENT

i. Please rate the extent to which your company engages in the following knowledge management activities (**Scale: 1**= Never, **2**= Rarely, **3**= Sometimes, **4**=Frequently, **5**= Always)

	S/NO		1	2	3	4	5
Conducting knowledge audits	1	Assessing the status of organization ' s knowledge to determine missing knowledge and how such omission restricts firm's growth					
	2	Assessing the most effective methods for imparting learning (knowledge dissemination) among employees					
	3	Assessing how effectively knew knowledge is being applied in organizational activities					
Promoting a knowledge sharing culture	4	Promoting a climate of trust to encourage knowledge disclosure among employees					
	5	Encouraging social interactions among employees					
	6	Resolving internal conflicts which hinders knowledge sharing					

Rewarding knowledge sharing behavior	7	Inventing rewards which are tied to knowledge sharing					
	8	Ensuring that rewards for knowledge sharing are valued by employees					
	9	Reviewing rewards for knowledge sharing to determine if their intended objective is being achieved					

ii. In your opinion, is knowledge management a critical aspect in achieving and maintaining competitiveness in your company? Please explain

……...……

……..……..……

……...……

……

……

iii. If to some extent your firm has a focus on knowledge management (as per your responses in part 'i'), in your view what are the major impediments to optimal knowledge management in the company (if any)?

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PART C: MANAGERIAL NETWORKING

Rate the extent to which the top management in your firm engages in the following managerial networking practices (**Scale: 1**= Never, **2**= Rarely, **3**= Sometimes, **4**=Frequently, **5**= Always)

	S/NO		**1**	**2**	**3**	**4**	**5**
Creating/ maintaining ties with government	1	Investing organizational resources on ties with government officials/agencies (e.g. contributing to political candidates whose ideologies are beneficial to the					

agencies		firm/industry)					
	2	Inviting government officials to company facilities/activities e.g. product launches, presentations of annual financial reports					
	3	Mitigating potential conflicts between the firm and government agencies					
Creating/ maintaining ties with financial institutions	4	Initiating joint initiatives between the firm and financial institutions to create opportunities for joint success					
	5	Creating a climate of trust between the firm and financial institutions					
	6	Communicating firm ' s financial progress and future goals to relevant financial institutions					
Cultivating/maintaining ties with business entities	7	Cultivating strong social ties with suppliers for efficient access to quality materials etc.					
	8	Creating strong social relations with customer firms to enhance customer loyalty, to increase sales volumes etc.					
	9	Forging connections with competitor firms for joint action against industry uncertainties e.g. unfair industrial policies etc.					

ii. In your view, is managerial networking a critical element in creating a competitive edge for your company? Please explain.

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……

iii. If to some extent your firm has a focus on managerial networking, in your opinion what are the key hindrances to optimal networking in the company (if any)?

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PART D: INNOVATION

i. Rate the extent of your firm's focus on the following innovation initiatives (**Scale: 1**= Never, **2**= Rarely, **3**= Sometimes, **4**=Frequently, **5**= Always)

	S/NO		1	2	3	4	5
Research & Development (R&D)	1	Assessing product research ideas in relation to options, risks, costs versus benefits, and impacts on end - user					
	2	Sourcing for partners (e.g. new suppliers) needed for new product development					
	3	Documenting new product/process trial results and ensuring that results are communicated to relevant sections and stakeholders					
Cross-functional collaborations	4	Ensuring that team members selected for innovation projects have complementary skills					
	5	Ensuring that team members' roles, responsibilities and operating methods are clearly established					
	6	Providing administrative support (e.g. financial support) to projects teams					
New product introductions	7	Introducing products/services that are first of their kind in the industry					
	8	Improving/revising existing products					
	9	Repositioning products to serve new markets					

ii. In your opinion, how important is innovativeness in enhancing the competitiveness of your firm? Please explain.

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iii. If to some extent your firm has some focus on innovation, in your view what are the key impediments to optimal innovativeness in the company (if any)?

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PART E: CUSTOMER RESPONSIVENESS

i. Rate the extent to which your company engages in the following customer responsiveness practices (**Scale: 1**= Never, **2**= Rarely, **3**= Sometimes, **4**=Frequently, **5**= Always)

	S/NO		1	2	3	4	5
Product customization	1	Allowing high value customers to determine the style, material and design of their product from the beginning					
	2	Availing a wide range of garment styles and materials for customers to choose from					
	3	Allowing customers to suggest/make modifications to finished products e.g. putting logos, embroidery, ornamentation					
Enhancing organizational flexibility	4	Changing managerial roles in accordance with evolving market needs					
	5	Adjusting operations routines in accordance with evolving market needs					
	6	Maintaining a logistics systems (e.g. supply system) which easily adapts to evolving customer tastes					
Enhancing organizational agility	7	Sensing opportunities and drawing plans on how to seize them					
	8	Swiftly assembling teams with the right talent to address abrupt market challenges					
	9	Focusing on continuous operations improvements					

ii. In your opinion, is customer responsiveness a critical determinant of competitiveness in your company? Please explain.

……...
……...

…….……
…...……...……

iii. If to some extent your firm has a focus on customer needs, in your view what are the major hindrances in attaining optimal customer responsiveness in the company (if any)?

……...
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……..……

PART F: COMPETITIVE INTENSITY

Rate the extent to which you agree with the following statements concerning competitive intensity in your market **(Scale: 1=** Strongly Disagree **2=**Disagree, **3=**Uncertain, **4=**Agree **5**= Strongly Agree)

S/No		**1**	**2**	**3**	**4**	**5**
1	When a firm introduces an innovation the rest copy the idea quickly					
2	One hears of a new competitive move in our market frequently					
3	There are many competitors who enter and leave the industry					
4	Price wars are normal					
5	There are many "promotion wars" in our market					
6	Competition in our market is cut-throat					

PART G: COMPETITIVE ADVANTAGE

1. Rate your firm's performance over the past 5 years in relation to competitive advantage indicators outlined below **(Scale: 1=** has decreased greatly **2=** has decreased slightly **3=**has not changed **4=**has increased slightly **5=**has increased greatly**)**

S/No	**Competitive Advantage**	**1**	**2**	**3**	**4**	**5**
1	Sales turnover (sales volumes)					
2	Market share					
3	Profit					

Thank you for your support

Appendix III: Summary of the Study Variables

Summary of the Study Variables

Type of variable	Variable name	Indicator	Scale	Questionnaire item
Independent Variables	Knowledge Management	Frequency of knowledge audits	5- point likert scale, 3 items	Part B Question 1 - 3
		Extent of knowledge sharing culture	5- point likert scale, 3 items	Part B Question 4 - 6
		Organizational rewards for knowledge sharing	5- point likert scale, 3 items	Part B Question 7 - 9
	Managerial Networking	Extent of managerial ties with government agencies	5- point likert scale, 3 items	Part C Question 1 - 3
		Extent of managerial ties with financial institutions	5- point likert scale, 3 items	Part C Question 4 - 6
		Extent of managerial ties with business entities	5- point likert scale, 3 items	Part C Question 7 - 9
	Innovation	R&D Intensity	5- point likert scale, 3 items	Part D Question 1 - 3
		Extent of focus on cross-functional collaborations	5- point likert scale, 3 items	Part D Question 4 - 6
		Frequency of new product introductions	5- point likert scale, 3 items	Part D Question 7 - 9
	Customer Responsiveness	Intensity of product customization	5- point likert scale, 3 items	Part E Question 1 - 3
		Extent of organizational flexibility	5- point likert scale, 3 items	Part E Question 4 - 6

		Extent of organizational agility	5- point likert scale, 3 items	Part E Question 7 - 9
Moderating variable	Competitive Intensity	The rate at which firms imitates each other’s innovations	5- point likert scale, 1 item	Part F Question 1
		Frequency of new moves made by competitors	5- point likert scale, 1 item	Part F Question 2
		Extent of entry and exit barriers in the industry	5- point likert scale, 1 item	Part F Question 3
		Extent of Price wars	5- point likert scale, 1 item	Part F Question 1
		Rate of “ promotion wars” in the market	5- point likert scale, 1 item	Part F Question 1
		Overall magnitude of competition/ rivalry in the market	5- point likert scale, 1 item	Part F Question 1
Dependent variable	Competitive Advantage	Sales turnover	5- point likert scale, 1 item	Part G Question 1
		Market share growth	5- point likert scale, 1 item	Part G Question 2
		Profit growth	5- point likert scale, 1 item	Part G Question 3

Appendix IV: List of Sampled Companies

1. Bhupco Textile Mills Ltd
2. Annointed Hands Outfitters
3. Brand Track Ltd
4. Apex Apparels EPZ Ltd
5. Brother Shirts Factory Ltd
6. Arax Mills Ltd
7. Denamal Garments Factory (K) Limited
8. Summit Fibres Ltd
9. Dipco Garments Factory
10. Sunflag Textile & Knitwear Mills Ltd
11. Distinct Garment Factory
12. Supra Textiles Ltd
13. Fine Spinners Ltd
14. Uzuri Manufacturers Ltd
15. Fineline Industries Ltd
16. Nyali textile mills ltd
17. Ismana Designs Ltd
18. Norsam Enterprises
19. Kemco Clothing Factory Company
20. Mombasa Towel Manufacturers Ltd
21. Kaajal Textile Ltd
22. Ngecha Industries Ltd
23. Kerbrook Garment Manufacturers Ltd
24. Omega Apparels Ltd
25. Kiboko leisure wear ltd
26. Panah Ltd
27. Kentex Manufacturers Ltd
28. Penny Galore Ltd
29. Kikoy Co. Ltd
30. Polo Indusries Ltd
31. Malde Pleating Industry Ltd
32. Shawaz Textile Mills Ltd
33. Manchester Outfitters Ltd
34. Arrival Textiles
35. Midco Textiles (EA) Ltd
36. Beberavi Collections Ltd
37. Mills Industry Ltd
38. Bedi Investments Ltd
39. Banister Designer
40. Elmenteita Weavers Ltd
41. Azna Fabrics
42. Nakuru Industries Ltd
43. Bethel Tailors & Outfitters
44. Zenith Garments
45. Bids Garments Ltd
46. Alpha Knits Ltd
47. Beula Fashions Ltd
48. Bogani Industries Ltd
49. Bliston Enterprises
50. Spinners & Spinners Ltd
51. Amble Cote Ltd
52. Spin and Knit Ltd
53. Ampex Outfitters
54. Kenwear Garment Manufacturers Ltd
55. Ann Tailoring
56. **Kericho TENGECHA UNIFORMS**
57. Fulchand Raishi & Co Ltd
58. Kenya Shirts Manufacturers Company Ltd
59. East African Garment Factory Ltd
60. Emirate textile manufacturing Co. ltd
61. Kamyn Industries Ltd
62. Zenith Garments
63. Leena Apparels Ltd
64. Harji Kara & Co
65. Long-Yun
66. Ken-Knit (Kenya) Ltd
67. Acme Textile Ltd
68. Squaredeal Uniforms Centre Ltd
69. Blanket Industries Ltd
70. Heritage woollen mills(formerly raymond textile mills)
71. Summit Fibres Ltd
72. Bhagwanji Hansraj & Co