STRATEGIC PRODUCT RESPONSES, STRUCTURAL CAPITAL AND THE GROWTH OF EXPORT MANUFACTURING SMALL AND MEDIUM SIZED ENTERPRISES IN NAIROBI COUNTY

BY

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DECLARATION

Declaration by the Student

This project is my original work and has not been presented to any other institution of higher learning. No part of this project may be reproduced without prior consent of the author and/or Moi University.

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DEDICATION

This work is dedicated to my family for their moral support, financial support and encouragement to pursue my dreams. To my beloved father Gideon Shikaro, mother Alice Shikaro, siblings Moses Kamau, Samuel Kaguongo, James Kariuki and Simon Mwangi. You are my inspiration.

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ABSTRACT

Firm growth is related very closely to firm survival. Specifically, firm growth is positively correlated with the likelihood of survival. Hence firms that experience continuous growth will have a higher probability of surviving in the market. Stiff competition, resource constraints and organizational limitations hinder SMEs growth. The main objective of the study was to investigate the moderating effect of structural capital on the relationship between strategic product responses and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi county. The specific objectives of the study were to establish strategic product design, to determine strategic product development, to assess strategic product differentiation and to evaluate strategic product innovation on the growth of export manufacturing SMEs in Nairobi county and to examine moderating effect of structural capital on the relationship between strategic product responses and the growth of export manufacturing SMEs in Nairobi county. This study used the discrete choice theory, diffusion of innovation theory and chasm theory of growth (Anchor Theory). Explanatory research design was most appropriate for its ability in developing an explanation of a causal relationship between independent and dependent variables. The study area was in Nairobi County and the target population was 369 export manufacturing SMEs. Slovin's formula was applied to generate a sample size of 191 SMEs. The primary data was collected by using a structured questionnaire. The questions were designed using a 5 point Likert scale ranging (1 to 5). Pilot study was done in Kiambu County covering 19 SMEs. Validity and reliability were tested. The data collected was analyzed using Statistical Package for the Social Sciences (SPSS) version 23.0. Correlation results revealed that product design (r=.476, p=.000), product development (r=.383, p=.000), product differentiation (r=.275, p=.000), product innovation (r=.277, p=.000) and structural capital (r=.276, p=.000) had positive significant correlation with growth of SMEs. Regression results revealed that product design (β=.560, p=.000), product development (β=.565, p=.000), product differentiation (β=.442, p=.000) and product innovation (β=.426, p=.000) all had a positive effect on growth of the SMEs. Product design interaction term (β=.123, p=.056), product development interaction term (β=.052, p=.001) and product innovation interaction term (β=.272, p=.001) is significant suggesting that structural capital strengthens the positive relation between product design, product development and product innovation and growth of SMEs. Whereas, product differentiation interaction term (β=.126, p>.05) is not significant suggesting that structural capital does not significantly moderate the positive relationship between product differentiation and growth of SME. The study concluded that product design, product development, product differentiation, product innovation and structural capital influences export manufacturing SMEs growth. The study recommended that managers and SMEs owners should implement product design, product development, product differentiation product innovation and structural capital to improve on SME growth. Also SMEs should be supported by trade promotion organizations to provide market information, as well as training and network opportunities so as to attain the SDGs.

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ACRONYMS

ANOVA: Analysis of Variance

COMESA: Common Market for Eastern and Southern Africa

EAC: East African Community

GDP: Gross Domestic Product

SDG: Sustainable Development Goals

SMEs: Micro, Small and Medium sized Enterprises

SPSS: Statistical Package for the Social Sciences

DEFINITION OF KEY TERMS

Growth: Expansion of the size of a business or firm over time; measured using assets, capital employed, turnover, profits, number of employees, branches (Coad, *et.al.* 2014).

Product design: It is a key strategic practice in many companies as new products make a significant contribution to sales revenue and if companies may create unique products, they have the option of commanding premium prices (Ittner & Larcker, 2015).

Product development: A series of steps that includes the conceptualization, design, development and marketing of newly created or newly rebranded goods or services. It includes a product's entire journey from the initial idea to after its market release.

Product differentiation: A combination of varying items such as product's form, features, performance, and conformance to quality, durability and reliability of the product. Kotler (2003).

Product innovation: It is defined as the general and or acceptance of ideas, process, products or services that the relevant adopting unit perceives as new (Garcia & Catantone, 2002).

Product strategy: A high-level plan describing what a business hopes to accomplish with its product, and how it plans to do so. Should answer key questions such as who the product will serve (personas), how it will benefit those personas, and what are the company's goals for the product throughout its lifecycle (Hill, *et. al*. 2014).

Product: Anything that can be offered to a market for attention, acquisition, use, or consumption and that might satisfy a want or need. Includes, Physical Objects, Services, Events, Persons, Places, Organizations, Ideas (Crowley, 2017).

SMEs: In Kenya, Small and Medium sized Enterprises (SMEs) is defined as a lawfully registered company that has the number of employed people to be between 1 to 150 employees and has annual income generated that is less than 100 million Kenyan Shillings (Moyi, 2005).

Strategic response: Strategic responses are a sequence of actions and interventions resulting in the formulation and implementation of plans designed to attain the goals of a firm (Pearce & Robinson, 2015).

Strategy: A commitment to undertake one set of actions rather than another (Thompson and Strickland, 1995).

Structural Capital: Refers to the supportive non-physical infrastructure that enables human capital to function. Structural capital is owned by an organization and remains with an organization even when people leave. It includes: capabilities, routines, methods, procedures and methodologies embedded in organization.

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter covered the background of the study, global overview of SMEs growth, regional overview of SMEs growth, the statement of the problem, the objectives of the study, research hypothesis, the scope of the study and the significance of the study.

1.1 Background of the Study

Firm growth refers to the gradual increase in the scale or magnitude of a business or firm. Common indicators of corporate growth include the expansion of assets or capital invested, revenue generation, profitability, and workforce size. Certain companies opt to remain small, either due to deliberate decisions or external factors such as being a local "corner shop." Conversely, other companies want to grow and become enormous, either on a national or international scale. Growth can be characterized as the process of generating revenue, adding value, and expanding the volume of the firm (Andrews, Boyne, Law& Walker, 2009). The subject of firm expansion has been extensively examined in economic literature. The growth of a firm is directly linked to the survival of the firm. More precisely, there is a significant correlation between the expansion of a corporation and its chances of survival. Therefore, companies that consistently achieve growth are more likely to endure in the market. Researchers have extensively studied the expansion of enterprises. Firm growth can be observed across various stages of development, generally referred to as life cycles. While authors may employ various terminology, the sequence of actions that any enterprise goes through is generally consistent.

Growth-oriented businesses are a substantial contributor to the economic benefit of any nation; nevertheless, the concept of growth can mean very different things to various business owners. Companies are collections of internal and external resources, which work together to give an organization a competitive advantage in the marketplace. An organization's total size is not subject to any kind of upper bound over the course of time, but its rate of expansion certainly is. The rate at which an experienced managerial staff can design and carry out this plan is directly proportional to the rate at which a business will grow. The exterior environment of a business is an image in the imagination of the entrepreneur who founded the business. The actions of an enterprise are directed by productive opportunities, which are in reality a dynamic interaction between the organization's internal environment and the environment it interacts with externally. Growth is a process that takes place naturally and normally, and it will take place whenever the conditions are favorable. The scale of the organization is mostly irrelevant to the expansion process.

Greiner identified that firms pass through five distinct stages of development during their lifetimes. creativity, direction, delegation, coordination, and collaboration are some of the most important skills to have. In each phase, there is a pleasant period of progress that is followed by a crisis that requires managerial attention. He suggests that a company will experience evolutionary and revolutionary crises over its lifetime. These crises can be resolved by instituting new structures and programs that will assist personnel in reviving themselves, which will bring about the desired results. The phenomena of evolution and revolution described by Greiner became the foundation for a number of research on the life cycle of businesses. The mindset and management style of a manager have a significant impact on the continued existence of an organization as well as its level of productivity. In the early phases of business

development, he stressed the need of possessing abilities such as self-commitment, capability, vision, risk-taking, and reinforcing others' commitment, as well as administrative proficiency. When an organization enters its prime stage, the manager in charge of it needs to be able to demonstrate excellent planning and coordination skills, in addition to having a focus on results. When the enterprise has reached the maturity level, it ought to be supported by systems to accomplish the goal. Even though it is every entrepreneur's goal to see their firms expand, the idea of business growth is still a bit unclear because there has not yet been a clear strategy or definite signs of business growth . Despite this, the concept of business growth is still a grey area (Gupta, Guha, & Krishnaswami, 2013)

According to Tebrani (2016), strategic response have been found to be effective in assisting an organization adapt to changes in the surrounding environment. These kinds of responses are alterations that come about as a natural consequence to the objectives and goals of an organization. Therefore, in order for an organization to grow, it must experience transition and adjust to that change.

According to Pearce and Robinson (2015), strategic responses are a series of acts and interventions that result in the development and execution of plans aimed to accomplish the objectives of an organization. These writers emphasize additionally that in order to effectively fulfill the objectives of the business, these plans and activities need to be strategically adapted to the complexities and dynamism of an environment that is constantly changing. Ketchen and Palmer (2017) made the observation that businesses are generally open systems that have constant interactions and interfaces with their external environments.

Strategic responses refer to the specific tactics that organizations adopt in reaction to ongoing changes in the external environment. The corporate landscape has become highly dynamic due to increased competition, globalization, and the internationalization of firms. All organizations are considered open systems, which implies that they have a mutual relationship with their operating environment, where they both influence and are influenced by each other (Cumming & Worley, 2009). In order to remain competitive in the market, firms are need to reassess their strategy due to the growing competitive climate (Pearson & Robinson, 2005).

Firms are collections of internal and external resources, which work together to give an organization a competitive advantage in the marketplace. An organization's total size is not subject to any kind of upper bound over the course of time, but its rate of expansion certainly is. The rate at which a skilled managerial staff can design and carry out this plan is directly proportional to the rate at which a business will grow. The outside environment of a business is an image in the imagination of the entrepreneur who founded the business. The actions of an enterprise are directed by productive opportunities, which are in reality a dynamic interaction between the organization's internal environment and the environment it interacts with externally. Growth is a process that takes place naturally and normally, and it will take place whenever the conditions are favorable. An enterprise is an organized administrative unit which provides administration coordination and authoritative communication. The size of the organization is less crucial to the growth process.

All of the factors that are not within the direct control of the company are included in the external environment. They have an impact on the entire industry as a whole, and the company may have very little influence over them. In order to make sense of the

environmental influences and the organization's capacities in adjusting to these changes, managers look to their past experiences and the paradigm that the organization operates under. The responses of organizations are typically consistent with the paradigm as well as the routines that are established. Even if external pressures and organizational capabilities (or a lack thereof) have an indirect influence on strategy creation, they nonetheless have a direct impact on the success of a company (Johnson, Scholes, and Whitting, 2008). Particular strategies with clearly described end goals are established in order to move the operations of an organization from their current position to a future desirable one. This is done in order to achieve a strategic fit between the operations of an organization and the dynamic environment in which it operates. This is accomplished through the utilization of strategic management, which entails the formulation and application of suitable strategies with the intention of overcoming shifts in the operational environment.

Firm growth is reflective of the accomplishments or outcomes attained by management in order to render the organization competitive, efficient, and effective. One determinant of a company's growth is the market in which it operates, which may also have an impact on the efficiency of the organization. Positive accomplishments are equal to rapid growth. To stimulate growth, firms employ a variety of approaches. Potential strategies include those that distinguish their products from those of their competitors and those that ensure the continued effectiveness and enhancement of their current strategies (Kiptugen, 2003).

Strategic responses simultaneously increase the value of organizations to the environment they operate in and guarantee their overall survival (Mugambi, 2003). The pursuit of a favorable competitive positioning for a product within an industry is

a strategic response, which aims to maintain market relevance and outperform competitors. Its objective is to establish a sustainable and profitable position in resistance to the forces that dictate industry competition. Pearce and Robinson (2005) postulate that a firm can establish and maintain its position and relationship with the environment, thereby safeguarding against unforeseen challenges arising from environmental change, by employing strategic responses. Johnson and Scholes (2002) assert that the corporate level strategy addresses the company's fundamental goals and purpose, as well as guarantees the fulfilment of stakeholders' expectations. It facilitates the organization in determining which business lines to prioritize via portfolio management, divestiture, and diversification integration. The business level strategy establishes and outlines the manner in which the organization contends within its industry and plans to accomplish its objectives in the long run.

As a strategic asset, structural capital is comprised of non-human resources such as databases, information systems, routines, and procedures (Abualoush et al. 2018). It provides the required resources and infrastructure for the preservation, packaging, and transmission of knowledge across the entire value chain, thereby serving as the foundation and governing force of the organization (Bejinaru, 2016).

Structural capital refers to the foundational elements that enable organizations to exchange their human resources for financial gain and to facilitate the development and application of their expertise (Bayraktaroglu et al. 2019). According to Tseng and Goo (2005), effective structural capital can be built by means of organizational processes, information systems, organizational culture, internal organizational structure, or administrative systems. In addition, it is simply structural, therefore it belongs to the organization and can be replicated or distributed to others. Not only

does the creation of structural capital result in the development of systems for the acquisition of knowledge, but it also results in the provision of a mechanism for the collection and integration of that gained knowledge (Grant, 1996). According to Bontis (1998), efficient structural capital has the ability of enabling a favorable environment that encourages the dissemination of knowledge, the growth of collective knowledge, the reduction of lead times, and the development of productive persons. It is comprised of a company's complete non-human knowledge storehouse, which includes all of the company's policies, procedures, routines, and databases, as well as any relevant competitive formulas. According to Joshi et al. (2010), which was cited in Khalique et al. (2011), Structural Capital is a body of knowledge that was created by the firm and that is an integral component of the firm. On the other hand, Hussinki et al. (2019) stated that it allows the environment that encourages individuals' investment in their human capital for the development and utilizing of knowledge. According to Tjahjadi et al. (2019), Structural Capital is comprised of the organizational system in addition to the structure. Sharabati, (2020) highlighted that the organization will find it difficult to make full use of its intellectual capital, while Ramezan (2011) argued that strong Structural Capital has the ability to actualize the complete utilization of intellectual capital. However, if the organization has inefficient Structural Capital, it will be challenging to accomplish the complete utilization of its intellectual capital.

In point of fact, academic research has demonstrated that Structural Capital is an essential component in determining the level of a company's profitability. Both Cabrilo and Dahms (2018) and Sardo et al. (2018) demonstrated that Structural Capital is an essential factor that has a significant impact on the competitive position that a company has in a variety of industries. There is general agreement that

Structural Capital has an impact on the growth of an organization (Scafarto et al. 2016; Khalique et al. 2015; Lu et al. 2014; Kamukama et al. 2010). However, some academics, such as Haris et al. (2019), have argued that contradictions ought to be expected, due to the fact that the effect of Structural Capital on growth varies depending on the industry and the country. In support of this point of view, Bayraktaroglu et al. (2019) found that that the existence of some differentials between enterprises may modify the influence of structural capital on growth.

In many countries around the world, both emerging and developed, small and medium-sized businesses (also known as SMEs) make up a significant portion of the economy. Due to the fact that in some nations, small and medium-sized enterprises are responsible for more than half of the gross domestic product (ACCA, 2010), they are sometimes referred to as the "backbone" of an economy. According to Ayyagari et al. 2011, small and medium-sized businesses (SMEs) make up 99.8% of all firms and employ approximately 76 million people, which accounts for approximately 67.4% of total employment in 2010. This is especially true in the European Union. According to ACCA (2010), small and medium-sized enterprises (SMEs) in the United States contributed more than half of the non-farm private GDP and were responsible for the creation of three quarters of all net new jobs. As a result, it is abundantly obvious that small and medium-sized businesses play a significant role in encouraging equitable growth in countries. Bartlett and Bukvic's study from 2001).

Estimates imply that more than 95% of businesses around the world are small and medium-sized businesses (SMEs), and that these businesses are responsible for around 60% of employment in the private sector (Ayyagari et al. 2011). However, accurate and current data are difficult to obtain. According to the EIU (2010), Japan is

the industrialized country with the highest proportion of small and medium-sized firms (SMEs), which account for more than 99% of the country's total enterprises. According to the Ministry of Micro, Small and Medium Enterprises of India, there were 13 million MSMEs functioning in India as of the year 2008 (Ghatak 2010). This number represents almost 80% of all enterprises in the country. According to Abor and Quartey (2010), it is estimated that 91% of the formal business entities in South Africa are Small and Medium-Sized Enterprises (SMEs). Estimated data for the 27 countries that make up the European Union (collectively referred to as the EU-27) for the year 2012 further highlight the significance of SMEs.

The impact made by SMEs does differ significantly from country to country and area to region. In spite of this, they serve a particularly important function in high-income countries and occasionally even in low-income ones, where they make considerable contributions to both the GDP and employment (Dalberg, 2011). They also make significant contributions to the innovation of economies, which is accomplished in part through collaboration with the more established business sector. It is possible for small and medium-sized enterprises (SMEs) that get immersed in the supply chains of larger organizations to be motivated to develop their own human and technology capital (ACCA, 2010), which will ultimately result in an improvement in their own productivity and performance. The contribution of small and medium-sized enterprises (SMEs) to the fundamentals of the economy, however, varies significantly among nations. This contribution ranges from 16% of GDP in low-income countries (where the sector is often sizable but informal) to 51% of GDP in high-income countries. The development of small and medium-sized enterprises (SMEs) can also be greatly influenced by historical precedent and legislative history. For instance, according to research conducted by Ayyagari et al. (2003), countries that were a part

of the Soviet Union in the past tend to have disproportionately tiny SME sectors, even when accounting for per capita income.

In contrast, in developing countries, approximately 90 percent of all businesses that are not involved in agriculture are classified as either small or micro companies. These companies are responsible for a considerable portion of the GDP. For instance, in Morocco, 93% of industrial enterprises are classified as SMEs, and these firms are responsible for 38% of the country's production, 33% of its investment, and 30% of its exports. In South Africa, the contribution of smaller businesses, known as SMEs, is significantly larger. The contribution of South Africa's estimated 91% of formal business firms, which are classified as SMEs, to the country's GDP ranges between 52–57%. Small and medium-sized enterprises (SMEs) play an even more significant role in the economy of Ghana. According to Abor and Quartey (2010), SMEs account for around 92% of Ghana's firms and contribute approximately 70% to the country's GDP. When taken as a whole, statistics have the potential to obscure the specific contribution provided by different industries. For instance, in 2006–7, the contribution that micro and small enterprises made to the gross domestic product of India was only about 6% of the total. Despite this, small and medium-sized manufacturing businesses were responsible for approximately forty percent of total industrial output and forty percent of all exports (Ghatak, 2010). In a similar vein, the United States International Trade Commission (2010) estimates that small and medium-sized enterprises (SMEs) were responsible for nearly half of the private non-agricultural GDP in the United States in 2004, a ratio that had been largely consistent from 1998 to 2004. The contribution of service-related businesses to GDP is by far the most significant, accounting for 79% of the total amount contributed by SMEs. Small and medium-sized businesses (SMEs) have a greater propensity to be labor intensive than bigger

businesses and to be concentrated in service industries. As a result, their contribution to output per firm tends to be smaller when compared to that of larger organizations. According to Wymenga et al. (2011), as a result, they often attain lower levels of productivity, despite the fact that their contributions to employment are important. The greater labor intensity of SMEs indicates that job creation entails lower capital costs than in larger enterprises. This is something that is particularly relevant for developing countries and economies that have a high unemployment rate. In addition, smaller and medium-sized firms are typically more prevalent in rural areas than bigger ones. Small and medium-sized enterprises, or SMEs, are a primary source of employment in rural regions, particularly in developing countries. Small and medium-sized businesses have the potential to become the growth-sustaining engines that are essential to emerging countries' long-term development. When the rate of economic growth picks up, small and medium-sized businesses gradually take on a more important role in the reorganization and development of industries. According to Fjose et al. (2010), they are able to meet the growing demand for services in their local area, which makes it possible for them to increase their level of specialization. Additionally, they can provide larger businesses with services and inputs.

According to the office of advocacy for the United States small business administration, "the SMEs represent more than 99% of all employers and provide about 75% of all Net new jobs" (Basefsky & Sweeney, 2010). This highlights the significance of the small and medium-sized enterprise (SME) sector to the overall economy of the United States. Only in the United States have small and medium-sized businesses (SMEs) added 34 million new jobs, while huge enterprises on the Fortune 500 list have shed 5 million jobs. According to figures compiled by organizations specializing in international trade and administration, of the 302,000 businesses in the

United States that exported goods in 2011, 98 percent (295,594) were classified as small and medium sized businesses (SMEs). Additionally, the SMEs were responsible for 97 percent (178,820) of the recognized imports in the year 2011. According to Gibson and Vaart (2008), small and medium-sized businesses (SMEs) make up 99% of all enterprises in the European Union, Latin America, and the Caribbean. Furthermore, SMEs are responsible for 67% of employment and produce a diverse range of goods and services. They do, however, have a limited presence in the market for exports; rather, they are primarily focused on the market within their own country. The small and medium-sized enterprise (SME) sector on these continents is essential to the overall economic performance of the economy, particularly with regard to the creation of new jobs and the distribution of income. According to Crowley (2017), there is no other industry that has the capacity to provide a big number of jobs with appropriate incomes. According to the OECD (2010), small and medium-sized enterprises (SMEs) make up 90 percent of all businesses in Asia, yet they only employ 60 percent of the region's population. The industry is responsible for thirty percent of the whole country's exports. Infosys of India, which was established with a capital of US Dollars 250 but has now risen to become a global business with revenues of US Dollars 4 billion (Freel & Robson, 2004), is a notable illustration of the growth of small and medium-sized enterprises (SMEs) in Asia. (Freel & Robson, 2004).

According to what Fjose (2010) noted, small and medium-sized enterprises (SMEs) make up 95% of all firms in sub-Saharan Africa, the vast majority of which are in the informal sector and account for between 40 and 50% of GDP. The participants in the informal sector include small merchandise sellers, producers of simple manufactured goods, as well as manufacturers of processed foods and beverages. According to a

policy research working paper published by the World Bank in 2003 numbered 3127, it was found that the SME sector in Africa contributed to both employment and GDP.

1.1.1 Growth of SMEs in Kenya

Small and Medium Enterprises (SMEs) can be characterized as firms that have an employee base of five to two hundred and fifty employees and are fundamentally geared to improve on their asset base. This is in contrast to the vast majority of microenterprises, which are small and lack the space and capacity for further growth. According to Ayyagari, Demirguc–Kunt, and Maksimovic (2011), small and medium-sized enterprises (SMEs) are intended to expand and search for between two million and two hundred million shillings in investment capital.

Small and medium-sized businesses (SMEs) are extremely important to Kenya's overall economic development and job market. SMEs were responsible for the creation of eighty percent of new jobs in 2014. In Kenya, the term "small and medium enterprises" (SMEs) can also refer to "micro and small enterprises" (MSEs) or "micro, small and medium enterprises" (MSMEs). Micro enterprises are defined by the Micro and Small Enterprise Act of 2012 as businesses that have less than ten employees and a maximum annual revenue of 500,000 Kenyan Shillings. Small businesses have an annual revenue of between 500,000 and 5 million Kenyan Shillings and employ 10 to 49 people. The act does not apply to medium firms, which are defined as businesses that have a turnover of between KES 5 million and KES 800 million and employ between 50 and 250 workers. Medium enterprises have been claimed to consist of businesses like these.

The majority of small and medium-sized enterprises (SMEs) belong to the informal sector known as jua kali, which literally translates to "hot sun" or "fierce sun."

Originally, "jua kali" referred to persons who worked outside in the open air or beneath the blazing sun. By extension, the phrase now refers to those who are self-employed or who work in industries that are on a smaller scale. According to some sources, the term "jua kali" designates any and all businesses across all industries that have between 1 and 49 employees. It would therefore appear that jua kali might refer to MSMEs in either the formal or informal sector. Kenya does not maintain a complete database of small and medium-sized enterprises (SMEs). It has been stated that the number of official SMEs is more in the area of 250,000, despite the fact that estimates place the number of micro, small, and medium-sized firms in Kenya at roughly 7.5 million, with a contribution of approximately 44% to the country's GDP in 2008. According to a news report from CNBC in 2014, the contribution of small and medium-sized enterprises (SMEs) to Kenya's GDP is approximately 45% (Philip, Jaffee, & Okello, 2004).

The micro and small businesses that may be found in city estates and along main roads make up the majority of Kenya's small and medium-sized enterprises (SMEs). A significant portion of Kenya's micro, small, and medium-sized enterprises (SMEs) are located in the Jua Kali sector. In this sector, craftsmen create a wide variety of goods, including shoes, wheelbarrows, metal boxes, and assortments. The artisans are responsible for the production of a wide range of high-quality furniture made from both hard and soft woods, as well as manufactured doors and gates, precious works of art built from scrap metals, and carpets. Every item is customized to perfectly suit the requirements and preferences of the buyer. Their goods are sold almost exclusively on the domestic market or are sent to countries that are members of the East African Community (EAC) or the COMESA area. Inadequate cash, limited access to markets, insufficient infrastructure, insufficient knowledge and skills, and rapid changes in

technology are some of the factors that are holding small and medium-sized enterprises back, according to a report titled Deloitte Kenya Economic Outlook 2016. According to Adefolake (2016), one of the primary obstacles facing this essential component of the economy is the presence of corruption, in addition to other adverse regulatory conditions.

According to information obtained from the Kenya National Bureau of Statistics (KNBS, 2019), small and medium-sized enterprises (SMEs) in Kenya are accountable for approximately 25.6% of the total GDP output. There are around 400,000 micro, small, and medium-sized businesses that do not survive to see their second birthday (KNBS, 2019). The fact that so few make it to their fifth birthday raises questions about the long-term viability of this essential industry.

1.2 Statement of the Problem

The contribution of Kenya's small and medium-sized businesses (SMEs) to the country's overall economic growth has been significant. development has significantly improved on both a regional and a local level, which has resulted in the growth of industrialization and the localization of enterprises in rural areas that are linked with other industries located in metropolitan centers (Wu and Jia (2018). The expansion of small and medium-sized businesses is one of the methods that the government of Kenya intends to pursue in order to realize vision 2030. According to data published by the Kenya National Bureau of figures (KNBS), figures show that three out of every five firms that are started end up failing within the first two years of their existence. Because the Ministry of Trade and Industry in Kenya correctly acknowledges that international trade plays a significant role in the country's economic and social growth, there is an increased need for a greater number of Kenyans to comprehend

and actively engage in the process of international trade. The export of Kenyan goods to many markets in Africa, the Middle East, Asia, the United States of America, and Europe results in the generation of major employment possibilities and the generation of millions of dollars in foreign currency. The severe competition, on the other hand, has caused small and medium-sized exporting businesses to fall behind, which hinders their capacity for achieving sustainable growth. According to Pearce and Robinson (2015), strategic responses are a series of actions and interventions that culminate in the formation and implementation of plans aimed to accomplish the objectives of an organization. It is crucial for the management of a company to have strategic product answers since these responses help in the identification and realization of the vision a product is supposed to have. The term "structural capital" refers to the entirety of a company's non-human knowledge storehouse, which includes routines, databases, policies, and processes in addition to any and all competitive equations. Effective structural capital is capable of facilitating a favorable environment that encourages the sharing of knowledge, the expansion of collective knowledge, the reduction of lead times, and the production of productive persons (Bontis 1998)

Extensive research has been done on the topic of the expansion of small and medium-sized businesses. According to Stephen Kiiru and Kibe Wairimu, (2022), it was discovered that the majority of businesses utilized product development strategy to a considerable amount by identifying new markets for their new existing products. This was done as part of their product development strategy. According to the findings of the study, the majority of entrepreneurs selected a strategy for product creation that targeted particular market niches. The research reaches the additional conclusion that differentiation strategy has a favorable and significant influence on the performance of businesses that provide business development services.

According to research carried out by Samuel Odongo and Micah Odhiambo (2016), product development strategy is one of the most prominent methods of expansion utilized by small and medium businesses in Kenya. According to the findings of Kavale, Mugambi, and Namusonge (2017), certain elements related to strategy, including grand strategy and differentiation strategy, among others, had a beneficial impact on the corporate growth of microfinance institutions in Kenya. According to the findings of Kiveu, Namusonge, and Muathe (2019), there are relatively few empirical studies that link innovation to the level of competitiveness in manufacturing SMEs in Nairobi.

When it comes to resolving the strategic product responses and the growth of export manufacturing small and medium sized firms in Nairobi county, Kenya, the local studies that have been performed fall short. A study that addresses and informs on this topic is required in order to fill this knowledge gap, as well as to provide an acceptable conceptual framework for future studies that are analogous to this one. Studying the moderating effect of structural capital on the relationship between the strategic product responses and the growth of export manufacturing small and medium sized enterprises in Nairobi county, Kenya will help both the management of SMEs and policymakers of the governing body to avert the variety variety of difficulties that always hinder their growth, which will in turn stimulate economic growth over a long period of time. As a result, the purpose of this research was to analyze strategic product responses, structural capital, and the growth of small and medium export manufacturing enterprise in Nairobi County.

1.3 Objectives of Study

The study was guided by both the general and specific objectives.

1.3.1 General Objective

The general objective of the study was to investigate the moderating effect of structural capital on the relationship between strategic product responses and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.

1.3.2 Specific Objectives

i. To establish the effect of product design response on growth of export manufacturing small and medium enterprises in Nairobi County.
ii. To determine the effect of product development response on growth of export manufacturing small and medium enterprises in Nairobi County.
iii. To assess the effect of product differentiation response on growth of export manufacturing small and medium enterprises in Nairobi County.
iv. To evaluate the effect of product innovation response on growth of export manufacturing small and medium enterprises in Nairobi County.
v. To examine the moderating effect of structural capital on the relationship between product design response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.
vi. To examine the moderating effect of structural capital on the relationship between product development response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.

vii. To examine the moderating effect of structural capital on the relationship between product differentiation response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.

viii. To examine the moderating effect of structural capital on the relationship between product innovation response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.

1.4 Research Hypotheses

Ho_1: Product design response has no significant effect on the growth of export manufacturing small and medium enterprises in Nairobi County.

Ho_2: Product development response has no significant effect on the growth of export manufacturing small and medium enterprises in Nairobi County.

Ho_3: Product differentiation response has no significant effect on the growth of export manufacturing small and medium enterprises in Nairobi County.

Ho_4: Product innovation response has no significant effect on the growth of export manufacturing small and medium enterprises in Nairobi County.

Ho_5: Structural capital has no significant moderating effect on the relationship between product design response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.

Ho_6: Structural capital has no significant moderating effect on the relationship between product development response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.

Ho_7: Structural capital has no significant moderating effect on the relationship between product differentiation response and the growth of export

manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.

Ho_8: Structural capital has no significant moderating effect on the relationship between product innovation response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.

1.5 Scope of the Study

The study was confined to strategic product responses as the independent variables, structural capital as the moderating variable and the growth of small and medium enterprises as the dependent variable. The investigation was carried out in all export manufacturing small and medium enterprises within Nairobi County and data was gathered from the top level managers of the enterprises on the consideration that these people have the information of interest to the researcher regarding strategic product responses, structural capital and growth of export manufacturing small and medium enterprises. The export manufacturing small and medium enterprises was selected from The Nairobi County Council, as at December 2021. Explanatory research design was used in order to guide the entire research process. Data was gathered during the month of August, in the year 2023.

1.6 Significance of the Study

The study is significant in contributing to both research and practice in strategic management, export manufacturing small and medium enterprises and in general growth of SMEs. Scholars will benefit from this research as source of academic and research literature in strategic management and growth of export manufacturing SMEs. The study will continue to be important to policy makers as it will assist them to make decisions related to management of export manufacturing SMEs. It will assist

policy makers to understand the strategic product responses and the growth of export manufacturing SMEs. The study will continue to be important to the managers of the export manufacturing SMEs when making decisions and understand more on growth of SMEs which has been elusive in most export manufacturing SMEs. The government will benefit from this study as it will help it in making decisions that can provide a conducive environment in the SMEs industry.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviewed the extant literature related to the study. It also presented the concepts of firm growth, strategic product design response, strategic product development response, strategic product differentiation response, strategic product innovation response and structural capital. It also presented the theories grounding the study. A conceptual framework of the study was presented .The research gaps and a summary were also presented.

2.1 The Concept of Firm Growth

Corporate growth of a company is frequently and closely related with the overall performance and survival of the company, and it has been utilized as a straightforward measurement of a company's level of success in industry. Growth has been defined as an extremely relevant a measure of performance for surviving organizations, and this has been the case for quite some time. The attainment of a company's other financial objectives is contingent upon the company's ability to sustain its expansion (Coad, 2009). It is important to emphasize the significance of corporate expansion as a prerequisite for maintaining the firms' capacity for viability, dynamism, and value enhancement. A growth-oriented firm is more likely to be sustainable unlike non-growing or low growing firm (Mateev and Anastasov, 2010). Firm growth is fundamentally a multidimensional phenomenon. According to Delmar, Davidsson, and Gartner (2003), some potential indications of growth are assets, employment, market share, physical output, profits, and stock market value. Sales are another important sign. The proportion of market share, the amount of sales, capital base, amount of loans disbursed, turnover of stock, and rate of acquiring new clients are all

examples of quantitative indicators (Pervan & Milkota, 2013). Other quantitative measurements include a firm's productivity, financial profitability, asset base, return on investment (ROI), and return on investment (ROI). Measures of quality include things like customer service, influence on society and the environment, increased financial depth, and increased economic empowerment. (Meyer, 2007, Ankrah, & Mensah, 2015). This study used profits, revenue, production volume and capital base.

2.2 The Concept of Strategic Product Responses and Firm Growth

This section covered the concepts of the following strategic product responses; strategic product design, strategic product development, strategic product differentiation and strategic product innovation.

2.2.1 The Concept of Strategic Product Design Response

A product strategy is a vision for the coming years of a brand that outlines an approach that involves the creation of products or services that resonates consumers, the brand's vision, and the business objectives of the brand. Ability to go farther than the initial focus of just one product or service is an important aspect of the product design process. This enables designers to understand how various products or services interact with each other and the user to build a consistent brand image that appeals to the fundamental brand values. Product design, product strategy, and strategic design are the three components that make up strategic product design. Because new goods make a major contribution to sales revenue and because businesses that are able to generate distinctive goods have a capacity to set premium prices (Ittner & Larcker, 2015), product design is a critical component of the overall strategy planning process for many businesses. According to Dirisu, Iyiola, and Ibidunni (2016), product design is an essential component in expanding a company. This is because product design

determines the quality, usefulness, and efficiency of a service or product that customers require. The purpose of product design is to develop a good or service that possesses excellent practical functioning and generates outstanding revenues at a cost that is acceptable and in a time frame that is reasonable. According to Raible (2013), industrial theory is an important factor in the way in which a corporation chooses its strategy and makes its decisions. If you don't have a plan, it's easy to get caught up in thinking about the immediate future, which can lead to the development of features that don't contribute to the achievement of your long-term objectives. According to Clarke and Fujimoto, successful product development is dependent on the ability of a product's design to generate a pleasant experience with the product. Developing a product design plan has several benefits, some of which include improving customer happiness, increasing sales, and gaining a competitive advantage. These are just a few of the many benefits.

2.2.2 The Concept of Strategic Product Development Response

Product development is best understood as a concentration on the requirements of existing customers as well as those of broader client markets. Product development is the process by which a company maintains its presence in its existing markets while simultaneously developing new products for those markets (Kotler, 2000). The idea that new goods are beneficial to the financial health of sponsoring firms is one that has received a lot of support from academics over the years. Schumpeter, for example, held the opinion that inventive new products, when they are first launched to the market, encounter minimal direct competition and, as a result, allow sponsoring enterprises to achieve relatively high levels of profitability. It is expected that these high profits will fade over time as a result of copying and competition, according to his argument; however, businesses that continue to introduce inventive new goods

may be able to enjoy high profitability for a protracted period of time. There is a significant body of research, and it is still expanding, that demonstrates a favorable association between innovation and the profitability of firms. Clark and Fujimoto state that the performance of a company in a development project is determined by the product strategy of the company as well as the capabilities of the company in terms of overall process and organization. In addition to this, they assert that the products of companies contribute to the formation of the market environment; the nature of the market environment shifts as a result of the knowledge gained by consumers and competitors regarding new products and services. According to research done by Goedhuys and Veugelers (2008), inventive performance is a crucial factor in the expansion of a company, particularly when it comes to the combination of product and process innovations, which considerably boosts the expansion of a company. the financial markets may have a high degree of responsiveness to the results of product development in publicly traded companies (Anurag and Nelson , 2004).

2.2.3 The Concept of Strategic Product Differentiation Response

Product differentiation refers to the process of developing goods so that they can fulfill the requirements of specific consumers. a firm gains a competitive edge when it develops, designs, and distributes a product in a way that more effectively serves the demands of its customers than what its competitors do, and when it chooses the appropriate pricing option, which results in a level of demand that maximizes the company's capacity to turn a profit (Hill and Jones, 2004). Product differentiation is a process in which distinctive qualities are added to products in order to increase their appeal to particular types of consumers. According to Kasera and Kasera (2006), a differentiation strategy begins with the belief that a company can achieve a competitive advantage for its product by emphasizing specific qualities. Product

differentiation tactics are a potent means of acquiring competitive advantages and are widespread in market economies because of their prevalence. Value may be created in businesses either through cost leadership or through distinctiveness. According to Hingley et al. (2006), companies use the differentiation strategy to differentiate their products in order to steer clear of destructive price competition and search for some sort of monopoly rent. In proportion to the degree to which a differentiation strategy provides businesses with market power, it also has the potential to raise entry barriers into the industry by strengthening customer loyalty to unique products.

Product differentiation can be achieved by developing a positive image for the brand, equipping the product with unique characteristics that set it apart from similar offerings from competitors, and capitalizing on opportunities to engage in other activities contained within the value chain, such as providing quality products and after-sale support to customers. According to, if differentiation is successful in an industry, it can become a practical strategy for earning above average returns in that industry. This is due to the fact that distinction creates a safe position for coping with the market competitive dynamics. Differentiation offers defense against competitive rivalry since it encourages brand loyalty among customers, which in turn results in lower price responsiveness while improving margins. Differentiation can also increase the size of an organization's market share.

The secret to acquiring new clients and keeping the ones you have is to demonstrate that you understand their requirements and the buying process better than your rivals do and to provide greater value (Kotler and Armstrong, 2002). Differentiating brands is possible on the basis of a number of distinct product or service dimensions, including product form, features, performance, conformance, reliability, style, and

design, as well as such service dimensions as ordering ease, delivery, installation, customer training and consulting, as well as maintenance and repair(Kotler and Keller, 2007).

2.2.4 The Concept of Strategic Product Innovation Response

According to the OECD Oslo Manual (2005), product innovation is defined as the introduction of a good or service that is new or significantly improved with respect to its features or intended use. This can include substantial enhancements in technical specifications, parts and materials, established software, user friendliness or other functional features. The introduction of new goods is unavoidable for every company that values continued relevance and financial viability. There are numerous ideas that have been produced over time that tend to highlight the connection that exists between product innovation and the performance of organizations, and these theories may be found herein. According to Vermon's theory of the product life cycle, which was used in Kulkarni's (2009) work, a product passes through five stages in its lifetime. If the product is not updated at some point, it will eventually become irrelevant, uninteresting, or obsolete. The product life cycle theory was authored by Kulkarni. Businesses have to put a significant amount of money into market research initiatives in order to be able to identify shifts in customer requirements as the product progresses through its productive life. In the course of their productive lives, products, much like living beings, go through a variety of stages, such as the stage of invention, the stage of maturity, and the stage of decline, which together form a unique cycle in the life of the product. According to Kulkarni (2009), these stages are distinguished by particular characteristics, which influence the amount of time a product spends in each stage as a function of the marketing methods that are implemented. If there aren't any ongoing advancements made to the items, they will deteriorate and eventually

perish just like any other living thing. in order for businesses to maintain their current levels of profitability and continue to experience expansion, a consistent and well-planned approach to the development of new products is required (Palmer, 2000). This theory has demonstrated that products do not last for all of time. At any point during the product life cycle, one must employ aggressive marketing methods in order to lengthen the lifespan of the product. Differentiation tactics, changes, and product positioning techniques, as well as new inventions in their whole, could all fall under this category of strategies.

2.2.5 The Concept of Structural Capital

To be able to assist in the growth of an organization's business in light of the current state of the economy, which is undergoing rapid change, it is urgently necessary to conduct an assessment of structural capital. The manner in which an organization invests and makes improvements to its structural capital is a critical factor in determining how successful it will be in the long run. The concept of a company's structural capital can have a range of different effects on that company. If these ramifications are understood and well managed, the company will be in a stronger position over the long run, which is especially important considering the current state of the market. The primary responsibilities include the development of structural capital as well as the asset extraction of human and relational capital. It is essential to acknowledge the existence of structural capital due to the fact that this capital will always remain under the control of the organization. This is a reference to the concept that the structural capital can be utilized to influence and extract the human capital. On the other hand, it is important to point out that the capital structure can be utilized in the same manner as the relational capital. This can be explained due to the human nature of the interactions that exist between external organizations and their

customers. The worth of an organization's assets is derived from its structural capital, which is considered by many academics to be a component of knowledge. It would appear that the production process and the development process are intertwined. In light of this, when considering the two functions, the focus should be on their interdependence, given that one role cannot be successfully done without the other.

Even if an organization's structural capital consists of policies and a culture that are vital to its operations, there are situations in which these aspects of an organization's capital are not properly integrated with its other assets, such as its human and relational capital (Bose and Oh, 2004). These situations can be problematic for an organization's ability to function effectively. According to Wuscher et al. (2014), the term "structural capital" refers to "all those structures which are accessible to the staff for the purpose to execute out and enhance the business operation as a whole." In other words, the structural capital encompasses everything that the employees have access to. an organization's structural capital is its only property, and successful management of this capital enables the generation of shareholder value, as well as a lasting competitive advantage and increased market share(Van Zyl, 2005). In order for an organization to have strong structural capital, there must be a culture of support that encourages people to experiment with new ideas and learn from their errors.

According to Carson et al. (2004), the ability of structural capital to facilitate the transfer of knowledge has the potential to make a contribution to the growth of human capital. Policies and organizational culture are both considered part of the structural capital. In the event that these policies are supportive of culture and knowledge that is environmentally friendly, then the human and relational capital can be developed and obtained with greater usefulness. individuals have the ability to interact with other

individuals or groups to exchange information when they make use of a information and communication technologies (Kermally, 2002). This contact may be made easier by making use of the structural capital, which functions as an instrument for doing so. Culture is also quite important, as was previously said. The culture of the company needs to be developed so that it is more open to learning and sharing. That falls under the category of structural capital. It is therefore an intangible resource that is held by the organization, and it seeks to encourage the sharing of knowledge in order to provide organizations with a culture that will enable them to survive and prosper in the present market conditions. Knowledge that aids in the clarification, systematization, and internalization of information is referred to as structural capital in an organization. To summarize, structural capital plays an important role in allowing managers and employees to effectively stimulate human capital, which is necessary for effective tracking of organizational goals and the realization of profits in this respect.

2.3 Theoretical Framework

This part covered the discrete choice theory of product differentiation, the diffusion of innovation theory and the chasm theory of growth.

2.3.1 Discrete Choice Theory of Product Differentiation

According to Anderson et al., the degree to which a product is differentiated from its competitors in terms of its quality, packaging, design, colour, and style has a significant bearing on the choices that consumers make. Additionally, this provides a rich amount of data that has, for the most part, not been studied despite the fact that to date there has been no universally acknowledged way to represent the information that is currently available. It is essential to have a solid understanding of product

differentiation if one is interested in comprehending the workings of contemporary market economies and the fact that differentiated markets can be analyzed utilizing discrete choice models of consumer behavior. It provides a valuable synthesis of prior, sometimes extremely technical work in both differentiated markets and discrete choice models, and it extends this work to establish a cohesive theoretical framework for research in imperfect competition. This work may be found in both differentiated markets and discrete choice models. There are a number of other product differentiation models, but the discrete choice form is the most common. These models have the benefit of building demand from a clearly defined utility for the qualities of items, which is one of the models' many advantages. The fact that they often force each customer to consider purchasing no more than one unit of a good is a regrettable constraint on consumers' ability to exercise discretion. This hypothesis is significant to this investigation because it elucidates the part that product differentiation plays in the expansion of a company.

2.3.2 Diffusion of Innovation Theory

The Diffusion of Innovation (DOI) Theory is one of the oldest theories in the field of social science. It was first proposed by E.M. Rogers. It describes how, over the course of time, a concept or product builds momentum and diffuses (or spreads) within a particular population or social system. The end outcome of this process of diffusion is that individuals will eventually adopt a new idea, behavior, or product as being a part of the social system. When a person makes a change in their behavior from what they had been doing in the past, such as when they buy or utilize a new product, this is considered adoption. The idea, behavior, or product in question must initially strike the individual as novel or pioneering in order for them to adopt it. Diffusion is able to take place due to the fact that this makes it possible. The process by which certain

people are more likely to adopt a new idea, behavior, or product (innovation) than others is called adoption. Innovation can refer to a new concept, behavior, or product. In a social system, this phenomenon does not take place simultaneously. The traits of people who adopt a new technology early on are distinct from those of those who adopt a new technology later on (Hager, 2006). This hypothesis is significant to this investigation because it offers an explanation of the part that product innovation plays in the expansion of a company.

2.3.3 Chasm Theory of Growth

According to the life cycle idea of a company, Chaston (2010) proposed that a new chasm needs to be crossed before moving on to the subsequent stage of growth. There are five distinct categories of chasms, which are as follows: launch capacity, expansion, organizational formalization, succession, and long-term growth. In order for leaders to successfully cross each chasm, they will need to acquire new talents and learn to prioritize managerial tasks inside the firm. In addition, it's possible that certain leaders will require more time to proceed from one chasm to the next, while others will easily get through the process. It's possible that not being able to transcend chasm 1 is due to a lack of financial backing or a non-viable way to access new technology. In order to get over Chasm 2, the leader needs to be able to boost sales and create more demand for their product or service. It will be necessary to increase capacity in order to go across chasm 3. It is necessary to satisfy the demand with the supply that is appropriate. Chasm 4 will be more difficult to pass if an official organization structure and professional manpower are not put into place. A thriving company will inevitably require the services of an experienced successor. It is possible for the entrepreneur to choose to either promote from inside the company or bring in a new top executive from outside the organization. The failure of the

company to bridge chasm 5 may be caused by an inefficient replacement for the company's founder. On the other hand, if these concerns are adequately addressed, the company will experience expansion at the most senior levels (Levie & Lichtenstein, 2010). This theory's significance lies in the fact that it offers an interpretation of the expansion of SMEs.

2.4 Empirical Review

This part reviewed related literature on concepts of strategic product design, strategic product development, strategic product differentiation, strategic product innovation and SMEs growth.

2.4.1 Product Design Response and SMEs Growth

The provision of goods and services to a specific consumers should be the driving force behind any and all businesses. As a strategy for both survival and expansion, every corporate organization needs to constantly conceive of, create, and launch new products. Converting ideas into working products is what product design is all about. The performance of an organization is dependent on the organization's selection of the appropriate strategy to deal with an environment that is both complicated and constantly shifting. Therefore, the performance of the organization is related to how well an organization comprehends particular modifications in the surrounding environment and responds strategically to such shifts. Kareem (2017). A competitive advantage can be gained by an organization in a number of different ways. One of these ways is through the development of new designs for products that, in comparison to those already on the market, are either quicker to bring to market, better able to fulfill the requirements of customers, or simpler to manufacture, use, and repair. George, Walker, and Monster (2019) make the observation that

organizations differ according to the relative influence of a number of elements connected to both the purpose of the organization as well as the tools and techniques selected to attain them. The goal of strategic product design is to establish a connection between design thought and the value created for businesses. It all comes down to making educated selections that will lead to a finished product that is a success — one that is both profitable and appealing to the target audience. A successful product design strategy places the user's needs front and center at all times, and it also needs to do the following: Offer insights that are supported by research in order to aid in the success of the product, direct the design team in the direction of the appropriate solutions, and incorporate the input from users, other disciplines, and departments into the design process. A company can more easily realize its long-term product goal if it has solid product design strategies in place. They are the means by which one determines what to build and the manner in which one should construct it. It is essential for commercial banks to have a distinct product strategy from the very beginning since it will serve as the foundation for all of the decisions that are made regarding the product. It is quite easy to get caught up in thinking about the short term and end up designing features that don't help the commercial banks accomplish their long-term goals if there isn't a strategy in place to prevent this. Increasing client happiness and sales are two of the primary outcomes that may be anticipated from the implementation of a product design strategy, in addition to providing the company with a competitive advantage in the marketplace.

Definition of the firm's vision is the first step toward developing a successful product design strategy; at this stage, companies should ask themselves the following questions. What are some of the goals that you hope to accomplish with this product? In what way does it contribute to the overarching strategy of your

company? Which of your clients' needs does it fulfill with this offering? If you answer these questions, you will be able to create a clear design brief that will serve as a map for your team to follow during the entire process of developing a product. Research and discovery are the foundations upon which companies must construct their vision. What are some of the goals that you hope to accomplish with this product? In what way does it contribute to the overarching strategy of your company? Which of your clients' needs does it fulfill with this offering? If you answer these questions, you will be able to create a clear design brief that will serve as a map for your team to follow during the entire process of developing a product. The product teams are better able to connect the vision to actual user concerns as a result of the facts discovered during discovery. Develop user personas for the users you intend to target. User personas are fictional representations of the types of clients or consumers you want to attract. They are documents that you make available to the entire design team, and they are an aggregation of the user research that you have conducted. Each persona ties back to the same common issues, challenges, and objectives that were shared by the users you met and examined. Make your product stand out from the competition by differentiating it. Differentiation is one of the most crucial parts of any design approach. It is not sufficient to understand your users; you also need to comprehend the types of items that you will be competing against. You also need to be completely transparent about how your solution compares to other available options in the market. Your approach needs to be validated, and now is the time to start thinking of potential answers. Construct prototypes and test them out on users as early and frequently as possible. Gather insightful input from your customers, improve your designs based on that feedback, and continue the process. According to Ngaira (2018), business strategies that are developed in reaction to a shifting business

environment should involve managers in the creation of such strategies and offer managers enough decision-making authority in the process of putting those strategies into action. Therefore, in order for businesses to continue to remain one step ahead of their rivals, they should regularly and aggressively scan the environment while also accelerating the implementation of their initiatives.

2.4.2 Product Development Response and SMEs Growth

Product development is the process of introducing a new good or service that is significantly improved in terms of its characteristics or intended uses. This can include significant improvements in terms of technical specifications, components and materials, incorporated software, user friendliness, or other functional characteristics. It is possible to classify a product development as either radical or gradual based on the amount of change that is linked with it. The actions of an organization, business, or society can undergo radical transformations as a direct result of radical advancements, which also constitute distinct breaks from the norms that have previously been followed. On the other hand, incremental developments primarily focus on enhancing the capabilities that an organization already possesses, therefore they only require very minor adjustments to be made to its already established procedures. Both the times and the markets have evolved. Karaba (2020) found that firms in Kenya rated product development as a factor 81.2% of the time, which indicates that product development contributes to the attainment of a competitive advantage in the business industry in Kenya. Even during the past five years, many businesses have lost the near-monopoly market position they once possessed. They are now subject to punishment not only from their own internal controls but also from the marketplace. This new competitive environment implies that in order to serve their markets effectively, they need to become more responsive to the needs of their

customers as well as the threats posed by competitors through its products and services. It does this by continually refining these products and services in order to maintain the loyalty of its customers, who are essential to the company's long-term viability. A product development plan will either involve the creation of new products or the modification of existing products in order to give the impression that they are new. These products will then be offered to existing markets or to new markets. It has the potential to contribute to an increase in sales and market share if it is carried out effectively. According to Berger (2003), the key parts of technological change include advances that lower costs connected to the collection, storage, processing, and transmission of information, as well as advancements that modify the methods by which customers use these services. Specifically, Berger contends that developments that reduce costs related to the collection, storage, processing, and transmission of information are the most important. It is possible to credit the establishment of a formalized new product development function to the needs of corporations operating in a capitalist system to maintain a competitive advantage in the marketplaces in which they operate. This is a condition for both the survival and expansion of a corporation, thus it is essential that these companies do whatever it takes to ensure they do so.

Product development can be understood as a concentration on the requirements of existing customers as well as those of broader client markets. According to Kotler (2000), product development is the process by which a company maintains its presence in its existing markets while simultaneously developing new products for those markets. The idea that new goods are beneficial to the financial health of sponsoring firms is one that has received a lot of support from academics over the years.

2.4.3 Product Differentiation Response and SMEs Growth

Product differentiation entails developing a product that is regarded as distinct from others, thereby increasing its appeal to a specific target market. Product differentiation strategy is crucial to the achievement of any company in developing or modifying a product to make it appear appealing and distinct from its rivals (Yulianti and Nasution, 2020). Product differentiation elucidates the distinctions between the offerings of an organization's products or services and those of its competitors with the intention of demonstrating the distinctive qualities of the firm's product and generating a perception of value that enhances the firm's performance (Allen, Chandrasekaran, & Basuroy, 2018). In recent years, the financial industry has experienced an unparalleled degree of competition, both from within and outside the organisation (Chen, Nazir, Hashmi, & Shaikh, 2019). Product differentiation is a critical factor in fostering firm expansion and attaining a competitive edge. Ekeagbara, Ogunnaike, Olaleke, Ibidunni, and Kehinde (2019) assert that competitive strategies are crucial for organisations as they bring upon them an advantage against rival firms. When a company effectively executes the product differentiation strategy, it delivers distinct or exceptional value to its customers via product quality, features, or post-purchase support and service. In the past thirty years, research has demonstrated that differentiation occurs when a company provides a service or product that consumers perceive as distinct (Barney, 2006). A company's competitive strategy comprises all of its current and past actions and methods designed to entice customers, sustain competitive pressure, and strengthen its position in the market. Differentiation entails developing a product that is regarded as distinct and accomplished through the provision of a valuable alternative to the tangible product. Across a continuum, the ability to differentiate a product varies considerably,

contingent upon the particular product in question. Differentiation is possible and enables a company to target specific market segments, according to Armstrong and Kotler. Product differentiation is achieved by manipulating a variety of attributes, including performance, style, design consistency, durability, reliability, and reparability.

Differentiation is an extremely broad concept that incorporates far more than a single factor, such as quality. In order to establish differentiation for industrial, commercial, and institutional purchasers, a company must possess a distinct capability to generate competitive advantage. It is anticipated that the implementation of a product differentiation strategy by an organisation will strengthen its competitive edge, thereby driving it towards exceptional performance. This is due to the fact that this approach enables companies to contend with competitors in the industry by utilising a metric other than price (Amar, 2016). Services are frequently distinguished by their speed, quality, performance, availability, responsiveness, and ease of integration. When an organisation possesses one particular product or service to offer potential consumers, it would be wise for it to think about the utilisation of accessories, partnerships, or alternative approaches in order to establish a range of levels that appeal to its future consumers.

The objective of differentiation is to increase the appeal of a product by juxtaposing its distinctive attributes with those of its competitors. Occasionally, differentiation can be achieved through the development of a novel advertising campaign or other sales promotions, as opposed to a complete product redesign. This may be achieved via an expanded merchant network, superior product design, technology, or customer service, amongst other factors. For this approach to achieve success, the distinctive

attributes or advantages must deliver exceptional value to the client. This is due to the fact that when customers perceive a product as unparalleled and incomparable, fluctuations in the quantity supplied in response to demand for that service or product tend to be diminished, and customers are more likely to exhibit brand loyalty. Companies operating in Kenya must be capable of promptly and precisely recognising shifts in customer demands, designing and developing increasingly intricate products to meet those demands, and delivering superior levels of customer service and support. The current landscape of deregulatory policies presents the SME sector with intense competition (Reynolds, 2005). Successful product differentiation strategies yield superior performance and a competitive advantage (Porter, 2004).

A firm's ability to maintain the competitive advantage it possesses is critical to the sustainability of that advantage. As a consequence of the country's drastically altered business climate, a number of small and medium-sized enterprises (SMEs) have opened subsidiaries throughout the nation, thereby increasing industry-wide competition (Porter, 2004). In light of the escalating competition in the marketplace and the rapid pace of innovation, as well as the pressures imposed by the emergence of a global knowledge-based economy, organisations have come to recognise that product differentiation strategies constitute their most valuable asset (Snyman and Kruger, 2022). Kenyan businesses have realised that in order to offer value and win over customers, they must identify changes in customer needs with speed and precision, create and produce more complex goods to meet those needs, and deliver superior customer support and customer service. The majority of companies, for instance, have participated in product design and development. A diverse range of products is developed to cater to various consumer segments within the Kenyan and regional markets. The companies employ robust and persuasive marketing

communication strategies to promote their products, emphasising distinctions in service quality and reduced prices for different items. Product pricing strategies serve to diminish the intermediary costs linked to transactions, thereby generating cost savings for both the Kenyan economy at large and individual Kenyans.

Differentiation in the context of business can be accomplished through the utilisation of a diverse range of products. Organisations have the ability to address unfulfilled consumer demands through the development of an assortment of products that possess distinctive attributes. This strategy not only sets them apart from competitors but also attracts a greater customer base, ultimately leading to an improved market position (Pomoni, 2010). Conversely, organisations may provide services that surpass those of their rivals. It has been discovered that quality superiority generates significant performance-related advantages, including increased customer loyalty, agility in meeting demand, expansion of market share, and enhanced productivity (Aaker, 2012). Additionally, other strategies that businesses may choose to implement is the differentiation based on user convenience. Chang and Polonsky (2012) define convenience as the capacity to decrease the non-monetary costs (time, energy, and effort) incurred by consumers when acquiring or utilising products and services. The ability of customers to conduct transactions using their mobile devices instead of visiting the physical location of the business in order to purchase a product or service confers a competitive edge on the firm and contributes to their growth, as customers perceive these offerings to be distinctive or superior. Diversification of products can be accomplished in numerous methods. It could be something as straightforward as innovative packaging for the products or as complex as the integration of new functional attributes. By embracing mobile money, organisations have the ability to provide clients with informational or transactional services in addition to payment

capabilities (Dimitriadis, Kyrezis, & Chalaris, 2018). Consensus holds that solid service quality is an essential requirement for retaining and gratifying valued consumers (Tee, Preko, & Tee, 2018). Additionally, businesses can implement product marketing differentiation to improve performance by employing effective promotional strategies, utilising well-established brand communication systems, and customising or segmenting products (Asiedu, 2016).

2.4.4 Product Innovation Response and SMEs Growth

The process of systematically identifying unfulfilled consumer needs within a specific market and determining which of those needs to concentrate on for expansion constitutes an innovation strategy. By prioritising and identifying unfulfilled customer requirements, an organisation can increase its market share or profits via consistently effective product and service innovation. Innovative organisations never experience complacency in the face of success, as stated by Futterer, Schmidt, and Heidenreich (2018). Constantly on the lookout for innovative and inventive approaches that could aid in the improvement of their products and working procedures. Product innovation plays a pivotal role in growth strategies as it enables organisations to penetrate new markets, expand their current market presence, and gain a competitive advantage. Strategic innovation is recognised as a critical element in the operations of prosperous organisations (Kasemsap, 2017).

According to Olsen and Hkansson (2017), a creative team oversees innovative businesses. Innovative managers understand the value of an inventive workforce and will invest in their development without hesitation. Employees are encouraged to generate innovative ideas that can optimise work processes and increase productivity through the use of effective innovation training programmes. In the contemporary

landscape characterised by intense competition, every organisation strives to surpass its rivals and acquire new customers. Knowledgeable individuals serve as a catalyst for the development of creative ideas and advancements. The process of innovation creation is complicated and necessitates simultaneous manifestation and operation of multidimensional internal transformations, including but not limited to resource capability, organisation innovation, and new product development (Hana, 2020). The organisation must consider market share, customer requirements, and effective strategy (including differentiation, cost leadership, and focus strategies) in order to maintain a sustainable competitive advantage with these elements. In the manufacturing industry, innovation is regarded as a critical success factor, as well as a prerequisite for satisfying customers and fulfilling their needs. It requires companies to generate a competitive advantage by implementing a novel concept at a time when they have had comparable opportunities to offer low-cost products. The implementation of innovative practises within an organisation can yield various benefits, including streamlined administrative processes, expedited service provision, heightened user information accessibility, enhanced employee satisfaction, and decreased expenditure (Rasul & Rogger, 2017). In order to safeguard the interests of stakeholders and ensure commendable organisational performance, the increasingly competitive business environment has compelled organisations to implement systems and procedures that ensure such performance. Numerous solutions have been devised in pursuit of this objective, guaranteeing the attainment of intended organisational results regardless of the complex nature of competition. The notion of innovation has experienced significant growth in prominence within the realms of business theory and application. Innovative organisations that achieve true success, according to Ravichandran (2018), implement an efficient IT infrastructure that facilitates the free

movement of data. This type of system facilitates the exchange of ideas and information without interruption, resulting in increased organization-wide collaboration and participation. Executives should solicit new ideas from all levels and individuals, both inside and outside the organisation, top-down and bottom-up, according to Acosta, Popa, and Marqués (2016).

Innovation implementation and business leadership must continue to be supported and visible to all levels of management, both in words and deeds. Excessive numbers of innovations that fail to meet expectations upon initial inspection are deemed unsuccessful and incur substantial costs, according to Vladimirova and Evans (2018). Others are never subjected to actual customers because they become mired in analysis paralysis. Every innovation-oriented organisation implements streamlined systems and procedures that foster ingenuity at each stage. It is widely recognised that introducing a new or significantly enhanced product into new markets and safeguarding the existing market are effective means of gaining a competitive edge and fostering sustainable development. Furthermore, successful innovations are anticipated to gain a competitive edge through reduced production costs, enhanced product quality, and adaptation of existing products to customer specifications. Therefore, innovation has the potential to spur advancements in the quality, design, and customization of current products, thereby bolstering the overall growth of the organisation.

Additionally, businesses in Kenya have acknowledged the immense potential that product innovation presents for the nation's progress. In the past, business expansion in Kenya was comparatively sluggish; this could be ascribed to a dearth of ingenuity and unsupportive government policies regarding product innovation. Due to these

factors, businesses relied heavily on imported technologies to address local issues, which was completely unfeasible as numerous businesses and government partnerships ultimately ceased operations.

Kenya has garnered attention in recent years as a continent to be monitored in terms of product innovation. Recent innovation among Kenyan businesses has contributed to their expansion into multinational corporations. Despite facing intense competition from other mobile operators, Safaricom, for example, has maintained its position as the most profitable firm in Kenya through its renowned mobile money transmission services. The implementation of mobile money, an innovation embraced by nearly all businesses and thus saving time, enables certain small and medium-sized enterprises (SMEs) in Kenya's business sector to offer transactional or informational services via product innovation strategies. The current state of local product innovation in the industry can be ascribed to a paradigm shift away from previous approaches that focused on improving technologies. The majority of companies in Kenya have branches around the nation. Innovation is the driving force behind this expansion. The expansion of the business sector in Kenya was facilitated by the implementation of new technologies and product innovations.

By enabling a broader perspective of consumer behaviour, technologies facilitate the development of stronger customer relationships and contribute to the expansion of businesses (Thompson, 2006). Therefore, in order to enhance their capacity to comprehend customer behaviour, construct predictive models, establish efficient customer communications, and provide timely and accurate responses, organisations must integrate IT (Chen & Popovich, 2003). Tasks are completed with greater speed

and precision when sophisticated technologies are utilised, thereby fostering the expansion of the organisation.

By no means was it previously feasible to cultivate stronger relationships in the offline world; this concept is fundamental to the information technology revolution and, more specifically, the World Wide Web. Companies are now in an unprecedented position to establish, cultivate, and maintain long-lasting customer relationships by integrating the capabilities of promptly responding to customer enquiries and delivering a highly interactive, personalised experience.

2.4.5 Structural Capital as a Moderator

The antecedent of Structural Capital, which comprises non-human assets such as information systems, routines, databases, and procedures, has been extensively examined (Cleary, 2015; Wang, Wang, & Liang, 2014). It establishes the framework for the organisation by supplying the necessary instruments and structure to safeguard, package, and disseminate knowledge among every stakeholder in the value chain (Manzaneque, Ramírez, & Diéguez-Soto, 2017; Bontis, 2001). The objective is to explain the crucial function that Structural Capital serves as an antecedent or moderator in the relationship among strategic product responses and the growth of SMEs. Structural capital comprises an amalgamation of elements such as organisational policies, information systems, competitive intelligence, patents, formulations, and products and systems that have been developed over the course of an organization's existence (Archer-Brown & Kietzmann, 2018). A non-commutable resource that is challenging, if not impossible, to replicate, it significantly contributes to the establishment and maintenance of the firm's competitive advantage (AlQershi, Abas & Mokhtar, 2019). It signifies the organization's capacity to figure out which

critical strategies to put into effect (Muhammad, 2014). This is demonstrated through the capacity of a company's technical personnel to generate patents that enable a reduced number of workers to finish a given task in comparison to rival firms. The likelihood that an organisation will achieve strategic product design, strategic product development, strategic product differentiation, and strategic product innovation of new services and products that could increase its market share is directly proportional to the number of knowledgeable employees (Wang et al., 2014). The competitors' capacity to utilise alternative resources intensifies competition and diminishes the competitive edge of individual companies. As a result, interaction and internally developed capabilities and resources, in particular, stimulate the expansion of an organisation (Zaheer and Bell, 2005). The anticipation regarding strategic product responses is that their significance to the organisation will increase in proportion to the level of current market competition.

Essentially, a reduction in the number of competitors leads to a diminished emphasis on the demands for innovation, differentiation, design, and development, which could potentially stimulate growth. This notion is supported by the works of Liu and Atuahene-Gima (2018) and Henderson. Structural capital encompasses various functions and is commonly regarded as the organisational culture that optimises the decision-making processes and systems (Ramezan, 2011). In all its aspects, it symbolises the organization's intellectual assets, as defined by Kim, Kim, Park, Lee, and Jee (2012). These assets consist of technological components integrated with intellectual attributes, products, routines, knowledge, internal processes, and capabilities (e.g., Hejazi et al., 2016; Aramburu & Sáenz, 2011).

As a strategic asset, structural capital is comprised of non-human resources such as databases, information systems, routines, and procedures (Abualoush et al. 2018). It provides the necessary tools and architecture for the preservation, packaging, and transmission of knowledge across the entire value chain, thereby serving as the foundation and cohesive force of the organisation (Bejinaru, 2016). Moreover, Bontis defines Structural Capital as the link that permits the evaluation of intellectual capital at the organisational level. Structural capital refers to the foundational elements that enable organisations to exchange their human resources for financial gain and to facilitate the development and application of their expertise (Bayraktaroglu et al. 2019).

Organisational processes, information systems, organisational culture, internal organisational structure, and administrative systems all contribute to the development of effective structural capital (Tseng and Goo, 2005). Furthermore, it is structural in nature, organisations own it, and it is permissible to duplicate or distribute. In addition to establishing knowledge acquisition systems, structural capital facilitates the collection and integration of acquired knowledge Effective structural capital has the ability to foster a favourable environment that encourages the exchange of knowledge, the collective development of expertise, the reduction of lead times, and the production of productive individuals. Organisational knowledge comprises the complete repository of nonhuman knowledge within a company, including databases, policies, procedures, competitive formulas, and protocols. Khalique et al. (2011) cite Joshi et al. (2010), who defined structural capital as the firm-generated knowledge contained within the firm, whereas Hussinki et al. (2019) define it as the environment that encourages individuals to invest in their human capital in order to generate and leverage knowledge. Structural capital is defined by Tjahjadi et al. (2019) as

comprising the organisational structure and system. Sharabati (2020) explains that an organization's intellectual capital will be difficult to fully utilise if its structural capital is ineffectual. On the other hand, Ramezan (2011) contends that robust structural capital has the capacity to enable the organisation to fully utilise its intellectual capital.

In fact, structural capital has been identified by academicians as a crucial indicator of the profitability of a business. Sardo et al. (2018) and Cabrilo and Dahms (2018) demonstrated that structural capital is a crucial factor that influences the competitive position of a business in a variety of industries. Although there is general consensus regarding the influence of structural capital on the growth of an organisation (Scafarto et al. 2016; Khalique et al. 2015; Lu et al. 2014; Kamukama et al. 2010), certain scholars (Haris et al. 2019) contend that contradictions are to be anticipated due to the fact that the effect of structural capital on growth varies by industry and country. To substantiate this claim, Bayraktaroglu et al. (2019) noted that the impact of structural capital on growth can be altered by the presence of certain inter-firm differences.

2.5 Research Gaps

Table 2.1 Research Gaps

Author	Study	Findings	Missing Strategic Product Response
i.Stephen Kiiru & Kibe Wairimu, (2022)	Analysis of differentiation strategy on performance of business development service provision firms	Adoption of product development strategy and differentiation strategy affects the performance of the business development service provider firms	Product design response Product differentiation response Product innovation response
ii. Samuel Odongo & Micah Odhiambo, (2016)	The Major Growth Strategies Adopted by Small and Medium Enterprises in Kenya	Product development strategy, market penetration strategy, market development strategy are among other major growth strategies adopted by SMEs	Product design response Product differentiation response Product innovation response
iii. Kavale, Mugambi & Namusonge, (2017)	Strategic management determinants of corporate growth in selected microfinance institutions in Kenya	Grand strategy, differentiation strategy affects corporate growth	Product design response Product development response Product innovation response
iv. Kiveu, Namusonge & Muathe, (2019)	Effect of innovation on firm competitiveness: the case of manufacturing SMEs in Nairobi County, Kenya	Process, marketing innovation, organizational innovation and product innovation affects competitiveness.	Product design response Product development response Product differentiation response

2.6 Summary

This chapter covered the overview, introduce the concept of firm growth, concept of strategic product responses and firm growth, concepts of; strategic product design responses, strategic product development responses, strategic product differentiation responses, strategic product innovation and structural capital. Theoretical framework; the discrete choice theory of product differentiation, diffusion of innovation theory and the chasm theory of growth. A review of related literature on product design response, product development response, product differentiation response, product innovation response, structural capital and SMEs growth are presented. Lastly, the conceptual framework, research gaps and a summary were presented

2.7 Conceptual Framework

Independent Variables

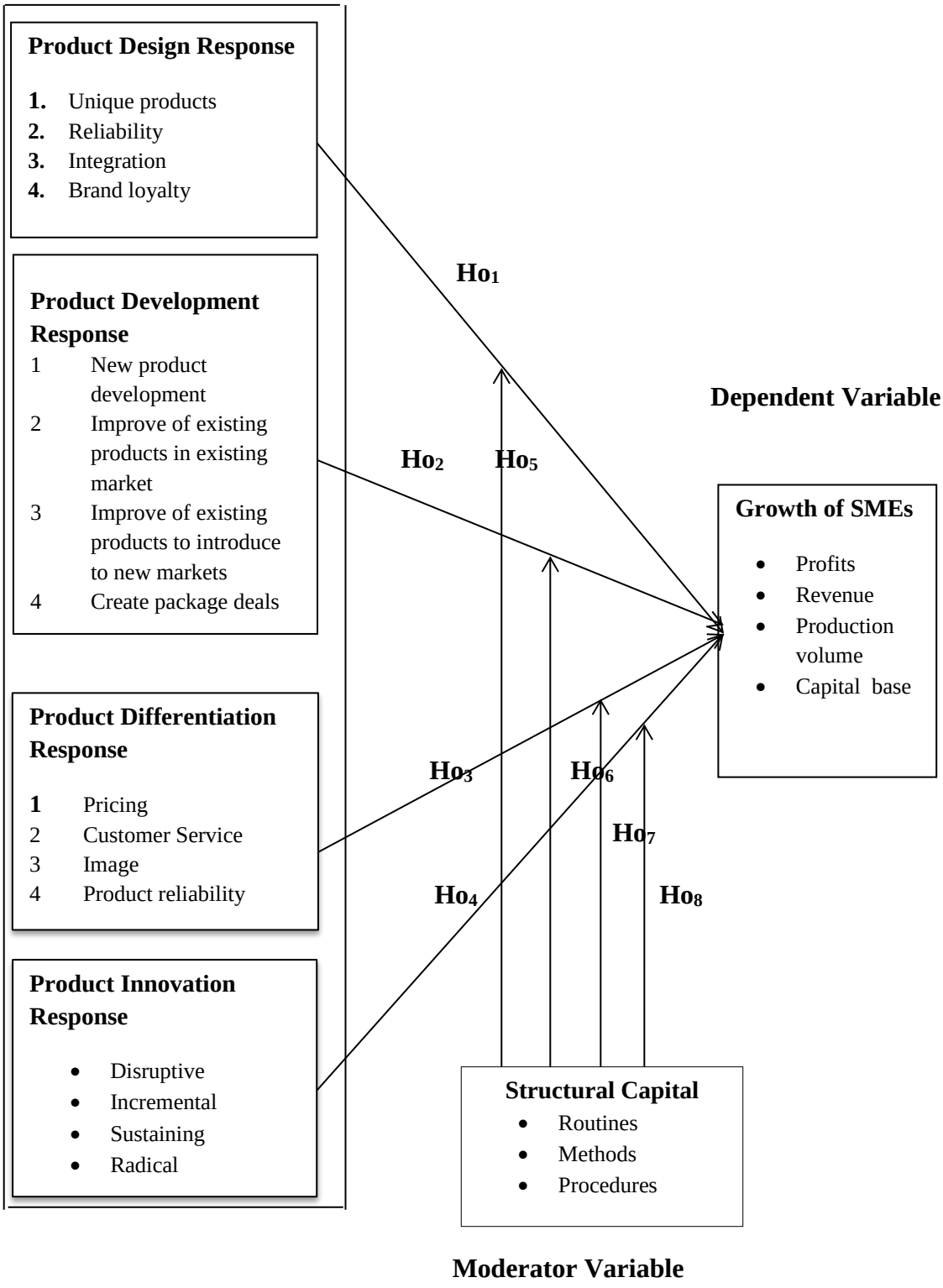

Figure 2.1: Conceptual Framework
Source: Researcher (2023)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provided an overview of the methodology that was utilised in the course of answering the study's predetermined objectives and hypotheses. Specifically, it encompasses the research design, study area, population targeted, sample size and sampling design, collection of data instruments and procedures, measurements of study variables, data analysis methodologies, and ethical considerations of the research.

3.2 Research Design

This study employed explanatory research design. The “why” questions is answered by explanatory design. In addition to this, it requires the formulation of an explanation for the existence of a causal relationship between the factors that are independent and the factors that are dependent Creswell (2013). According to Hair et al. (2006), explanatory design permits the use of inferential statistics in order to determine the nature of the connection that exists between both dependent and independent variables (Lebo, 2015). Explanatory research studies examine a cross-section of every population at a certain period in time and make it possible to acquire data from a larger number of respondents. It involves gathering data from a representative sample of the population and analysing that data to determine the underlying causal relationships connecting the factors that are independent and the factors that are dependent. Explanatory design was used to explain the relationship between strategic product responses, structural capital and growth of export manufacturing SMEs in Nairobi County.

3.3 Study Area

The research was conducted in Nairobi County, and it covered all of the micro, small, and medium businesses located in Nairobi County. As of December 2021, the county of Nairobi is inhabited to around 369 licenced small and medium-sized export manufacturing firms dispersed across the county (Nairobi County Council, 2021).

3.4 Target Population

The term "population" refers to any collection of the participants of an actual or hypothetical group of people, events, or objects in which a researcher seeks to generalise the outcomes of the research study. (Borg & Crall, 2009). This study targeted 369 top level managers of export manufacturing small and medium sized enterprises spread across Nairobi County. The SMEs of the various sectors targeted comprises of; Clothing/Accessories, Food Manufacturers, Furniture Masons, JuaKali Artifacts and Steel Products in Nairobi County as shown in Table 3.1.

Table 3.1: Target Population

Category	Target Population
Clothing/Accessories	172
Food Manufacturers	31
Furniture Masons	48
Jua Kali Artifacts	73
Steel Products	45
Total	369

Source: (Nairobi County Council, 2021)

3.5 Sampling Frame

The sampling frame can be thought of as the original source of material that is used when a sample is being drawn. People living in households or institutions could be included in this category. The researcher is provided with the information that he needs to utilise in order to identify the sample population through the use of the sampling frame (Cooper, & Schindler, 2011). The top level executives of export

manufacturing businesses in Nairobi County served as the study's sampling frame. The purpose of the study was to examine export manufacturing businesses in Kenya.

3.6 Sample Size and Sampling Design

This part covered the sample size, sample size determination and sampling design.

3.6.1 Sample Size determination

In most cases, sampling is done because the population that is going to be investigated is too huge to the point where it is not possible to investigate all of the objects that are of interest in the sample. In order to guarantee that a smaller number of participants is identified that would be considered representative as attainable, sampling is carried out.

The attributes of the sample ought to be presumed to reflect those of the population, and the sample needs to be objective or unaffected in order to be representative of the population. In the study, Slovin's formula for determining sample size was used to determine the size of the sample. It was decided that the threshold of acceptable error would be 5%, the standard deviation of the rating scale would be 0.5, and it was assumed that the alpha level a priori would be.05. The following is how we determined the appropriate size of the sample:

$$n = \frac{N}{(1 + N(e)^2)}$$

Whereas n=Sample size and N=target population e = error tolerance

n=? N=369 e=0.05

$$n = \frac{369}{(1 + 369(0.05)^2)} = 191$$

From the sample size of 191, proportions were calculated to arrive at the scores of each strata in the table below.

Table 3.2: Sample Size

Category	Target Population	Sample Size
Clothing/Accessories	172	89
Food Manufacturers	31	16
Furniture Masons	48	25
Jua Kali Artifacts	73	38
Steel Products	45	23
Total	369	191

Source: (Author, 2023)

3.6.2 Sampling Design

Mixed sampling methods was employed for this study. In the first instance, stratified random sampling method was used to stratify the sample size into five strata; Clothing/Accessories, Food Manufacturers, Furniture Masons, JuaKali Artifacts and Steel Products. This method was sufficient since the category of the export manufacturing SMEs was classified into strata form. Using random sampling method, the top level managers were selected from the emerging strata. From within each stratum, proportions were then calculated to select the respondents who finally participated in the study. Random sampling method was useful because it gave each item an equal chance of being picked.

3.6.3 Unit of Analysis and Unit of Observation

According to Creswell (2014), a unit of analysis is the item that you desire to say anything about at the end of your investigation. Because of this, it is also called the focus of your study. The small and medium-sized export manufacturing companies used as the unit of analysis for this study. When you are trying to learn more about your unit of analysis, the item (or items) you're attempting to observe, measure, or

gather is known as a unit of observation. The unit of observation in this study was the top level managers of export manufacturing SMEs.

3.7 Data Collection Instruments and Procedures

This study generated primary data to achieve its objectives.

3.7.1 Data Sources

For the purpose of this study, primary data was obtained. Primary data are data that have never been collected before by anybody other than the researcher who conducted the study. Because it is more up-to-date and relevant to the particular research subject at hand, primary data is the type of data that is most appropriate. (Creswell, 2013).

3.7.2 Data Collection Instruments

The goal of this study required the utilisation of primary data in order to be successful. A structured questionnaire based on a Likert scale with items from (5) Very Great Extent to (1) No Extent was used for collecting the primary data for this study. According to Saunders et al. (2009), the most practical sort of scale to use is a Likert-type scale because it rates the respondent's perception of the topic that is being researched. The questionnaire contained a set of closed-ended questions, each of which presented the respondent with a choice of one response from a pool of five different potential alternatives. The questionnaire was divided into two primary parts. The first part of the article focused on providing overarching information about the SMEs profile. However, the second section consisted of questions on particular details that was important for the objectives of the study. This section was further split into six sub-sections with questions regarding product design response, product development response, product differentiation response, product innovation response, structural capital, and export manufacturing SMEs growth.

3.7.3 Data Collection Procedures

Through the use of structured questionnaires, the research gathered both descriptive and qualitative data. The surveys had a research authorisation and a letter of support from Moi University attached to them so that they could be used for research. The researcher engaged and educated two (2) study assistants to help in the administration of questionnaires to the chosen participants of the export manufacturing SMEs. These individuals were given the responsibility of assisting the researcher in completing the research. The research assistants started by leaving the questionnaires, and then at a later agreed upon day throughout the week, they gathered up the questionnaires that had been filled out.

3.8 Pilot Study

A mock study is what is known as a pilot study, and it is performed in advance of the actual study for the sole goal of testing the data instruments. It helps discover and solve any flaws or deficiencies in the research tool, which in turn raises the likelihood that the primary study will be successful (Creswell, 2013). As advised by Mugenda and Mugenda (2003), a pilot research was conducted in Kiambu County with a sample size of 19 top-level managers of small and medium-sized enterprises (SMEs). These managers were randomly picked from the study population to make up 10% of the study sample.

3.8.1 Validity

The concept of validity refers to the process of ensuring that the findings and interpretations of a study are accurate. In the same a similar direction, it is considered the degree to which a study instrument measures what it claims to measure. In addition, validity is employed to generate predictions regarding the degree to which

the data in the study truly represent a particular construct (Mugenda and Mugenda, 2003). The face, content, and construct validity of the questionnaire were the primary areas of focus during the validity assessments. The researcher sought the advice of individuals who were considered to be experts in the profession of management and supervisors in order to guarantee that the questionnaire would have some credibility when presented to the public. A comprehensive assessment of both the theoretical and empirical literature that is regarded relevant to the collection of research variables used in this study will be conducted in order to achieve both the content and construct validity of the findings. This offers the basis for revising and modifying the research instrument, which ultimately contributes to the instrument's increased validity. Factor analysis using Total Variance Extracted and Rotated Complex Matrix will be used to test validity.

3.8.2 Reliability

According to Shanghverzy (2003), reliability is the trend towards internal consistent; as a consequence, various evaluations of the concept or similar measurements conducted continuously over time have the potential to provide the same results (Treiman, 2009). According to Anastasiadou (2006), the Cronbach Alpha index is the index that is considered to be the best appropriate for determining the internal consistency of a group of items. This index is attributed to the mean value of correlations that are obtained from the set of measurements that are utilised for investigating a study variable. When measuring a study variable, it is possible to boost reliability by including a large number of elements that are closely connected to one another. In the context of determining whether or not the standards developed for ideas in business are consistent, it is a practise that is frequently put into practise.

3.9 Data Processing, Analysis and Presentation

This part covered data processing, data analysis and data presentation.

3.9.1 Data Processing

Data processing refers to the transformation of data into a format that is both practical and in line with the intended purpose. This conversion or processing is executed utilising a predetermined series of operations, either by human or automatic techniques. The data acquired from the field was processed by coding, cleaning, summarising, and tabulating it. Afterwards, it was inputted into the computer for analysis utilising SPSS Version 23.0.

3.9.2 Data Analysis and Presentation

The collected data was carefully verified to reduce errors and identify any anomalies or issues arising from the questionnaire's implementation. The responses were encoded to facilitate accurate data entry and processing, as well as to enhance the researcher's ability to evaluate the outcomes of the analysis. Following the coding process, the data was properly inputted into the SPSS software utilising the supplied codes. Subsequently, a thorough examination was conducted to verify the accuracy, completeness, and consistency of the data. The collected research data was processed to derive measures of both descriptive and inferential statistics, namely correlation analysis. The descriptive statistics encompassed metrics such as frequency count, percentages, sample mean, and sample standard deviation. On the other hand, inferential statistics entailed the utilisation of bivariate correlation analysis and multiple linear regression analysis.

3.9.3 Correlation Analysis

Qualitative data was analysed using inferential statistics, employing both parametric tests. The objective was to determine whether there is a disparity in the averages of two independent samples. A Pearson correlation test was run to assess the level of significance among the independent factors and the dependent factor. Pearson's correlation coefficient, a metric for linear correlation, was utilised. The letter "r" represents the measure of correlation, ranging from -1 to +1. A value of 0 indicates no linear relationship. On the other hand, the coefficient of determination quantifies the proportion of variation in the dependent variable that can be explained by the independent variables. A higher Coefficient of determination indicates a stronger correlation between the regression line and the real data (Sekaran, 2000). In order to determine the adequacy of the regression analysis model and assess if the relationship between the variables is statistically significant, an ANOVA test was employed. To assess the adequacy of the model utilised the importance of the F ratio was utilised. The model is deemed appropriate when the F ratio is statistically significant, and conversely, it is regarded inappropriate when the F ratio is not significant (Weeks & Namusonge, 2016). A P value below 0.05 signifies a significant P statistic and warrants rejecting the null hypothesis of independence, as it is not valid.

3.9.4 Empirical Model

Regression is used to measure the causal relationship between a single independent variable and a single dependent variable. Numerous regression analysis is used to quantify the impact of numerous independent factors on a single dependent variable. The study employed a hierarchical multilinear regression model in multivariate analysis to examine the relationship between independent variables and the decision to grow small and medium-sized enterprises (SMEs). The objective was to ascertain

significant and substantial correlations between the data sets. The study employed hierarchical multiple regressions to assess the impact of several independent and moderating variables on the dependent variable, as well as the influence of multiple independent variables on the moderating variable (Okello et al., 2015). The study evaluated the impact of structural capital on the relationship between each dimension of Strategic Product Response and growth, employing the technique developed by Ken and Baron (Memon, et al 2019). The approach entails constructing a regression model with the independent variable X, the hypothesised moderator M, and the interaction term X*M as predictors in the model. The moderation model follows a specific statistical shape.

$$y = Bo + B_1X + B_2M + B_3X * M$$

The interpretation of the results is straight forward. Significant values of the regression coefficient of X indicates significant effect of the IV x. similarly, significant coefficient of the interaction term indicates significant moderation. This procedure and interpretation was used for testing the effect of each IV and the moderation effect of Structural Capital. We underscore that the B_1 coefficient in the model measures the significance of the direct effect of the strategic Product responses, B_2 the significance of Structural Capital and B_3 the moderation effect. Figure 3.1 shows the structural moderation model in this study.

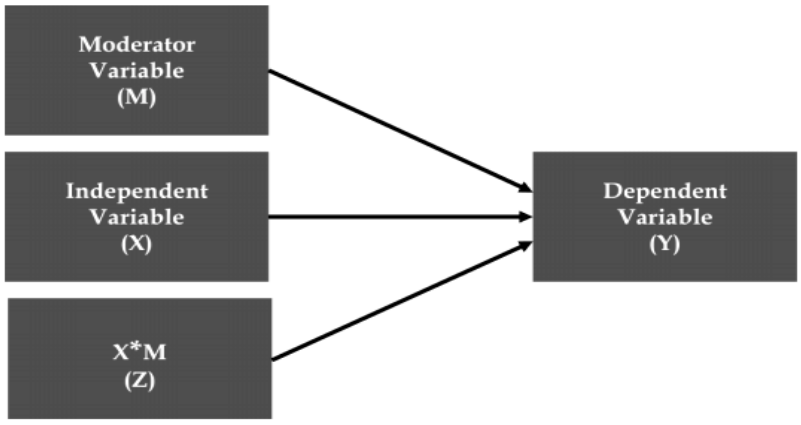

Figure 3.1: Structural Moderation Model
Source: Researcher (2023)

Each of the independent variables was interacted with structural capital, in order to compute hierarchical regression. The following was the equations:

$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + e$……..eqn 1

$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5M + e$…….……eqn 2

$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5M + B_6M * X_1 + e$……...…..eqn 3

$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5M + B_6M * X_1 + B_7\,M * X_2 +$

e……...eqn 4

$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5M + B_6M * X_1 + B_7\,M * X_2 + B_8\,M *$

$X_3 + e$……..……..…….eqn 5

$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5M + B_6M * X_1 + B_7\,M * X_2 + B_8\,M *$

$X_3 + B_9\,M * X_4 + e$…….eqn 6

Where:

Y = Growth of SMEs

B_0 = Constant Term

B_1, B_2, B_3, B_4, B_5, B_6, B_7, B_8 and B_9= Regression Coefficient of the Predictor Variables

X_1 = Product Design Response

X_2 = Product Development Response

X_3 = Product Differentiation Response

X_4 = Product Innovation Response

M = Structural Capital (Moderating Variable)

e = Error Term.

3.9.5 Conditions for Moderation

i. Both the dependent and independent variables must be quantified using a continuous scale.

ii. A moderator variable is required, which should be a nominal variable consisting of a minimum of two groups.

iii. The variables being studied (the dependent variable and the independent and moderator factors) should have a linear connection, which can be assessed using a scatterplot.

iv. The data should not exhibit multicollinearity (see to Multiple Regression). There must be no notable anomalies, and the parameters' distribution should be nearly Gaussian.

3.9.6 Testing for Regression Assumptions

The testing of the dependent parameter, independent parameters, and moderator variable was achievable by considering the assumptions of normality, linearity, homoscedasticity, autocorrelation, and multicollinearity in the regression model. Regression analysis relies on the assumption that variables follow a normal distribution. Variables that are not distributed according to the normal distribution and include significant outliers can misrepresent connections and significance tests.

A normality test was employed to ascertain the normal distribution of the datasets. According to the concept of normality, the test's distribution is characterised by a bell-shaped curve with a mean of 0 and a standard deviation of 1. This curve is symmetrical in shape (Saunders et al., 2015). The normality test was conducted via the Kolmogorov-Smirnov test. Rejecting the null hypothesis in a test with a significance level of $p<0.05$ indicates that the assumption of normality for the distribution is also rejected (Field, 2009). The data exhibited a normal distribution.

Linearity was assessed by generating a scatter plot using SPSS Statistics, in which the researcher plotted the dependent variable against the independent factors. The scatter plot was then visually examined to determine the presence of linearity. The scatter diagram reveals that the residuals are uniformly distributed around the zero line, which represents the regression line. The data can be inferred to have a linear distribution.

Multicollinearity was assessed by determining the inter-correlations among the independent variables. Multicollinearity arises when the independent variables exhibit a high degree of correlation with one another (Hair et al., 2013). The presence of multicollinearity was assessed using the VIF (Variance Inflation Factor) using statistical analysis. The presence of multicollinearity was assessed by examining the tolerance and Variance Inflation Factor (VIF), using a threshold of 0.1 for tolerance and a VIF of 10 (Hairr et al., 2013). All structures had a VIF (Variance Inflation Factor) value exceeding 0.1 but not surpassing 10. There was no issue with multicolinearity.

3.9.7 Hypothesis Testing

Testing the hypothesis is the process that is used to assess the strength of evidence from the sample, and it also provides a basis for making choices related to the population. Another way to say this is that it offers an apparatus for figuring out how accurately one can extrapolate the results observed in a sample under study to the larger population from which the sample was derived. The researcher came up with a certain hypothesis, analyzed the data from the sample, and then used those data to determine whether or not the particular hypothesis is supported by the data, as demonstrated in table 3.3.

Table 3.3 Hypotheses Testing

Objective	Null Hypothesis	Type of Analysis	Interpretation
i. To establish the effect of product design response on growth of export manufacturing small and medium enterprises in Nairobi County.	Ho_1: There is no significant effect of product design response on the growth of export manufacturing small and medium enterprises in Nairobi County.	Pearson Correlation Regression Analysis	If p-value < 0.05, Reject the null hypothesis.
ii. To determine the effect of product development response on growth of export manufacturing small and medium enterprises in Nairobi County.	Ho_2: There is no significant effect of product development response on the growth of export manufacturing small and medium enterprises in Nairobi County.	Pearson Correlation Regression Analysis	If p-value < 0.05, Reject the null hypothesis.
iii. To assess product differentiation response on growth of export manufacturing small and medium enterprises in Nairobi County.	Ho_3: There is no significant effect of product differentiation response on the growth of export manufacturing small and medium enterprises in Nairobi County.	Pearson Correlation Regression Analysis	If p-value < 0.05, Reject the null hypothesis.
iv. To establish the Product innovation response on growth of export manufacturing small and medium enterprises in Nairobi County.	Ho_4: There is no significant effect of product innovation response on growth of export manufacturing small and medium enterprises in Nairobi County.	Pearson Correlation Regression Analysis	If p-value < 0.05, Reject the null hypothesis.
v. To examine the moderating effect of structural capital on the relationship between product design response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.	Ho_5 : Structural capital has no significant moderating effect on the relationship between product design response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.	Pearson Correlation Regression Analysis	If p-value < 0.05, Reject the null hypothesis.
vi. To examine the moderating effect of structural capital on the relationship between product development response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.	Ho_6 : Structural capital has no significant moderating effect on the relationship between product development response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.	Pearson Correlation Regression Analysis	If p-value < 0.05, Reject the null hypothesis.
vii. To examine the moderating effect of structural capital on the relationship between product differentiation response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.	Ho_7 : Structural capital has no significant moderating effect on the relationship between product differentiation response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.	Pearson Correlation Regression Analysis	If p-value < 0.05, Reject the null hypothesis.
viii. To examine the moderating effect of structural capital on the relationship between product innovation response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.	Ho_8 : Structural capital has no significant moderating effect on the relationship between product innovation response and the growth of export manufacturing Small and Medium sized Enterprises (SMEs) in Nairobi County.	Pearson Correlation Regression Analysis	If p-value < 0.05, Reject the null hypothesis.

Table 3.4 Variable Description and Measurement

Variable	Items	Scale
Product Design Response	Unique products Reliability Integration Brand loyalty	Five-Likert Scale
Product Development Response	New product development Improve of existing products in existing market Improve of existing products to introduce to new markets Create package deals	Five-Likert Scale
Product Differentiation Response	Pricing Customer service Image Product reliability	Five-Likert Scale
Product Innovation Response	Disruptive Incremental Sustaining Radical	Five-Likert Scale
Structural Capital	Routines Methods Procedures Profits	Five-Likert Scale
Growth of SMEs	Revenue Production volume Capital base	Five-Likert Scale

3.10 Ethical Considerations

The respondents were provided with comprehensive information regarding the nature and goal of this research, as well as the techniques that will be used and the anticipated advantages to both the participants and the SMEs industry. The respondents were given the opportunity to ask questions and obtain any necessary clarifications during the discussion. The consent of the respondent to take part in this study was gained in a completely voluntary manner. The information that was acquired from the respondents was kept secret, and it was only intended to be utilized for the purpose of this study. Because the respondents' identities were not written down, we were able to ensure their anonymity and confidentiality. Due to the

involvement of members of the general public in the data collection process, a study authorization from NACOSTI and an introduction letter from Moi University were both included with the questionnaires.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The chapter presents the data analysis results to assess the moderation effect of Structural Capital on the relation between strategic product responses and growth of export manufacturing SMEs. The response rate, factor analysis and reliability analysis forms the data initial assessment of the quality of the data. The correlation analysis and the regression analysis to test the hypotheses forms the remaining section.

4.2 Response Rate

A total of 191 questionnaires were sent for data collection. But 163 of them were returned and found suitable for use. This translates to 85 percent response rate. A high response rate is important in ensuring that the data collected adequately represented the information of the entire population from which the data is drawn (Kothari, 2014). Therefore, it was evident the sample finally used was a representative of the intended sample. Credibility of research is anchored on the representative of the sample.

Table 4.1 Response Rate

		Count	N %
How long has your SME been in operation	0-5 years	21	13%
	5-10 years	47	29%
	ov 10 years	95	58%
How long have you worked at the SME	0-5 years	11	7%
	5-10 years	49	30%
	Over 10 years	103	63%

Source: Research Data (2023)

The results in Table 4.1 shows that most of the SMEs in export had been in existence for more than 10 years. However, 13 percent of the SMEs had were newly formed with less than 5 years in existence. The majority of the sampled employees had been

working in their respective firms for relatively long period of over ten years indicating high employee retention rate. The benefits of employee retention are many including human capital.

4.3 Validity and Reliability Test

This section tested both validity and reliability of the research instruments.

4.3.1 Validity Test

Exploratory Factor Analysis (EFA) is one technique to determine the structure of data set. The data from the export manufacturing SMEs was subjected to an EFA phase to assess the structure of the data. The KMO and the bartlet test showed the data was suitable for FA. The KMO was greater than 0.8 and the Bartlett's Test of Sphericity was significant ($p<0.05$) an indication that the data set is suitable to be subjected to FA. This further suggests that data is adequate to separate out into distinct structures. Because of this necessary conclusion, factor analysis was carried out. The results were reported in table 4.2 below.

Table 4.2 KMO and Bartlett's Test Results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.858
Bartlett's Test of Sphericity	Approx. Chi-Square	2075.555
	Df	276
	Sig.	.000

Source: Research Data (2023)

Results in below Table 4.3 shows that a six structure was supported by the data set. The six factors accounted for 69.273% of variance in the original dataset of which factor one contribute the highest variance of 16.070%. It is followed by factor two with 14.097%, factor three with 13.045%, factor four with 11.492% and factor five with only 7.334% of variance. Only a factor with an Eigen values greater than 1 were extracted.

The total variance explained by the extracted factors results also shows the proportion each extracted components contributed to the total variance. The first component explained most variance (33.17%) and component five the contributed only 4.59% of variance in the original data. As seen in Table 4.3 the five distinct factors extracted explained a total of 65.2% of variance in the original data.

Table 4.3: Factor Analysis; Total Variance Extracted

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.961	33.172	33.172	7.961	33.172	33.172	3.857	16.070	16.070
2	3.573	14.887	48.059	3.573	14.887	48.059	3.383	14.097	30.167
3	1.619	6.746	54.805	1.619	6.746	54.805	3.131	13.045	43.212
4	1.397	5.821	60.626	1.397	5.821	60.626	2.758	11.492	54.704
5	1.101	4.588	65.214	1.101	4.588	65.214	1.760	7.334	62.038
6	.974	4.059	69.273	.974	4.059	69.273	1.736	7.235	69.273
7	.773	3.220	72.492						
8	.674	2.807	75.299						
9	.629	2.619	77.918						
10	.579	2.413	80.331						
11	.549	2.290	82.620						
12	.510	2.126	84.746						
13	.460	1.919	86.665						
14	.399	1.663	88.327						
15	.397	1.655	89.983						
16	.360	1.498	91.481						
17	.335	1.394	92.875						
18	.323	1.346	94.221						
19	.303	1.262	95.482						
20	.262	1.093	96.576						
21	.249	1.037	97.613						
22	.234	.977	98.590						
23	.209	.872	99.462						
24	.129	.538	100.000						

Extraction Method: Principal Component Analysis.

Source: Research Data (2023)

In validity assessment using FA, the rotated component matrix result is shown in Table 4.4 is one of the most important results to this effect. It shows the items in each construct and the factor loading of each item to its construct. The factor loading shows the strength of correlation an item has to the construct. High values shows how

good an item fits the construct. Values greater than 0.5 are acceptable. The validity results of the rotated component (Table 4.4) shows that factors meant to measure a given construct distinctively grouped together an indication that items in each construct measured a different construct from items in another construct. This is a clear indication of construct validity. The 24 items are showed in the structure. Items in each construct are used to construct a variable representing the construct for further analysis. Six factor structure, representing product design, product development, product differentiation, product innovation, structural capital and SMEs growth, were constructed by computing their average and saved as new variables in the original data set for further analysis, including correlation and regression.

The first extracted component structure was dominated by product design items and component two was dominated by product differentiation items. SME growth items dominated component three. The fourth component was dominated by structural capital. One important application of the results of component matrix is in scale development. Items in the same component are averaged to represent the component. Again only items with strong loading greater than 0.5 were retained to enhance construct reliability. The lowest loading was 0.59 in component 5.

Table 4.4 Factor Analysis; Rotated Component Matrix

	Component					
	1	2	3	4	5	6
Product Design	.777					
Product Design	.743					
Product Design	.676					
Product Design	.654					
Product Differentiation		.760				
Product Differentiation		.741				
Product Differentiation		.735				
Product Differentiation		.601				
SME Growth			.794			
SME Growth			.762			
SME Growth			.729			
SME Growth			.718			
Structural Capital				.783		
Structural Capital				.753		
Structural Capital				.683		
Structural Capital				.669		
Product Innovation					.572	
Product Innovation					.703	
Product Innovation					.559	
Product Innovation					.525	
Product Development						.702
Product Development						.700
Product Development						..698
Product Development						.523

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 9 iterations.
Source: Research Data (2023)

4.3.2 Reliability Test

The results of the factor analysis are also utilized to evaluate the dependability of the constructs that were extracted. One of the tests that can be used to determine whether or not a survey instrument has reliable internal consistency is the Cronbach's alpha test. The results of doing the Cronbach test on each individual construct are shown in Table 4.5, which may be found below. Cronbach's alpha coefficients for product design, product development, product differentiation, product innovation, structural capital, and SME growth were all above 0.7, which indicates that they are reliable. These results are presented in Table 4.5. According to Taber (2018), the Cronbach's

alpha values of the items that are a part of the study should not go below the threshold of 0.7. Cronbach alpha should be greater than 0.7, as recommended by Gliem & Gliem (2003), although Golafshani (2003) states that it should not be lower than 0.7. Because of this, we may say that the study's factors can be relied upon.

Table 4.5 Cronbach Alpha Test of internal consistency

Scale	Number of items	Alpha	Consistency
Product Design	4	.773	Reliable
product Development	4	.701	Reliable
Product Innovation	4	.814	Reliable
product Differentiation	4	.769	Reliable
Structural Capital	4	.837	Reliable
SME Growth	4	.756	Reliable

Source: Research Data (2023)

4.4 Descriptive Results

This section reported on the descriptive results of product design response, product development response, product differentiation response, product innovation response, structural capital and SME growth measured on a five scale of No Extent(1), Small Extent(2), Moderate Extent (3), Great Extent (4) and Very Great Extent (5) were computed and presented in the table as below. The mean and standard deviation are generated using the five-point Likert Scale.

4.4.1 Product Design Response

The primary aim of the analysis was to assess the effect of product design response on the growth of export manufacturing SMEs in Nairobi County.

Table 4.6 Product Design Response

	Mean	Std. Deviation
we have unique products in the market	4.67	.641
We have more reliable products in the market	4.25	.725
Our products are highly integrated	3.73	.813
We have a strong emphasis of product brand loyalty	4.36	.776
Product Design Response Overall Mean	4.2525	

Source: Research Data (2023)

The export manufacturing SMEs use product design response and the extent of use was assessed using four items on a scale of 1 to 5. The Mean of the items was used to evaluate the extent each item was used. On whether the small and medium sized enterprises in Nairobi county have unique product market, the mean is 4.67, with a standard deviation of 0.64 indicating they have unique product to a great extent. On whether the small and medium sized enterprises in Nairobi county have more reliable products in the market, the mean is 4.25, with a standard deviation of 0.725 indicating great extent. The results showed that the firms reported to have a strong emphasis on product brand at a mean of 4.36. However, the mean for whether the product is highly integrated the was reported at lowest of 3.73 indicating that product integration was least popular product design practice therefore contributing the least to the growth of the SMEs. On average, the respondents agreed to a great extent (overall mean 4.2525) that product design affects the growth of export manufacturing SMEs in Nairobi County. Firms that make their products unique and different from their competitors enhance their growth (Kiptugen, 2003).

4.4.2 Product Development Response

The primary aim of the analysis was to assess the effect of product development response on the growth of export manufacturing SMEs in Nairobi County.

Table 4.7 Product Development Response

	Mean	Std. Deviation
We do create package deals for our customers	3.77	.690
We always engage in new product development	3.90	.851
We improve of existing products to introduce to new markets	3.99	.793
We improve of existing products in existing market.	4.01	.861
Product Development Response Overall Mean	3.9175	

Source: Research Data (2023)

The extent export manufacturing SMEs use product development response was assessed and the results presented in table 4.7. On whether the SMEs in Nairobi

county always engage in new product development, the mean of 3.90, with a standard deviation of .851 was reported. The mean on whether the SMEs improve of existing products to introduce to new market was 3.99, with a standard deviation of .793 indicating the practice is common in most SMEs. It was noted that, on product development, most SMEs improve of existing products in existing market at a highest mean of 4.01 standard deviation .861. On average, the mean values (overall mean 3.9175) indicate that product development is common strategy among the export manufacturing SMEs in Nairobi. Therefore, to a moderate extent product development affects the growth of export manufacturing SMEs in Nairobi County. Product development helps in attaining competitive advantage in the business industry in Kenya hence growth (Kabara, 2020).

4.4.3 Product Differentiation Response

The primary aim of the analysis was to assess the effect of product differentiation response on the growth of export manufacturing SMEs in Nairobi County.

Table 4.8 Product Differentiation Response

	Mean	Std. Deviation
We offer good products and friendly pricing	3.68	.670
We deliver superior customer service	3.76	.695
we have a strong brand Image	3..88	.763
We offer reliable products	3.94	.804
Product Differentiation Response Overall Mean	3.815	

Source: Research Data (2023)

The analysis on extent the export manufacturing SMEs use product differentiation response was assessed and the results are presented in Table 4.8. On whether the SMEs in Nairobi county deliver superior customer service, a mean of 3.76, with a standard deviation of .695 was reported. On whether the SMEs offer good products and friendly pricing reported the least mean of 3.68 with a standard deviation of .670. Also, on whether the SMEs believe that they have a strong brand image, a mean of

3.88, and a standard deviation of .763 was reported indicating the believe is common in most SMEs. Most of the SMEs reported a high score for believing that they offer reliable product in the market at a highest mean of 3.94 and a standard deviation of .804. On average, the respondents agreed to a moderate extent (overall mean 3.815) that product differentiation affects the growth of export manufacturing SMEs in Nairobi County. Firms that make their products unique and different from their competitors enhance their growth (Kiptugen, 2003). Overall, the results suggested that SMEs use product differentiation of services and products to large extent.

4.4.4 Product Innovation Response

The primary aim of the analysis was to assess the effect of product innovation response on the growth of export manufacturing SMEs in Nairobi County.

Table 4.9 Product Innovation Response

	Mean	Standard deviation
We do creation of brand new products	4.50	.812
We create products that perform better and are of higher quality	4.11	.839
We address transformation issues within the SME	3.91	.816
We do application of new technologies, processes in creation of good enough products to the existing SME industry.	3.78	.919
Product Innovation Response Overall Mean	4.075	

Source: Research Data (2023)

The extent of export manufacturing SMEs innovate their products and services to win customers was also assessed and the results presented in above table 4.9. On whether the SMEs in Nairobi county believe they create a brand new products for the customers, mean of 4.50, with a standard deviation of .812 was reported indicating they have brand new products to a great extent. On whether the small and medium sized enterprises in Nairobi county do create products that perform better and are of higher quality, reported the highest mean of 4.11, with a standard deviation of .839

indicating great extent. The results showed that, with the address of transformation issues within the SME, reported a mean of 3.91 with a standard deviation of .816. However, the mean for we do application of new technologies, processes in the creation of good enough products to the existing SME reported the lowest mean of 3.78 with a standard deviation of .191 indicating that it was the least popular product. On average, the respondents agreed to a great extent (overall mean 4.075) that product innovation affects the growth of export manufacturing SMEs in Nairobi County. Technologies allow organizations to develop a better relationship with customers by providing a wider view of their behavior and enhance firm growth (Thompson, 2006).

4.4.5 Structural Capital

The primary aim of the analysis was to establish the effect of structural capital on the growth of export manufacturing SMEs in Nairobi County.

Table 4.10 Structural Capital and strategic product responses

	Mean	Std. Deviation
Strong routines that help it achieve its objectives	4.43	.950
processes and information are available that help firm use its knowledge to achieve its objective	4.37	.828
Strong procedures followed to achieve best results	3.88	.884
tools are available that help firm achieve firm objective	3.76	.817
Structural Capital Overall Mean	4.11	

Source: Research Data (2023)

The extent the firms have supportive infrastructure that enables the rest of an organization to function well was also assessed and the results presented in above table 4.10. Regarding routines, the results showed that the firms have a strong routines within the organization. The the highest mean of 4.43 and standard deviation of .950. Regarding process, the mean of 4.37 with a standard deviation of .828 was obtained. However, the results showed that availability of tools that help attain firm objectives was least with a mean of 3.76 and standard deviation 0.817. The standard deviation

represent the variation of responses from the mean. On average, the respondents agreed to a great extent (overall mean 4.11) that structural capital affects the growth of export manufacturing SMEs in Nairobi County. Intellectual capital is a key to business growth thereby promoting economic growth (Faris, Noriah & Zaimah, 2021).

4.4.6 Growth of Export Manufacturing SMEs

In this part, performance of export manufacturing SMEs was measured using profits, revenue, production volume and capital base.

Table 4.11 Growth of Export Manufacturing SMEs

	Mean	Std. D
Strategic product responses enhances SMEs profits	4.40	1.092
Strategic product responses results in revenue in the SMEs	3.87	.766
Strategic product responses promotes production volume in the SMEs	3.82	.841
Strategic product responses increases capital base in the SMEs	3.71	.751
Growth Overall Mean	3.95	

Source: Research Data (2023)

The growth of SMEs was assessed on the on a scale of 1 to 5 and the results presented in above table 4.11. The respondents felt that strategic product response enhance profit with the highest mean of 4.40 and a standard deviation of 1.092. Similarly, most respondents felt that the strategic product responses is instrumental on increasing firm revenues (mean=3.87, SD=.765). The strategic product responses promote production volumes (mean=3.82, SD=.841). Finally it was noted that strategic product responses increased the capital base with (mean=3.71, SD=.751). On average, the respondents agreed to a moderate extent (overall mean 3.95) that strategic product responses affects the growth of export manufacturing SMEs in Nairobi County. Firms realize positive profits as a result of which they grow and survive suggesting that profitability of firms reflect the degree of fitness and accordingly envisage that profitable firms will grow. (Alchian,1950).

4.5 Correlation Analysis

The nature and strength of association between the variables in business is important information in decision making in virtually every fields such as export enterprises. Correlation results between strategic product response and SME growth is shown in Table 4.12 The strategic product responses have a positive correlation with growth. This indicates that export firms with effective increase in their strategic product responses and structural capital will result in increase in their growth. . On the other hand, the export SMEs characterized by inefficiency in strategic product responses and structural capital are likely to record negative growth.

Table 4.12 Correlation Results

		Product Design	Product Development	Product Differentiation	Product Innovation	Structural Capital	SME Growth
Product Design	Coefficient	1					
	Sig.						
Product Development	Coefficient	.543**	1				
	Sig.	.000					
Product Differentiation	Coefficient	.426**	.477**	1			
	Sig.	.000	.000				
Product Innovation	Coefficient	.357**	.508**	.307**	1		
	Sig.	.000	.000	.000			
Structural Capital	Coefficient	.383**	.510**	.587**	.470**	1	
	Sig.	.000	.000	.000	.000		
SME Growth	Coefficient	.383**	.275**	.277**	.276**	.476**	1
	Sig.	.000	.000	.000	.000		

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

b. Listwise N=163

Source: Research Data (2023)

4.6 Regression Analysis

The effect of each of these factors on the growth of export manufacturing SMEs was assessed through regression analysis. This analysis was run in two sections. Model summary and ANOVA. Then regression test and results. However, prior to running a regression analysis. The regression assumptions were first tested.

4.6.1 Regression Analysis Assumptions

The assumptions of normality was assessed using the histogram shown in figure 4.1. It is has a shape of a normal distribution thus concluding that the normality assumption is met.

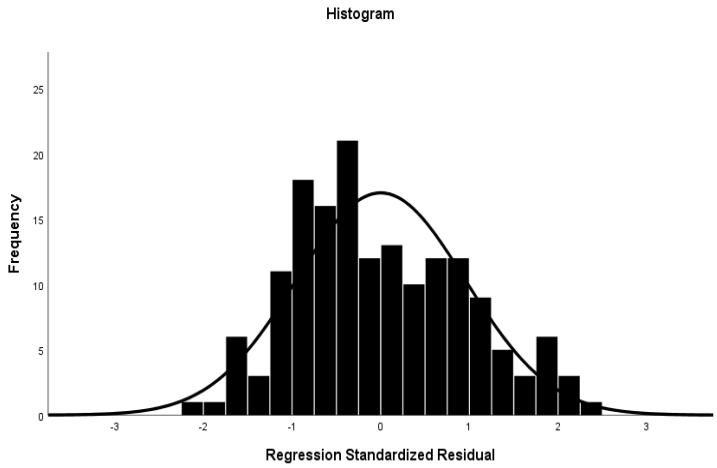

Figure 4.1 Normality test: Plot of the Residuals

The assumption of linearity states that in order for the model to be valid, it is necessary for the relation that exists between the model's independent variables and the variable that is being studied to be linear. In order to illustrate the linearity, the residuals ought to have a distribution that is even both below and above the regression line. Additionally, it is presumed that the errors remain the same across the entire range of values for the dependent variable. For the purpose of verifying this assumption, a plot of the regression residuals against the expected values is utilized. In order for the assumption to be validated, the mistakes must not demonstrate any sort of fanning out trend. The data followed a linear distribution, as illustrated in the figure 4.2 that can be found below.

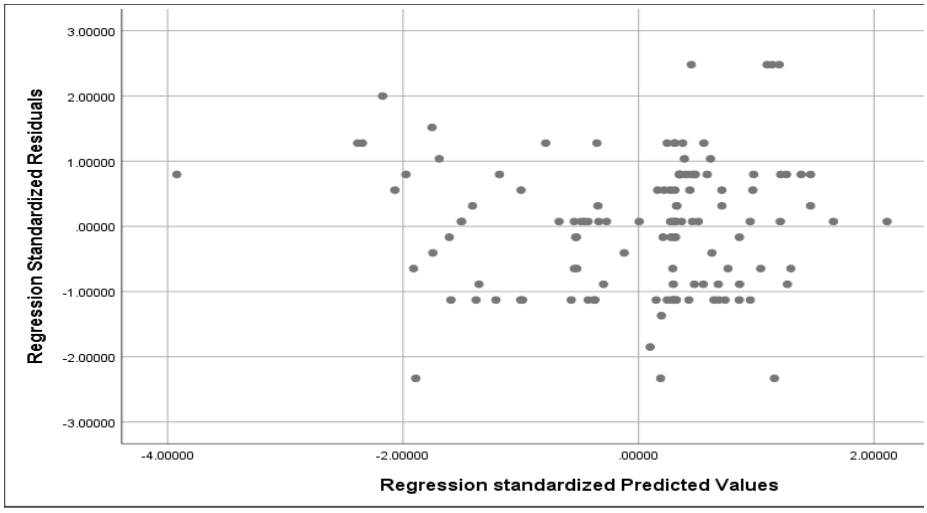

Figure 4.2 Linearity test: Distribution of the Residuals

The second hypothesis is that the variables used in the regression analysis should not have a strong correlation with one another. Because no two independent variables (IVs) are substantially associated with one another (rho > 0.7), the results of the variance inflation factor test demonstrate that the data does not have any multicolinearity problems. In addition, the Variance Inflation Factor, abbreviated as VIF, was calculated for each variable in order to check for multicolinearity. Values of the VIF that are lower than 10 are taken to be an indication that there is no significant multicolinearity. Since this is the case, the assumptions have been satisfied, and the data may now be analysed using linear regression. The multicollinearity is shown in the table below.

Table 4.13 Multicollinearity Diagnostics; VIF

		Tolerance	VIF
	Product Design	.703	1.422
	product development	.530	1.885
	product differentiation	.478	2.093
	Product Innovation	.447	2.235
	Structural Capital	.490	2.040

Source: Research Data (2023)

4.6.2 Model Summary and ANOVA

The model summary results are presented in Table 4.14

Table 4.14: Model Summary

Model Summary

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	.549[a]	.301	.279	.545	.301	13.527	5	157	.000
2	.603[b]	.363	.326	.527	.062	3.737	4	153	.006

Source: Research Data (2023)

The model summary results shows that R square of the main effect model (model 1) was .301 indicating that the strategic product responses accounts for 30.1% of SME growth variations. The F value of model 1 is significant (F=13.527, p=.000) indicating that the model and the data are compatible. On the other hand, the model2 R square increased to .363 indicating that the inclusion of interaction term increased the growth variance from the 30.6% to 36.3%. A significant F ration was obtained (F=9.700, p=.000). The change statistics shows that they are significant indicating that significant moderation was evident. $\Delta R2=.062$, $\Delta F=3.737$, p=.006.

The results presented in the above table 4.14 indicate that product design, product development, product differentiation and product innovation are adequate variables in explaining growth. This is supported by the coefficient of determination also known as the R square in the main effect model (model 1) of .301 indicating that product design, product development, product differentiation and product innovation accounts for 30.1% of variations. On the other hand, the model2 R square increased to .363 indicating that the inclusion of interaction term increased the growth variance from the 30.1% to 36.3%. This means that product design, product development, product differentiation and product innovation explain 30.1% of the variations in the growth (dependent variable) of export manufacturing SMEs in Nairobi county. The study

results concur with (Gherardini, Renzi & Leali, (2017), who indicated that firms associated with strong product design better realize performance outcomes hence growth. John Stark (2022) revealed that firms associated with product management throughout the product lifecycle makes good money for the company therefore resulting to growth. Adebisi, Sunday & Nimota (2019), who indicated that SMEs that adopt product differentiation attain better performance and sustainability hence growth. Serguey. Atsushi, Okazaki & Chad (2021), who revealed that firms that try to introduce innovative products beyond the firm's previous technologically feasible set, even if such trials fail, is a key to firm growth.

Table 4.15: ANOVA

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.060	5	4.012	13.527	.000[b]
	Residual	46.565	157	.297		
	Total	66.626	162			
2	Regression	24.205	9	2.689	9.700	.000[c]
	Residual	42.421	153	.277		
	Total	66.626	162			

Source: Research Data (2023)

The findings presented above show that the entire model has a substantial on statistics impact. Based on the findings, product design, product development, product differentiation, and product innovation are all strong growth predictors. The F statistic turned in at 13.527, which lends validity to this assertion. Additionally, the reported p-value was 0.000, which is lower than the traditionally accepted significance level of 0.05. In model 2 (moderated), a significant F ration was obtained (F=9.700, p=.000). The change statistics shows that they are significant indicating that significant moderation was evident. ΔR^2=.062, ΔF=3.737, p=.006

4.7 Regression Coefficient Results

The first model in a moderated model is to assess the main effect model. In this study it tests the hypothesis H_{01a}, H_{02a}, H_{03a} and H_{04a}. The model two is used to interpret whether interaction (moderation) is significant to test the b hypothesis. The results are shown in below table 4.16.

Table 4.16: Regression Coefficients

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.509	.135		3.763	.000
	product design	.496	.060	.560	8.202	.000
	product development	.559	.068	.565	8.248	.000
	product differentiation	.388	.068	.442	5.683	.000
	Product Innovation	.480	.086	.426	5.579	.000
	Structural capital	.248	.060	.560	4.101	.000
2	(Constant)	.399	.178		2.233	.027
	product design	.272	.084	.248	3.249	.001
	product development	.201	.062	.288	3.214	.002
	product differentiation	-.088	.070	-.112	-1.255	.212
	Product Innovation	.083	.065	.108	1.271	.206
	Pdt design S.Capital	.123	.064	.149	1.928	.056
	Product_dev. X Structural Capital	.052	.091	-.042	-.576	.566
	P. differentiation X S Capital	.126	.081	.131	1.559	.121
	Innovation X S Capital	.272	.084	.248	3.249	.001

Source: Research Data (2023)

Based on the study results, the regression main effect model specification was;

GROWTH = 0.509+ 0.560Product design response+ 0.565Product development response+ 0.442product differentiation response+ 0.426product innovation response

The moderating effect of the structural capital was analyzed and guided by the following derived model;

$$y = Bo + B_1X + B_2M + B_3X * M$$

Where:

Y = Growth of SMEs

B_0 = Constant Term

B_1, B_2, B_3, B_4, B_5, B_6, B_7, B_8 and B_9= Regression Coefficient of the Predictor Variables

X_1 = Product Design Response

X_2 = Product Development Response

X_3 = Product Differentiation Response

X_4 = Product Innovation Response

M = Structural Capital (Moderating Variable)

M*X =Interaction Term

e = Error Term.

The research hypothesized that Product design has a positive effect on growth of SMEs and this relationship is enhanced by structural capital of the SME. The regression coefficient for the product design is significant (β=.560, p=.000) indicating that product design has positive effect on growth thus the hypothesis H01a is rejected. The interaction term of product design X S_capital (β=.123, p=.056) in model 2 is significant suggesting that structural capital significantly moderates the positive relation between product design and growth of SMEs. The hypothesis H01b is thus rejected in favour of its alternative.

The research also hypothesized that Product development has a positive effect on growth of SMEs and this relationship is enhanced by structural capital of the SME. The regression coefficient for the product development is significant (β=.565, p=.000) indicating that product development has positive effect on growth of SMEs thus the

hypothesis H02a is rejected. The interaction term, pdt development X s-capital (β=.052, p=.001) in model 2 is significant suggesting that structural capital significantly moderate the positive relation between product development and growth of SMEs. The hypothesis H02b is thus rejected in favour of its alternative. The moderation results suggest that SME firms with strong structural capital outperform their counterpanes of equal product development abilities. Thus underpinning the importance structural capital in growth of SMEs.

The research also hypothesized that Product differentiation has a positive effect on growth of SMEs and this relationship is enhanced by structural capital of the SME. The regression coefficient for the product differentiation is significant (β=.442 p=.000) indicating that product differentiation has positive effect on growth of SMEs, The hypothesis H03a is thus rejected. However, the interaction term is not significant (β=.126, p>.05) suggesting that the structural capital does not significantly moderate the positive relation between product differentiation and growth of SMEs. This study therefore failed to reject H_{03b} in favour of its alternative.

The research also hypothesized that product innovation has a positive effect on growth of SMEs and this relationship is enhanced by structural capital of the SME. Tahe regression coefficient for the product innovation is significant (β=.426. p=.000) indicating that product innovation has positive effect on growth of SMEs thus H04a was rejected. The interaction term, that is innovation X S-capital, is significant (β=.272. p=.001) indicating that structural capital significantly moderates the positive relation between product innovation and growth of SMEs. The hypothesis H04b is thus rejected in favour of its alternative.

Table 4.17: Summary of Hypothesis Testing Results

Hypothesis	Statistics	Verdict
Product design has no significant effect on the growth of export manufacturing SMEs in Nairobi County	Regression coefficient β =.560 p=.0.000	Reject H_{O1a}
Product development has no significant effect on the growth of export manufacturing SMEs in Nairobi County	Regression coefficient β =.565 p=.000	Reject H_{O2a}
Product differentiation has no significant effect on the growth of export manufacturing SMEs in Nairobi County	Regression coefficient β =.442 p=.000	Reject H_{O3a}
Product innovation has no significant effect on the growth of export manufacturing SMEs in Nairobi County	Regression coefficient β =.426 p=.0.000	Reject H_{O4a}
Structural capital has no significant moderating effect on product design and growth of export manufacturing SMEs in Nairobi County	Significant interaction term β =.123, p=.056	Reject H_{O1b}
Structural capital has no significant moderating effect on product development and growth of export manufacturing SMEs in Nairobi County	Significant interaction term β =.052, p=.001	Reject H_{O2b}
Structural capital has no significant moderating effect on product differentiation and growth of export manufacturing SMEs in Nairobi County	Significant interaction term β =.126, p>.05	Not Reject H_{O3b}
Structural capital has no significant moderating effect on product innovation and growth of export manufacturing SMEs in Nairobi County	Significant interaction term β =.272, p=.0.001	Reject H_{O4b}

4.8 Discussion of Key Findings

The study was out to find the moderating effect of structural capital on the relation between product design and the growth of export manufacturing SMEs in Nairobi County. The study found out that product design has a positive and significant effect on growth of SMEs and this relationship is positively and significantly enhanced by structural capital of the SME. Firms associated with strong product design better realize performance outcomes (Gherardini, F., Renzi, C., & Leali, F. (2017).

The study was out to find the moderating effect of structural capital on the relation between product development and the growth of export manufacturing SMEs in Nairobi County. Product development response is concerned with the aspects such as evolution and devolution of new products and it aids the organization in increasing its market share and enhance better performance outcomes. The study findings indicate that product development has a positive and significant effect on growth of SMEs. The relationship is positively and significantly enhanced by structural capital of the SME. SMEs associated with strong product development vision and implementation plan better realize performance outcomes (Rodríguez-Ferradas, M. I., & Alfaro-Tanco, J. A. 2016).

The study was out to find the moderating effect of structural capital on the relation between product differentiation and the growth of export manufacturing SMEs in Nairobi County. Product differentiation response is concerned with distinguishing a product or service from others to make it more attractive to a particular target market and it aids the organization in reducing competition and makes it possible to reach new segments of the market hence enhance better performance outcomes. The findings indicate that product differentiation has a positive and significant effect on growth of SMEs. However the relationship is positively and insignificantly enhanced by structural capital of the SME. Grand strategy and differentiated strategy among other factors have positive impact on SMEs growth (Kavale, Namusonge & Mugambi, 2016).

The study was out to find the moderating effect of structural capital on the relation between product innovation and the growth of export manufacturing SMEs in Nairobi County. Product innovation response is concerned with the development of new

products, changes in design of established products, or use of new materials or components in the manufacture of established products. It aids the organization expansion, gaining a competitive advantage and enhances better performance outcomes like growth. Findings indicate that product innovation has a positive and significant effect on growth of SMEs and this relationship is positively and significantly enhanced by structural capital of the SME. Product innovation is crucial for sustainable long-term economic growth of an organization (Maier Dorin 2018).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMENDATIONS

5.0 Introduction

This chapter presents the summary of findings on the moderation effect of structural capital on the relationship between strategic product responses and the growth of export manufacturing SMEs, conclusions and recommendations of the study.

5.1 Summary of Findings

The study investigated the moderating effect of structural capital on the relation between strategic product responses and the growth of export manufacturing SMEs in Nairobi County. The primary concern of the study is whether structural capital moderates the influence of strategic product responses on growth of export manufacturing SMEs in Nairobi County.

5.1.1 Product Design Response

The study found out that the positive and significant effect of product design on growth is positively and significantly moderated by structural capital. In other words, it was evident from the moderation results that structural capital ability of export manufacturing SMEs enabled them achieves over and above firm growth than what they achieve with only product design abilities. Product design has a positive and significant correlation with growth of SMEs. The correlation is positive indicating that effective product design is associated with positive growth. The positive correlation is significant an indication that it is not a chance correlation, but a real one.

5.1.2 Product Development Response

The study found out that there is a positive and significant effect of product development on the growth of the export manufacturing SMEs. This relationship is positively and significantly enhanced by structural capital of the SME. The growth of these export manufacturing SMEs due to structural capital and product development need to strengthen their product development and structural capital capabilities so as to outperform their counterparts of equal product development abilities. Thus showing the importance of structural capital in growth of SMEs. SMEs with strong Product development and growth of export manufacturing SMEs in Nairobi County are positively and significantly correlated.

5.1.3 Product Differentiation Response

The study found out that product differentiation has a positive and significant effect on growth of SMEs and the relationship is enhanced positively and insignificantly by structural capital of the SME. With interaction term not significant suggesting that the structural capital positively but insignificantly moderate the positive relation between product differentiation and growth of SMEs. This suggest that structural capital differential among SMEs does not distinguish performance level between SME of similar product differentiation. Product differentiation and growth of the export manufacturing SMEs is significantly and positively correlated.

5.1.4 Product Innovation Response

The study found out that product innovation and growth of the export manufacturing SMEs is significantly and positively correlated. It also showed that product innovation positively and significantly enhances performance of export manufacturing SMEs. The growth of export manufacturing SMEs is further enhanced positively and

significantly by structural capital capabilities over the performance achieved by product innovation capabilities alone.

5.1.5 Structural Capital

The study found out that structural capital and growth of the export manufacturing SMEs is significantly and positively correlated. It also showed that structural capital positively and significantly moderated the relationship between product design response, product development response and product innovation response and the growth of export manufacturing SMEs. Structural capital positively and insignificantly moderated the relationship between product differentiation and the growth of export manufacturing SMEs.

These key findings led the study to make the following conclusions.

5.2 Conclusions

Based on the findings of the study, the following conclusions were arrived at; that,

Product design response has a positive and significant effect on growth of export manufacturing SMEs in Nairobi county. This relationship is positively and significantly moderated by structural capital. Product design includes the firm having unique products in the market, have a strong emphasis of product brand loyalty as well as have more reliable products in the market. Product design can be influenced by ensuring the products are highly integrated.

Product development response has a positive and significant effect on growth of export manufacturing SMEs in Nairobi county. This relationship is positively and significantly moderated by structural capital. Product development includes the firm improvement of existing products in existing market as well as improve of existing

products to introduce to new markets. Product development can be influenced by ensuring the firm always engage in new product development as well as do creation of package deals for their customers.

Product differentiation response has a positive and significant effect on growth of export manufacturing SMEs in Nairobi county. This relationship is positively and insignificantly moderated by structural capital. Product differentiation includes the firm offering reliable products and creation of brand image. Product differentiation can be influenced by ensuring delivery of superior customer service as well as offer good products and friendly pricing.

Product innovation response has a positive and significant effect on growth of export manufacturing SMEs in Nairobi county. This relationship is positively and significantly moderated by structural capital.The product innovation includes the firm creation of new products as well as creation of products that perform better and are of higher quality. Product innovation can be influenced by ensuring the business does application of new technologies, processes in creation of good enough products to the existing SME industry as well as address of transformation issues within the SME.

Structural capital positively and significantly moderates the relationship between strategic product responses and growth of export manufacturing SMEs in Nairobi county. Structural capital includes strong routines that help it achieve its objectives as well as availability of processes and information that help firm use its knowledge to achieve its objective. Structural capital can be influenced by ensuring strong procedures are followed to achieve best results as well as use tools that are available that help the firm achieve its objective.

5.3 Recommendations

Based on the conclusions, the following recommendations were made;

5.3.1 Managerial Recommendations

Managers of the export manufacturing SMEs in Nairobi county should work towards strengthening product design response by creation of unique and reliable products as it will increase growth.

Managers of the export manufacturing SMEs in Nairobi county should work towards strengthening product development response by development of new products, improving of existing products and creation of package deals as it will increase growth.

Managers of the export manufacturing SMEs in Nairobi county should work towards strengthening product differentiation response by offering quality customer service, build image and ensure product reliability as it will increase growth.

Managers of the export manufacturing SMEs in Nairobi county should work towards strengthening product innovation response by transformation of expensive and sophisticated products into simpler and affordable one that can be accessible to a broader population as it will increase growth.

Managers of the export manufacturing SMEs in Nairobi county should strengthen their structural capital as it moderates the strategic product responses relationship with the growth of the SMEs thus expect a growth on them.

5.3.2 Policy Recommendations

1. The government, in collaboration with export manufacturing SMEs stakeholders should enact polices that support the sector especially on taxes and licenses that increases unnecessarily the cost of doing business.

2. The SMEs should be supported to be centers of innovation by removing laws that are bottlenecks to research and innovation. There is need for favorable intellectual property laws.

i. 3.SMEs align with Sustainable Development Goals (SDGs) of ending poverty in all its forms everywhere and promoting inclusive and sustained economic growth. Also, SMEs are critical in achieving SDG goal 9 (build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation). SMEs should be supported by trade promotion organizations to provide market information, as well as training and networking opportunities if Kenya is to attain the SDG milestones.

5.4 Suggestions for Future Research

In the current study, structural capital and the strategic product responses are significant factors towards growth of the export manufacturing SME. Future studies should investigate the determinants of structural capital in SMEs sector.

Studies in future should focus on the influence of strategic product responses on other non- growth aspects which is affected by all SMEs categories.

Studies in future should assess strategic product responses, structural capital and their effect on growth in other industries especially the hotel industry.

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Appendices

Appendix I: NACOSTI Permit Letter

NACOSTI PERMIT

SCHOOL OF BUSINESS AND ECONOMICS

DEAN'S OFFICE

P.O. Box 3900
43153/43620 Ext.434
ELDORET

Tel./Fax **254-053-**

1st, August 2023

Attn; NACOSTI

PO Box

Nairobi

Dear Sir/Madam,

RE: MARTHA KAGORE SHIKARO - PGM/001/19

This is to confirm that the above named person is a postgraduate student in the School of Business & Economics where she is pursuing a Masters of Business Administration (MBA). She is expected to collect research data in Kenya for a period of three months. Her research thesis is titled: **'STRATEGIC PRODUCT RESPONSES, STRUCTURAL CAPITAL AND THE GROWTH OF EXPORT MANUFACTURING SMALL AND MEDIUM SIZED ENTERPRISES IN NAIROBI COUNTY.'**

Any assistance accorded to her especially on the issuance of research permit is highly appreciated.

Yours faithfully,

DR. STANLEY KAVALE

POST GRADUATES COORDINATOR/ SBE COAST CAMPUS

Appendix II: Introduction Letter

Martha Kagore
P.O. Box 43295-80100,
Cell 0707 370514
1st August, 2023
Nairobi- Kenya.

To SME Owner/ Manager,
Nairobi County
P.O Box
Nairobi.
Kenya

Dear Sir/ Madam,

RE: REQUEST FOR PERMISSION TO CARRY OUT RESEARCH (DATA COLLECION)

I am a student at Moi University pursuing a Degree of Masters in Business Administration. Pursuant to the pre-requisite course work, I would like to conduct a research on **STRATEGIC PRODUCT RESPONSES, STRUCTURAL CAPITAL AND THE GROWTH OF EXPORT MANUFACTURING SMALL AND MEDIUM SIZED ENTERPRISES IN NAIROBI COUNTY.**

Kindly complete the attached questionnaire. Data collected shall be treated with utmost confidentiality and strictly will be used for academic purpose only.

Thanking you in advance as I look forward for your cooperation.

Yours faithfully,

Martha Kagore.
Student, School of Business and Economics

Appendix III: Questionnaire

STRATEGIC PRODUCT RESPONSES, STRUCTURAL CAPITAL AND THE GROWTH OF EXPORT MANUFACTURING SMALL AND MEDIUM SIZED ENTERPRISES IN NAIROBI COUNTY

1. For how long has your SME been in operation?

   0-5 years [ ]

   5-10 years [ ]

   Over 10 years [ ]

2. What are the major products the business deals with?

   Clothing/Accessories [ ]

   Food Manufacturers [ ]

   Furniture Masons [ ]

   Jua Kali Artifacts [ ]

   Steel Products [ ]

3. For how long have you worked at the SME industry?

   0-5 years [ ]

   5-10 years [ ]

   Over 10 years [ ]

Kindly indicate the following statements that reflects this firm using the following key

Very Great Extent = VGE Great Extent = GE Moderate Extent = ME
Small Extent = SE No Extent = NE

PRODUCT DESIGN					
Product Design Response in export manufacturing SMEs in Nairobi Compared to competitor firms …					
4. we have unique products in the market	VGE	GE	ME	SE	NE
5. We have more reliable products in the market	VGE	GE	ME	SE	NE
6. Our products are highly integrated	VGE	GE	ME	SE	NE
7. We have a strong emphasis of product brand loyalty	VGE	GE	ME	SE	NE
PRODUCT DEVELOPMENT					
Product Development Response in export manufacturing SMEs in Nairobi Compared to our competitors…					
8. We always engage in new product development	VGE	GE	ME	SE	NE
9. We improve of existing products in existing market.	VGE	GE	ME	SE	NE
10. We improve of existing products to introduce to new markets	VGE	GE	ME	SE	NE
11. We do create package deals for our customers	VGE	GE	ME	SE	NE
PRODUCT DIFFERENTIATION					
Product Differentiation Response in export manufacturing SMEs in Nairobi compared to competitor firms…					
12. We offer good products and friendly pricing	VGE	GE	ME	SE	NE
13. We deliver superior customer Service	VGE	GE	ME	SE	NE
14. We have a strong brand Image	VGE	GE	ME	SE	NE
15. We offer reliable products	VGE	GE	ME	SE	NE
PRODUCT INNOVATION					
Product Innovation Response in export manufacturing SMEs in Nairobi compared to competitor firms…					
16. We do application of new technologies, processes in creation of good enough products to the existing SME industry.	VGE	GE	ME	SE	NE
17. We address transformation issues within the SME	VGE	GE	ME	SE	NE
18. We create products that perform better and are of higher quality	VGE	GE	ME	SE	NE
19. We do creation of brand new products	VGE	GE	ME	SE	NE
STRUCTURAL CAPITAL					
Compared to other competitor SMEs, this SME has …					
20. Strong routines that help it achieve its objectives	VGE	GE	ME	SE	NE
21. Strong procedures followed to achieve best results	VGE	GE	ME	SE	NE
22. Tools, processes and information are available that help firm retain/use knowledge to achieve its objective.	VGE	GE	ME	SE	NE
SME GROWTH					
Growth of export manufacturing SMEs in their SMEs, there is a general increase in …					
23. Strategic product responses enhances SMEs profits	VGE	GE	ME	SE	NE
24. Strategic product responses results in revenue in the SMEs	VGE	GE	ME	SE	NE
25. Strategic product responses promotes production volume in the SMEs	VGE	GE	ME	SE	NE

26. Strategic product responses increases capital base in the SMEs	VGE	GE	ME	SE	NE
27. On average, the number of employees is on the increase in the last five years	VGE	GE	ME	SE	NE

Thank you very much for your Cooperation

Appendix IV: NACOSTI Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **465722**

Date of Issue: **13/August/2023**

RESEARCH LICENSE

This is to Certify that Ms.. MARTHA KAGORE SHIKARO of Moi University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: STRATEGIC PRODUCT RESPONSES, STRUCTURAL CAPITAL AND THE GROWTH OF EXPORT MANUFACTURING SMALL AND MEDIUM SIZED ENTERPRISES IN NAIROBI COUNTY for the period ending : 13/August/2024.

License No: **NACOSTI/P/23/28447**

465722

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

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See overleaf for conditions

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013 (Rev. 2014)

Legal Notice No. 108: The Science, Technology and Innovation (Research Licensing) Regulations, 2014

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was the established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

CONDITIONS OF THE RESEARCH LICENSE

1. The License is granted subject to provisions of the Constitution of Kenya, the Science, Technology and Innovation Act, and other relevant laws, policies and regulations. Accordingly, the licensee shall adhere to such procedures, standards, code of ethics and guidelines as may be prescribed by regulations made under the Act, or prescribed by provisions of International treaties of which Kenya is a signatory to
2. The research and its related activities as well as outcomes shall be beneficial to the country and shall not in any way;
    i. Endanger national security
    ii. Adversely affect the lives of Kenyans
    iii. Be in contravention of Kenya's international obligations including Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
    iv. Result in exploitation of intellectual property rights of communities in Kenya
    v. Adversely affect the environment
    vi. Adversely affect the rights of communities
    vii. Endanger public safety and national cohesion
    viii. Plagiarize someone else's work
3. The License is valid for the proposed research, location and specified period.
4. The license any rights thereunder are non-transferable
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11. The Commission reserves the right to modify the conditions of the License including cancellation without prior notice.
12. Research, findings and information regarding research systems shall be stored or disseminated, utilized or applied in such a manner as may be prescribed by the Commission from time to time.
13. The Licensee shall disclose to the Commission, the relevant Institutional Scientific and Ethical Review Committee, and the relevant national agencies any inventions and discoveries that are of National strategic importance.
14. The Commission shall have powers to acquire from any person the right in, or to, any scientific innovation, invention or patent of strategic importance to the country.
15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

National Commission for Science, Technology and Innovation(NACOSTI),
Off Waiyaki Way, Upper Kabete,
P. O. Box 30623 - 00100 Nairobi, KENYA
Telephone: 020 4007000, 0713788787, 0735404245
E-mail: dg@nacosti.go.ke
Website: www.nacosti.go.ke

Appendix V: Plagiarism Certificate

SR399

ISO 9001:2019 Certified Institution

THESIS WRITING COURSE

PLAGIARISM AWARENESS CERTIFICATE

This certificate is awarded to

MARTHA KAGORE SHIKARO

SBE/PGM/001/19

In recognition for passing the University's plagiarism

Awareness test for Thesis **entitled: STRATEGIC PRODUCT RESPONSES, STRUCTURAL CAPITAL AND THE GROWTH OF EXPORT MANUFACTURING SMALL AND MEDIUM SIZED ENTERPRISES IN NAIROBI COUNTY** with a similarity index of 10% and striving to maintain academic integrity.

Word count: 25652

Awarded by

Prof. Anne Syomwene Kisilu

CERM-ESA Project Leader Date: 20/11/2023