DYNAMIC CAPABILITIES AND PERFORMANCE OF SMALL AND MEDIUM AGRIFOOD ENTERPRISES IN NAIROBI COUNTY

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ABSTRACT

Despite the rapid growth and transformation of small and medium size enterprises (SMEs) in the recent past, their performance has been declining. As a result, Kenya has been experienced frequent food deficits. Owing to this, managers and scholars have considered how dynamic capabilities may be central to their strategies to enhance performance. The concept of dynamic capabilities has gained significance in the last decade and thereby increased research and varying definitions. The measurement of the performance of firms also doesn't have a consensus. As such, this study looked to determine the influence of dynamic capabilities on the performance of small and medium size agrifood enterprises in Nairobi County. The specific objectives were to determine the influence of sensing capabilities on the performance of small and medium size agrifood enterprises in Nairobi County, to determine the influence of seizing capabilities on the performance of small and medium size agrifood enterprises in Nairobi County, to determine the influence of innovation capabilities on the performance of small and medium size agrifood enterprises in Nairobi County, to determine the influence of learning capabilities on the performance of small and medium size agrifood enterprises in Nairobi County. Sensing capability, seizing capability, innovation capability and learning capability are the independent variables. The study is grounded on the Dynamic Capability Theory and supported by Resource based View Theory, Knowledge-Based Theory of Innovation, Organizational Learning Theory, and Optimal Firm Size Theory. The study adopted descriptive research design. The study population consisted of 129 Food and Beverage SMEs based in Nairobi as listed in the Kenya Association of Manufacturer's 2022/2023 database. The study adopted a random sampling method in order to identify appropriate sample size using systematic random sampling. A sample size 96 was determined using the formulae for determining sample size from a finite population. The target respondents were the owners, CEOs, Senior Managers, or directors of the agrifood SMEs. Primary data on dynamic capabilities, firm size and performance metrics was collected using structured questionnaires. A pilot test was done to determine the validity and reliability of the instruments.

Data was analyzed using both descriptive and inferential statistics. Descriptive statistics were used to provide summary of survey data and summary statistics of the objectives. Regression analysis was used to investigate the hypothesized relationship among the study variables. The study used a multiple linear regression model. To investigate whether independent variables had combined effect on the dependent variables, Analysis of Variance (ANOVA) was used. The data was tabulated for ease of presentation and analysis. The study demonstrated that dynamic capacities had a positive impact on the performance of small and medium agrifood enterprises in Nairobi City County, Kenya. This implied that dynamic capabilities, including sensing, seizing, innovation and learning capabilities play a crucial role in the performance of small and medium-sized enterprises in the County. Based on the research findings, agrifood enterprise senior manager and/or owners are encouraged to systematically evaluate market developments and incorporate relevant insights into their business operations. Additionally, when formulating public policies to growth of agrifood enterprises, it is important to consider both the varied capability configurations uncovered in this study and the specific goals of SME owners to achieve more targeted strategic objectives.

INTRODUCTION

Background of the study

Over the course of the last three decades, there has been rapid rate of technological change, shortened life cycles of products and services, increased globalization, improved consumer knowledge and grey industry boundaries. As a consequence of this dynamic environment, firm managers are looking for strategies to enable their businesses to thrive (Pisano, 2017). Threats to sustainability of firms drive concerns over their performance. The growing competition for resources and markets justify concerns on firm performance (Santos & Brito, 2012).

Agrifood SMEs are critical in the production, processing, and marketing of food in low and middle income countries, especially for low income consumers (Demmler, 2020). They play a central role in food security and livelihoods. But SMEs are vulnerable to shocks, limited investment in innovation and Research and Development (R&D). This situation is more compounded for SMEs in the informal sector as they have limited access to affordable finance, weak capital, poor skills and technologies (KIPPRA, 2021). Access to financing is partly contributed to by the fact that SMEs are too big for microfinance and too small for commercial lending. Shocks such as the COVID-19 pandemic and associated control measures have eroded economic growth and disproportionately affected micro and small enterprises (KIPPRA, 2021), yet these firms alone make up 97% of the enterprises in the formal sector (Kenya National Bureau of Statistics, 2021).

In Kenya, the declining performance of food manufacturing firms has contributed to food insecurity (KIPPRA, 2021). SMEs in the informal sector have limited capacities to make investments in building resilience. In particular, poor performance of Kenyan food manufacturing firms has increased pressure on them to better perform in order to meet the ever growing demand for food (KIPPRA, 2021). This study is using the performance of agri-food SMEs dealing in Nairobi County as the dependent variable for the study as it is important in food and nutrition security in Kenya and an essential driver for the achievement of UN Sustainable Goal (USDG) 2 on ending hunger and all forms of malnutrition by 2030. Additionally, the SME sector is a key cornerstone for the realization of the aspirations of Kenya's Vision 2030.

The mid-stream segment (processing, logistics, wholesale and retail) – often referred to ask "the missing middle'' – of the agri-food value chain has received less research and policy attention yet the segment has rapidly transformed over the past few decades and forms between 30% and 40% of cost and value addition in the agri-food value chain (Reardon, 2015). Studies have largely focused on upstream and downstream. This study focuses on agri-food SMEs in the 'hidden' mid-stream of the agri-food value.

The definition of SMEs greatly varies by organization and metrics. Micro enterprises are that which employ less than ten people while small enterprises employs between ten and fifty people (Micro and Small Enterprises Act, 2013). UNIDO defines SMEs by number of employees where micro enterprises employ below 10, small enterprises 10 to 49, and medium enterprises 50 to 249 (UNIDO, 2005). This study shall adopt UNIDO's definition. The literature on firm performance is

incomplete and debate on it is ongoing. The purpose of this study is to empirically investigate the effect of dynamic capabilities (sensing, seizing, innovation, and learning) on the performance of agrifood SMEs in Nairobi County, Kenya.

The changes and dynamism in the organizational environments result in turbulence which affects their performance. The complexity and sophistication of the organizational environment require strategic management. Strategic managers view dynamic capabilities as integral for firm performance (D. J. Teece, 2017). Environmental factors should be anticipated, monitored, assessed, and incorporated into executive management decision-making. This study has chosen dynamic capabilities as its independent variable because the capabilities are seen as drivers of firm performance as they enable businesses to adapt to dynamics in their environments.

Dynamic capabilities

Dynamic Capability (DC) is a concept which guides how organizations can address environmental turbulence by renewing their internal and external competencies. The dynamic capability concept emanated from the Resource-Based View (RBV) of a firm. RBV holds that a firm's ''inimitable, rare, and unique resources are a source of competitive advantage'' (Barney, 1991). The concept is defined as the ''ability of organizations to adopt, integrate, and reconfigure internal and external organizational skills, resources, and functional competencies in order to address or cope in a highly dynamic environment" (Teece et al., 1997).

Over the last decade, the dynamic capabilities concept has gained significance and attracted further research and refined definitions by different scholars. Eisenhardt and Martin describe dynamic capabilities as "firms' procedures that employ resources to meet and generate market" (Eisenhardt & Martin, 2000). This definition view DC as a process which includes alliances and acquisitions capabilities, routines for product development, knowledge transfer and replication and resource allocation routines. Eisenhardt and Martin further extended DC to include responses to external events and changes in the creation of markets. They also suggested that dynamic capabilities can be used in situations that do not undergo or experience rapid changes. Helfat and Peteraf posited that dynamic capabilities are ''the capacities of an organization to purposefully create, extend or modify its resource base'' (Helfat & Peteraf, 2009).

Teece built on his earlier definition, basing on his work entrepreneurial theory of the multinational enterprise, to further define dynamic capabilities as the "gradual extension and development of a resource-based viewpoint because it influences how abilities change and how organizations handle instability in their operating environment" (D. J. Teece, 2014) . Zahra, Sapienza, and Davidson define dynamic capabilities as the ''capacity of an organization to internally form change and to be able to respond to environmental disturbance or instability" (Zahra et al., 2006).

Dynamic capabilities can be categorized into several constructs (D. Teece et al., 2016; D. J. Teece et al., 1997). The study focuses on sensing, seizing, innovation and learning capabilities. Sensing capability is the "ability of a firm to recognize and analyze trends in the market and changes in opportunities and risks" (D. J. Teece, 2007). For sustainability, organizations ought to pay attention to changes in their business environments. Teece defines seizing as a firm's ability to proactively

pursue changes in its environment in order to respond quickly to them (D. J. Teece, 2007). This includes mobilization of resources to address needs and opportunities and capture value from doing so. Innovation capability is that which facilitates firms to apply appropriate process technologies, to develop new product, and meet the market needs and eliminate competitive threats (Ince et al., 2016). Learning capability is as an organizational capability that makes effective organizational learning possible by managing the process of organizational learning (Uğurlu & Kurt, 2016) . This study will use Teece's (2007) conception to conceptualize dynamic capabilities.

Firm performance

Firms always seek to improve their performance. As such, the assessment of performance of businesses has always been of interest to researchers and management. Practicing managers and scholars also have interest in measuring organizational performance (P. J. Richard et al., 2009). Additionally, performance is of importance to firms' stakeholder, investors, and economy (Mirza, 2013). A firm's performance is an indication of how successful it is in achieving its goals and objectives. Businesses strive to improve their performance through the implementation of best practices, process improvements, and technology upgrades.

While performance is commonplace in research, the concept has not had a universally acceptable definition. Debate on it is ongoing and its literature is incomplete. Performance measurement and dimensionality of firm performance doesn't have a consensus. Neely, who carried out functional analysis and theoretical foundation of performance measurement, notes that performance measurement's incredible diversity presents both opportunities and challenges owing to functional development of different careers (Neely, 2007) . He adds that this makes it difficult for different generations of researchers to build on each other's work. However, performance remains an important management research construct.

Richard et al. describes performance as being "the ultimate dependent variable of interest for researchers concerned with just about any area of management" (P. J. Richard et al., 2009). Moreover, firm performance can be defined as the "accomplishment of firm goals as well as the efficiency and effectiveness in the utilization of resources through core strategies" (Mirza, 2013). It can also be conceptualized as the extent to which businesses achieve their goals (Taouab & Issor, 2019). The firm performance concept is grounded in the notion that a business is an amalgamation of assets or resources used to form value. As such, if an enterprise produces a value that surpasses or is equivalent to what its providers anticipate, then resources are going to be accessible, and the firm will remain to endure and flourish (Gavrea et al., 2011).

The focus on performance in this study was guided by the stakeholder theory and the definition adopted is one that views performance as the extent to which businesses meet both their set non-financial and financial expectations. It is clear from the above reasons that firm performance is very important in management. However, as ubiquitous as organizational performance is, researchers have contrastingly paid less attention to how it is measured. A review of 213 journals that included firm performance as either independent, dependent or control variable showed that 207 different firm performance measure were used (P. J. Richard et al., 2009).

Organizations use a variety of performance metrics, such as key performance indicators, to monitor and evaluate their performance over time. Marketing, human resources, operations and strategy are measured by their contribution to businesses' performance (P. J. Richard et al., 2009). Other studies have focused on market based, operational, and financial performance measures (P. J. Richard et al., 2009). Many studies have uni-dimensionally focused on financial performance as the only metric for measuring performance (Hall & Slaper, 2011) much to the detriment of ignoring non-financial measures. Financial measures focus on metrics such as share price, economic value added, and sales revenue (Abbasi & Malik, 2015).

Having considered all the above performance measurement metrics, this study shall use return on investment, number of customers, employee training and customer retention. This is because the top management or ownership of SMEs readily have information on these areas.

Global perspective

Globally, it is generally acknowledged that the performance of SMEs is important for both social and economic development both in developed and developing economies. In developed countries, SMEs employ more workforce than multinational companies (Ackah & Vuvor, 2011). Economically, SMEs are engines of growth that generate employment and income (Abor & Quartey, 2010). In developing countries, SMEs are responsible for bringing more than 70% of food to market (Demmler, 2020).

Studies in France, Italy, and USA suggest that sustainability is a major challenge for agrifood systems (Lascialfari et al., 2019). Recent studies have argued that changes in agriculture need to be combined with changes that help to address societal problems including diets and climate change. However, agrifood firms have limited incentive to address such societal problems through radical innovations, which have more risk and often require important changes in knowledge, skills, processes, and organizations (Geels, 2014), in addition to the externality problems they might bring about (Lascialfari et al., 2019). The food sector in these developing economies is characterized by strong conservative attitudes (Lascialfari et al., 2019). Consequently, incumbent firms prefer continuing on the same path and incremental change.

The Canadian Ministry of Agriculture and Agri-Food identified more than 3,500 new pulse-based foods launched in Europe between 2010 and 2014 (AAFC, 2015). However, the motivation and development obstacles behind this firms' move to develop foodstuff from pulse is not known. Another study by (Caiazza, 2016) in Italy points out that small and medium-sized enterprises (SMEs) have immense interest in global supply chain. However, the knowledge about how it affects internationalization of SMEs is still underdeveloped and hence has a knowledge gap. Moreso in the agrifood industry, SMEs are unable to internalize the global supply chain for exporting their products abroad.

Regional perspective

Agrifood SMEs are playing an active role in African food value chains and are highly important for production, processing, and retail, particularly for low income consumers (Demmler, 2020). There are 44 million MSMEs in Sub-Saharan Africa which creates jobs and income for the continents' population. As African consumers are net food buyers, MSMEs in the continent also play a key role in food security. Additionally, agrifood value chains have grown and transformed tremendously over the past decades, especially in developing countries (Reardon et al., 2021). This growth has been spurred by liberalization, rapid urbanization, private investment and growth in income (Reardon, 2015; Reardon et al., 2021). However, the rapid transformation, dubbed the 'quiet revolution', in the mid-stream node of the agri-food value chain has been largely ignored both by research and policy considerations.

While other parts of the world have focused on the modern revolution of food value chains, sub–Saharan Africa is still in the 'transitional stage'. The transitional stage is characterized by many MSMEs and few emerging large businesses (Reardon et al., 2021). The FAO places midstream agrifood SMEs are key in food security through their influence on food access, availability, stability and utilization (FAO, 2017).

Local perspective

In Kenya, SMEs emerged almost three decades ago and has been gradually growing and employing a growing number of Kenyans. In terms of the country's GDP, SMEs' contributed to 33.8% of the national output in 2015 (KNBS, 2016) and 30% of manufacturing GDP in 2018 (KAM, 2018). A 2016 survey showed that there were 1.56 million SMEs licensed by county governments in Kenya (KNBS, 2016). The MSME sector has been identified as a crucial growth driver in the achievement of Kenya's Vision 2030 (KNBS, 2016). Food manufacturing is one of the largest sub-sectors in manufacturing in Kenya. The agricultural manufacturing sub sector contributes 48% of the sum of manufacturing contribution to the GDP. The sector plays roles in economic growth and development through provision of goods and services, creation of employment, fostering innovation, enhancement of competition and as a result alleviating poverty. In Nairobi, formal MSMEs employ 27.8% of the population (KNBS, 2016). The Kenya agro-processing, a food manufacturing sub-sector, generated 246,272 jobs in 2018 and 2019.

However, despite all the importance and potential roles of MSMEs in socioeconomic development, there are several challenges that limit attainment of their potential. These challenges include limited access to financing, regulatory constraints, poor technology and equipment, markets access and lack of managerial skills (Abor & Quartey, 2010). Poor performance in the supply side has been caused by poor post-harvest handling, low production, and vulnerability to weather shocks (KIPPRA, 2021).

In 2020, the Kenya manufacturing sector was negatively affected by the coronavirus pandemic and associated control measure. The Kenyan government introduced containment measures curfews, partial lockdowns, and cessation of movement (KIPPRA, 2021). MSMEs were specifically required

to introduce measures that allow for social distancing such as rearranging floor plans. As a result of all these, the performance of agri-food MSMEs was negatively affected as indicated by studies carried out (GAIN, 2020). In the second and third quarters of 2020, the manufacturing sector contracted by 4.7 per cent and 1.7 per cent respectively as the effects of the pandemic begun to be felt. A study by KEPSA in 2020 also showed that only 58 per cent of firms retained their staff (KEPSA, 2022). A 2020 study by KPMG and KAM showed that most manufacturing firms in Kenya experienced a decline in turnover owing to the COVID-19 pandemic (KIPPRA, 2021).

There is no agreed universal definition of SMEs as there are different definitions based on different parameters. Different researchers have used size, skills of labour, turnover size, sales, and capital assets. UNIDO defines SMEs in developing countries as micro firms employ fewer than 5 workers, small 5-19 workers and medium as employing 20-99 workers (Abor & Quartey, 2010). For the purpose of this study, this definition by the Act shall be adopted.

Growing food demand and recent frequent food shortages have increased pressure on and attention to performance of food manufacturing business in Kenya. Furthermore, there has been pressure on agrifood processing firms to introduce appropriate management strategies that will ensure attainment of growth goals and increased performance (KIPPRA, 2021). Increases in performances and food production by food businesses is viewed as central to attaining food security and meeting UN SDG 2, creation of employment, and Kenya Vision 2030. However, government policy papers on food value chains have not paid attention to the dynamic capabilities of agrifood manufacturing businesses (Gok, 2022).

Statement of the problem

Despite the rapid growth and transformation of SMEs in the recent past, their performance has been declining. In 2021 in Kenya, the production of animal and vegetable and oil declined by 2.8% while the volume of fruits and vegetables recorded a 14% decline (KNBS, 2022). Moreover, a study on mid-stream agri-food SMEs in developing countries showed that 98% (n=321) had their performance affected by the COVID-19 pandemic and its associated policy responses (GAIN, 2020). As a result of the declining performance of food manufacturing firms.According to data from the Kenya National Bureau of Statistics, the Agrifood industry in Kenya has exhibited poor performance when compared to other sectors (KPMG, 2017; ROK, 2018; KAM, 2018). Between the years 2014 and 2017, the sector experienced a growth rate of only 3.5%. In contrast, sectors such as agriculture, energy, transport, and storage, and building and construction achieved significantly higher growth rates of 4.4%, 6.5%, 7.2%, and 9.2% respectively (KPMG, 2017; ROK, 2018; KAM, 2018)

The small and medium-sized retail sectors have been identified as significant contributors to Kenya's economic development plan, with 76% of SMEs in this sector accounting for up to 10.8% of the country's GDP (GoK, 2018). Kenya has been experiencing a food deficit (KIPPRA, 2021). Agrifood SMEs are critical in the production, processing, and marketing of food in low and middle income countries, especially for low income consumers (Demmler, 2020). SMEs play a central role in food and nutrition security and the achievement of Vision 2030 and UN SDG 2. But their

performance is affected by limited access to affordable finance, weak capital, poor skills and technologies (KIPPRA, 2021). Poor performance of SMEs in Kenya has led to their collapse. Hampwaye and Hampunda (2016) observed that firms' inability to cope with the dynamics in their operating environment contributed to their poor performance which in turn led to their decline or stagnation. There is no significant consensus regarding the relationship between dynamic capabilities and performance owing to inexhaustive studies on the dynamic capabilities concept. As a result, there are different views of how dynamic capabilities influence the performance of businesses (Gorgól, 2017). For example, researchers have suggested that dynamic capabilities are moderators, preconditions, mediators, or direct drivers of business performance (Arend & Bromiley, 2009).

Moreover, most of the empirical studies that have been carried out on the influence of dynamic capabilities of the performance of businesses have been in developed nations which have different cultural and economic conditions relative to developing countries (Protogerou, n.d.). However, a few studies have been done in low- and middle-income countries focusing more broadly on manufacturing firms but none on agrifood SMEs. While these studies have revealed that a third of manufacturing firms failed or closed owing to lack of key dynamic capabilities (Chemely et al., 2021), it is difficult and unrealistic to generalize those findings of all of these studies to other countries, settings, sectors, or companies. Based on this background, this study chose to focus on determining whether dynamic capabilities influence the performance of agri-food SMEs in Nairobi City County, Kenya focusing on both financial and non-financial performance metrics.

Objectives of the study

General objective

To establish the influence of dynamic capabilities on the performance of small and medium size agrifood enterprises in Nairobi County.

Specific objectives

The study will seek:

i) To determine the influence of sensing capabilities on the performance of micro, small and medium size agrifood enterprises in Nairobi County.
ii) To determine the influence of seizing capabilities on the performance of micro, small and medium size agrifood enterprises in Nairobi County.
iii) To determine the influence of innovation capabilities on the performance of micro, small and medium size agrifood enterprises in Nairobi County.
iv) To determine the influence of learning capabilities on the performance of micro, small and medium size agrifood enterprises in Nairobi County.

Significance of the study

Government

Agrifood SMEs play a key role in food and nutrition security, economic growth, and creation of employment. In Kenya, the declining performance of food manufacturing firms has contributed to food insecurity. This study will contribute to understanding how dynamic capabilities may contribute to improved performance of firms which will go a long way in improving food and nutrition security in the country. SMEs also play a central role in the achievement of Kenya Vision 2030 and the results of this study will inform how SMEs can improve their contrition to the agenda. The results of the study were useful and informative for government policy papers on food value chains.

Stakeholders

This study is helpful to Enterprise Support Organizations identify how to better support agrifood SMEs to achieve scale. It bolsters the role of agrifood SMEs in achieving sustainable and resilient food systems.

Scholars

This study contributes to the existing body of knowledge on the role that dynamic capabilities play in influencing firm performance. This includes providing empirical evidence on the influence of dynamic capabilities on the performance of agrifood SMEs and broaden the uni-dimensional measurement of firm performance. As the only study to study dynamic capabilities on agrifood SMEs in Kenya, this study provides sub-industry specific value to other existing studies that have focused generically on manufacturing firms.

SMEs

This study supports agrifood SMEs understand how they may use sensing, seizing, innovation and learning capabilities to drive performance sustainably. The study has made recommendations for appropriate management strategies that contribute to firm performance. The results and recommendations guide firm managers in resource allocation for the purpose of creating dynamic capabilities and achieving set performance targets.

Scope of the study

The study sought to determine the influence of dynamic capabilities on the performance of small and medium size agrifood enterprises in Nairobi County. This study focused on agrifood SMEs in the Food and Beverage sub sector classification of the Kenya Association of Manufacturer's (KAM) database. The food SMEs formed the unit of analysis. The target population was 123 food SMEs in processing, logistics, wholesale and retail in the KAM 2022/2023 directory's Food and Beverage sector that have been in operation for at least three years. From the population, a sample of 96 SMEs that fall in the category of small and medium enterprises was used with the number of employees as the metric was selected. The study targeted firm owners, CEOs, or directors as they were better placed to provide judgement on the influence of dynamic capabilities on the performance of their businesses. Both financial and non-financial measures of performance were included, and the independent variables include sensing, seizing, innovation, and learning capabilities. Nairobi County was chosen since the majority of the Agrifood SMEs are concentrated in Nairobi County.

Limitations of the study

The results of the study were interpreted in the context of the limitations of the study. The study assumes that the judgement of the respondents regarding dynamic capabilities and SME performance was objective. The chances, however, are that there could have been under or over reporting by the respondents based on their position, period in the firm, role, and job satisfaction (B. Richard et al., 2016).

LITERATURE REVIEW

This chapter focuses on the literature review as relevant to the study on dynamic capability and its contribution to performance. It specifically focuses on theoretical, conceptual, and empirical literature. The first section introduces the theoretical framework that anchors the study. The section that follows provides empirical review and focuses on each hypothesized variable and their individual relationship with performance. Following this is the demonstration of the conceptual framework of the study. At the end of the chapter, there is a critique of existing literature, summary of reviewed literature, and research gaps.

Theoretical Review

This study was guided by the Dynamic Capability Theory as the anchor theory. Since the anchor theory cannot inform the all the variables, this study identifies additional complementary theories. The additional complementary theories include resource-based view theory, Knowledge-Based Theory of Innovation, Organizational learning theory and The Stakeholder Theory

Dynamic Capabilities Theory

The Dynamic Capability Theory (DCT) was developed by Teece, Pisano, and Shuen (D. Teece et al., 1997). DCT evolved from and is rooted in the Resource-Based View Theory (RBV) of the firm (Barney, 1991). The theory enhances the RBV (Teece, Pisano & Shuen, 1997; Teece 2017; Zahra et al., 2006). Teece, Pisano, and Shuen (1997, 2007) saw the competitive advantage in turbulent environments as a function of dynamic capabilities rather than competitive positioning or industry conflict. They used the term "dynamic" to reflect the capacity to renew competences to achieve congruence with the changing environment.

Dynamic capabilities are the ''abilities of an organization to adopt, integrate, build, and reconfigure internal and external competencies to address or cope with a rapidly changing environment to remain relevant in the market" (D. Teece et al., 1997). Zahra, Sapienza, and Davidson (2016) define them as the ''capacity of an organization to internally form change and to be able to respond to environmental disturbance or instability". According to Teece (2013), dynamic capabilities refer to the gradual extension and development of a resource-based viewpoint because it influences how abilities change and how organizations handle instability in their operating environment.

DCT explains ‘‘how new capabilities can be developed and how novel resource and capability combinations help to attain or sustain competitive advantage under conditions of technological and market changes’ Teece, (2009). Moreover, it explains long-run firm survival by showing how firms can manage competitive threats by redeploying their resources (Teece, 2010). In this theory, firm performance depends on distinct processes shaped by asset positions and the evolution paths the firm has adopted or inherited (Teece et al., 1997 & Pisano, 2016). The theory suggests that performance of a firm during periods of rapid change depends on its ability to sharpen its technological, organizational, and managerial processes (Teece, 2017). Firms use dynamic capabilities to reconfigure their resources as markets emerge, collide, mutate, or cease (Teece, Pisano & Shuen, 1997). Teece (2012) argues that sustainable performance comes from sharpening internal processes, structures, and procedures to generate innovations, be they technological or organizational. He further argued that the dynamic capabilities framework recognizes analytical functions which must be performed at the enterprise level to sustain success.

Winter (2003) argued that the dynamic capability hierarchy begins with operating capabilities or zero-level capabilities that allow firms to earn a living in the present. The first order capabilities allow for a change in zero-order capabilities to occur. Higher-order capabilities are the outcome of organizational learning which result in creating or modifying a firm’s dynamic capabilities. Ambrosini and Bowman (2009) identify second order which they define as renewing dynamic capabilities these second-level dynamic capabilities are developed and embedded within the firm 27 as they progress through time via the accumulation of experience and specific investments. Ambrosini, Bowman, and Collier (2009) recognize another category; regenerative dynamic capabilities that allow the firm to move away from previous practices towards new dynamic capabilities. Regenerative dynamic capabilities like any other dynamic capabilities come in many forms; for example, they might involve restructuring, learning, or leveraging. The critical difference is that whereas renewing capabilities operate directly on the resource base while regenerative capabilities impact the renewing or incremental dynamic capabilities.

DCT assumes that firms can use different flexible models or plans for promotion of their success. The theory, however, fails to consider the usefulness of formal plans in managing firms. Moreover, other criticisms of the dynamic capabilities concept are that they are challenging to measure empirically as are the underlying operational processes as well as the relationship between dynamic capabilities and firm performance (Ambrosini & Bowman, 2009). It is also difficult to measure the routines and processes that are often idiosyncratic to firms or part of resource bundles. The theory contributes to strategic management by explaining how firms can sustain performance using dynamic capabilities. This study used the dynamic capabilities theory to inform the independent variable. This study uses Dynamic Capability Theory as the anchor theory of the study and to inform independent variables.

Resource-Based View Theory

Resource-Based View Theory (RBV) proponents date the emergence of the theory to the 1950s. The theory was first suggested by (Wernerfelt, 1984), and later (Barney, 1991) used Penrose’s (Penrose, 1959) insights to popularize the theory. The early work by Penrose established that

uniqueness that allows firms to differentiate their products from those of their competitors emanated from heterogeneity of firm resources (Penrose, 1959). (M. A. Peteraf & Barney, 2003) hold that firms' tangible and intangible assets resources are key determinants of firm performance. The RBV theory conceives firms as bundles of resources (Wang et al., 2015). Moreover, the theory presents a connection between internal resources, strategy, and the performance of the organization (Helfat & Peteraf, 2014).

RBV conceives firms as bundles of resources (Wang et al., 2015). According to (M. A. Peteraf & Barney, 2003), the critical determinants of firm Performance are the tangible and intangible assets resources owned by the firm. The theory shifts from earlier suggestions that superior performance comes from managing factors that are external to the firm (M. A. Peteraf & Barney, 2003). In essence, the underlying presumption of the theory is that it is the resources and competencies inherent in the firm rather than in the environment which determines firm performance (Wang et al., 2015).. According to (M. Peteraf & Bergen, 1993), a central premise of the resource-based view is that firms compete based on their resources and capabilities.

(Penrose, 1959) took an internal view of firms and argued that firm resources and their success were not dependent on the external environment. (Wernerfelt, 1984) later concurred with this view and took an internal view. (Wernerfelt, 1984) defined resources as ''anything which could be thought of as a strength or weakness of a given firm and as assets which are semi-permanently tied to a firm. These assets can be intangible or tangible'. (Barney, 1991) defined resources as "capabilities, assets, firm attributes, processes, knowledge and information under the control of a firm that enables it to plan and implement given strategies which lead to improvements in its efficiency and effectiveness".

Several researchers (Barney, 1991; M. Peteraf, 1993; Wernerfelt, 1984); concur in their theorization that firms with resources with VRIN attributes (valuable, rare, inimitable, and not substitutable) achieve competitive advantage through implementation of value-creating strategies which are hard to be duplicated by the competition. (Barney, 1991) argued that firms in possession of valuable and rare resources attain competitive advantage and have improved performance in short term. He further posited that for these firm advantages to be sustainable, resources need to be inimitable and non-substitutable. (Barney, 1997) added in addition to firms having valuable, rare, inimitable, and non-substitutable resources, the firms need to have better organization that allow for full exploitation of the potential of the VRIN resources.

The theory emphasizes that value creation and superior performance of a firm is affected by a combination of the competitive strategy and its resource base (Eisenhardt & Martin, 2000). The theory contributes to strategic management by explaining how a form can increase performance by acquiring and utilizing VRIN resources (Alvarez & Busenitz, 2001). Critiques have however faulted the RBV theory for several weaknesses and as such does not explain how to sustain Performance in a dynamic market (Kraaijenbrink & Groen, 2010). (D. Teece, 2010) explained that the RBV was not able to provide explanations as to how some successful firms demonstrated timely responsiveness and rapid and flexible product innovation along with the management capability to effectively coordinate and redeploy internal and external competences.

To overcome the weaknesses of the theory, scholars have suggested that there is correlation between firms' resources and their exploitation. They argue that the focus should be on firms' distinctive capabilities and competences. As such, the RBV has been recently extended to include dynamic capabilities that firm managers. (D. J. Teece et al., 1997) proposed the dynamic capability theory to provide explanation for how managers in firms can ''integrate, build, and reconfigure internal and external competencies to address rapidly changing environments''. This study uses the RBV to inform the independent variable.

Knowledge-Based Theory of Innovation

(Wernerfelt, 1984) initialized the Knowledge-Based View (KBV) Theory. The theory postulates that the accumulation of knowledge is related to the development of new technologies (Chiesi & Manzini, 2016). The theory holds that knowledge, in the form of organizational and technical, is a source of innovation and is grown over time through the interactions of institution, organizations and individuals (Stam, 2017). Moreover, it says that organizations must create, share, and use knowledge so as to innovate. The theory adds that innovation is a process of continuous adaptation and learning (Stam, 2017). The theory also suggests that innovation is the process of leveraging knowledge and accumulation so as to create new processes, products, and services, (Chiesi & Manzini, 2016).

Knowledge is "the most strategically significant resource of a firm" (Wernerfelt, 1984). The author add that varied competences and knowledge foundations are the major determinants of firm performance because knowledge-based competencies are socially complex and often difficult to be copy. (Wernerfelt, 1984) added that knowledge is entrenched and inbuilt in different entities such as organizational identity and culture, routines, policies, systems, documents, and employees (Wernerfelt, 1984). This perception was originally promoted by the work of (Penrose, 1959) which laid its foundation from the RBV of a firm.

Despiet RBV recognizing that knowledge helps enhance competitive advantage, proponents of KBV claim that the resource-based perspective is not much far-fetched from the RBV. Here, knowledge takes broad resource as opposed one that with special characteristics by RBV. As such, it does not give a distinction of the different types of knowledge-based capabilities. Information technologies as stated by (Alavi & Leidner, 2001) can be vital in the Knowledge KBV postulates that firms can distinguish themselves based on their knowledge management strategies. This study uses the knowledge-based theory of innovation to inform the independent variable.

Organizational Learning Theory

The concept of organizational learning posits that learning and successful organizations have the capacity to learn sooner, better, and more quickly than their competitors and employ the learning in their working processes (Alavi, 2010). Organizational learning is said to date back to the late 1970s during which researchers focused on the concept from a psychological standpoint. The work of (Argyris & Schön, 1996) advanced the concept of single-loop and double-loop learning tenets. The

two scholars named single loop as "the processes by which mistakes are rectified by employing other strategies or processes calculated to produce different and successful outcomes". They explained that both single-loop and double-loop learning processes can be found in organizations. Single loop learning occurs when organizations identify faults, fix them, and proceed with their existing objectives and policies. Double loop learning is where organizations identify faults and alter their objectives and policies before adopting remedial action (Romero, 2014).

Moreover, organizational learning has also been defined as the actions of organization such as distributing information, acquiring knowledge, interpreting that information, and subconsciously or consciously maintaining a memory on the positive variations of the organization (Templeton, et 13 al., 2002). In terms of the learning function in relation to behavior change, organizational learning is a combined process that is tailored to support and protect organizational behavior change (Rodriguez, et al., 2003). This process entails the production of new knowledge, behaviour, and skills which supports an organization to accordingly adjust to new ways of operations. This process can be regarded as a dynamic process which includes creating, collecting and acquiring knowledge with the objective of developing both resources and capacity for improved organizational performance (Lopez, 2005).

Organizational learning can also be described process by which organizations learn (Chiva & Alegre, 2008). This entails every possible change to an organizational model which has the effect of either preserving or improving its operational performance. Organizational learning model by (Neef, 2001) is adopted as it is both modern and general. The measures consist of teamwork and learning, organizational learning culture, knowledge sharing, a common perspective, development of the staff's skills and competences, systemic thinking, and collaborative leadership (Neef, 2001).

Learning is viewed as a direct product of interaction (Argyris & Schön, 1996). The author held that organization learning is an outcome of organizational inquiry. They argued that for the time that the expected final results vary from the actual result, the organization or researcher will want to have an inquiry to determine source of inconsistency and develop a solution. In a single loop learning consists of one feedback loop once strategy is adjusted as response to an unexpected result (i.e., error correction). For instance, when there is a decline is sale, the marketing managers seek to final underlying reasons and make appropriate adjustments. They will then develop a strategy to increase sales. The double loop learning perspective is learning that occurs due to change in 'theory-of-use'. Accordingly, strategies, values, and assumptions that guide the undertaken action are altered in order to create a more efficient environment. The study uses organizational learning theory to inform the independent variable.

The Stakeholder Theory

This theory was initially postulated by (R. Freeman, 1984) and (Pearson & Mitroff, 2019). The theory was built on prior research in strategic management, corporate social responsibility, organizational theory, and systems theory. The stakeholder theory is a broad conceptual framework guiding organizational management and which addresses ethical and moral values of organizations. The theory posits that each firm's decision potentially affects the wellbeing not only of its

stockholders but also of its customers, employees, and the community. For this reason, businesses should promote the interest of all business stakeholders (Harrison & Wicks, 2013).

Stakeholders refer to all groups of entities which are affected by an organization's activities. (Miles, 2017) broadly classifies different multiple stakeholders into two groups of relevant and irrelevant. Relevant stakeholders are those that have invested in the business and as a result, are subject to some level of risk from the firm's activities. These are further categorized as voluntary and involuntary. Voluntary stakeholders are those that have chosen to deal with the firm. They include investors, employees, customers, suppliers, and shareholders who require value. Otherwise, they can impact the performance of the business through withdrawal of their stake if their interests are overlooked or not met.

On the other hand, involuntary stakeholders do not choose to have a relationship with the business, and as such so they require some form of protection (R. E. Freeman et al., 2010). This group includes individuals and communities. Involuntary stakeholders can impact firm performance by attracting legislation which affects the licenses of the business to operate. (Clarkson, 1995; Miles, 2017) classified stakeholders in terms of their legitimacy, power, and urgency. (D. Freeman et al., 2015) hold that the stakeholder approach is designed to provide a single strategic framework that is flexible enough to deal shifts in the environment without requiring managers to regularly adopt new strategic paradigms. In the Stakeholders theory, a firm can only be successful when it delivers value to its stakeholders. Such value can come in many forms on top of financial gain. This study uses the stakeholder theory to inform the dependent variable.

Empirical Review

This empirical review seeks to ground the study on past empirical research on the study variable. The review covers empirical studies on sensing capability, seizing capability, innovation capability, and learning capability and firm performance.

Sensing capabilities and performance

A study by (Nyachanchu et al., 2017) studied the role of sensing capability on the performance of manufacturing firms in Nairobi County, Kenya. The study focused on both financial and non-financial performance dimensions. An explanatory research design was used for the cross-sectional survey. Primary data was obtained from 271 out of 369 firms sampled from a population of 1,496 manufacturing firms in Nairobi County, Kenya, using a structured questionnaire instrument through drop and pick. The questionnaire was completed by the firms' CEOs. The hypotheses were tested using regression analysis results ($B=0.215$, $P<0.01$). The study concluded that deployment of dynamic capabilities has significant influence on firm performance. This result corroborated the findings by, among other studies, Osisioma et al, (2016), Li & Liu (2014), Woldesenbet, et al (2012), Karagouni et al, 2012 and Wu (2010). In their initial conceptual model, Gathungu & Mwangi (2012) highlighted that sensing capabilities were useful in the identification and assessment of opportunities.

(Mitronen & Kajalo, 2008) studied market sensing capability and business performance of retail entrepreneurs in Finland. The retail businesses focused on included small convenience stores, department stores, specialty stores and large hypermarkets. The study sample was 1170 K-retailers from the K-alliance. There were 247 completed surveys out of which 226 were satisfactory for analysis. The study thus carried a survey of 226 K-retailers in the Finnish K-alliance.

The conceptual model used was tested using structural equation modelling in order to determine the effect of market sensing capability on growth and profitability. The study found a weak positive correlation between market sensing capability and firm growth. However, the study found no relationship between market sensing capability and firm profitability. The study is useful in sensitizing practitioners on how to conceptualize and develop entrepreneurs' market sensing capabilities in the retail industry. The study highlights the moderating and independent variables of governance structures and store location as possible explanation for lack of positive correlation between market sensing capability and retailers' performance.

Another study (Sugiyarti & Ardyan, 2017) in Indonesia tested the effect of market sensing capabilities on market entry quality and marketing performance in emerging markets. The study focused on the batik industry located in Central Java province. Questionnaires were distributed to 350 batik SMEs in Central Java. The study used purposive sampling to establish with criteria such as minimum of five years of business operation, with a workforce of at least five people, and with a minimum capital of Rp.25,000,000. There were 200 returned questionnaires out of the 350 that were distributed. Having analyzed the normality, the data was fit to use with only 122 respondents. The study used structural equation modeling (SEM) for analysis. AMOS version 21 was used to process data. The findings showed that the product innovation advantage can improve market entry quality and market performance, the quality of market entry has significant and positive effect on marketing performance, and that the capability to market sense positively and significantly affect the quality of market entry, but there is no significant effect on marketing performance.
The limitation of this study include the fact that it used non ramdon sampling technique which affects the generaliability of its findings. The research was useful to management of SMEs to as it provides provide information to batik SMEs that marketing performance is not only influenced by the quality of market entry, but it is also influenced by product innovation advantage.

Seizing capabilities and performance

A study by (Nyachanchu et al., 2017) studied the role of sensing capability on the performance of manufacturing firms in Nairobi County, Kenya. The study focused on both financial and non-financial performance dimensions. An explanatory research design was used for the cross-sectional survey. Primary data was obtained from 271 out of 369 firms sampled from a population of 1,496 manufacturing firms in Nairobi County, Kenya, using a structured questionnaire instrument through drop and pick. The questionnaire was completed by the firms' CEOs. The hypotheses were tested using regression analysis results. The study found that seizing capabilities predict firm performance, which is in harmony with Pandza and Holt (2007).

(Adim & Asawo, 2021) studied the relationship between opportunity-seizing capability and corporate vitality of domestic airlines in Nigeria. This study used an explanatory cross sectional survey research design which was carried out at the firm level of analysis. The population of the study was all the nine operational and scheduled domestic airline operating in Nigeria. The study adopted the entire population as a census and the managers involved from the companies included Cabin Service Managers, Director of Airline Services, Station Managers, Regional Managers and Operation Managers. the Cronbach alpha was used to ascertain reliability of the instrument (with all items scoring above 0.70). The Spearman Rank Order Correlation Coefficient was utilized to establish the level of relationship as hypothesized with the aid of Statistical Package for Social Sciences v.23.0

The study findings showed a strong positive significant relationship between opportunity-seizing seizing capability and corporate vitality of domestic airlines in Nigeria. Thus, the study concluded that opportunity-seizing capability significantly related with corporate vitality and growth of domestic airlines in Nigeria. The study therefore recommended that there is need for domestic airlines managers to frequently acquire knowledge about their competitive and market trends from external sources so as to be able to identify and acquire external knowledge (such as market, customer trends) very quickly.

Innovation capabilities and performance

A study by (YuSheng & Ibrahim, 2020) investigated the effect of innovation adoption on the performance of firms in Ghana. The study data was obtained from 450 respondents that comprised firms' customers and employees Kumasi, Ghana. A confirmatory factor analysis, structural equation modeling and exploratory factor analysis were used to analyze the data using SPSS V.22. Empirical results showed that product, organizational, marketing, and process are the innovation dimensions that contribute to firms' innovation. The empirical results further showed that a direct and positive relationship between the four innovation dimensions and firms' performance. In addition, findings from this study showed a positive relationship between innovation capability and the four dimensions of innovation.

Moreover, the study findings revealed a positive and significant relationship between the dimensions of innovation and firm performance. This implied that choosing that choosing the appropriate innovation types can enhance both firms' performance and satisfy customer needs. The main limitation of the study was that it did not consider the non-financial performance of the firms it studied. The main contribution of this study is that it extended the existing literature of the adoption of innovation and firm performance in emerging markets.

Another study in Kenya (Mugambi & Kinyua, 2020) assessed the influence of innovation capability on the performance of small and medium size agrifood enterprises in Nairobi County in Nairobi City County. The study used descriptive research design. Self-administered questionnaires were used to collect data and analysis was done using SPSS. The study found that innovation capability significantly and positively affects performance. The study further revealed that innovation capability is an important requirement for the effective management of inventions and creativity

and the introduction of transformative technologies. The study recommended that firms should increase innovation capability on the back of digitization and increased competition. Moreover, it established that firms could adjust to meeting new market challenges and customer needs by easily and quickly adopting new innovations. Innovations also create new products and services. Overall, it found that innovation capability affects firms' performance as it determines a firm's effectiveness and productivity.

Learning capabilities and performance

A study by (Pham & Hoang, 2019) explored the relationship between organizational learning capability and business performance of Vietnam firms. The study focused on four dimensions of learning capability which include management commitment to learning, management commitment to learning, systems perspective, and knowledge transfer and integration. Data was collected from a survey of 160 Master of Business Administration Vietnamese students working in different firms. Data was analyzed using SPSS and AMOS. This study found a direct positive relationship between organizational learning and business performance. Moreover, the study found that that of the four dimensions of organizational learning, management commitment to learning is the most important factor and has the highest degree of positive effect on business performance. The shortcoming of this study is its focus on only non-financial measures of performance.

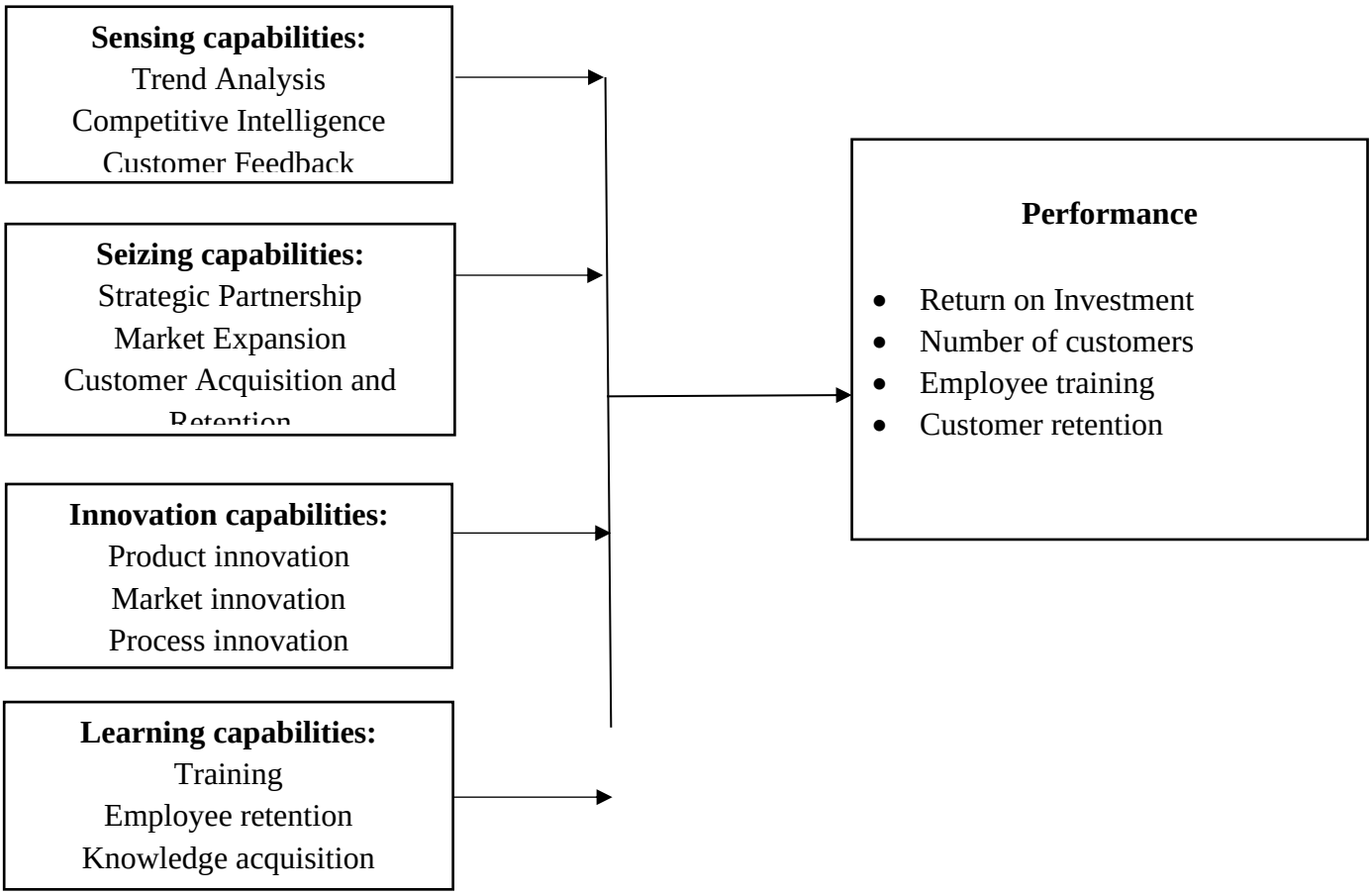
Another study in Spain by (Bustinza et al., 2018) focused on analyzing the relationship between organizational learning capability and performance as articulated through the influence of organizational learning capability on a firms processes and routines. The study found that learning capability is central to the design of organizational structures because it reconfigures a firm's operational routines and increases its adaptive capacity. The adaptive capacity represented in the form of operational flexibility was found to be an important source of competitive advantage which leads to improved firm performance. The limitation of the study was that it was of an exploratory nature which sought to reveal the existence or lack thereof of inter-relationships between the study variables. Additionally, all the firms involved in the study were in the service sector and one member per firm gave feedback.

(Orego & Wainaina, 2019) sought to establish the link between strategic organizational learning capability and firm performance of Tourism Fund in Kenya. The objectives of the study included determining the influence of organizational knowledge transfer, employee empowerment, organization's dialogue, and organization's risk taking on firm performance of Tourism Fund in Kenya. The study used descriptive and cross-sectional research designs. 63 respondents out of 75 targeted population were sampled encompassing managers and operational staff of the Tourism Fund head office in Nairobi. The study made use of descriptive statistics as well as inferential statistics for data analysis. The linear regression model was applied in inferential analysis. The study found that all the strategic organizational learning capabilities studied have a positive and significant influence on firm performance. Knowledge transfer and organization's dialogue were the key predictors of strategic organizational learning capability components that greatly influenced firm performance.

Conceptual framework

Independent variables **Dependent variable**

Dynamic capabilities:



Critique of the existing literature relevant to the study

Debate on firm performance is an ongoing one and its literature is incomplete. There is still lack of general consensus on the performance measurement and dimensionality of firm performance. Performance measurement's incredible diversity presents both opportunities and challenges owing to functional development of different careers (Neely, 2007). While firm performance remains an important management research construct, the lack of consensus and multi-dimensionality make it difficult for different generations of researchers to build on each other's work. Several studies have solely focused on financial performance leaving out non-financial performance.

Scholars have differed in terms of definition of dynamic capabilities. The ways in which firms' organizations generate and/or reconfigure dynamic capabilities is also an ongoing debate despite several studies that have been done. For instance, Winter (2003) argued that the dynamic capability hierarchy begins with operating capabilities or zero-level capabilities that allow firms to earn a living in the present. (Teece, 2009) held that new capabilities can be developed, and novel resource and capability combinations help to attain or sustain competitive advantage under conditions of

technological and market changes. Winter (2003) argued that the dynamic capability hierarchy begins with operating capabilities or zero-level capabilities that allow firms to earn a living in the present.

Dynamic capabilities assumes that firms can use different flexible models or plans for promotion of their success. This fails to consider the usefulness of formal plans in managing firms. Divergence in several studies indicates that dynamic capabilities concept and underlying operational processes are challenging to empirically measure. In support of this view, (Ambrosini & Bowman, 2009) argued It is also difficult to measure the routines and processes that are often idiosyncratic to firms or part of resource bundles.

While resources are important for firm performance, differences and concurrence both exist on its definition and how they influence performance. (Wang et al., 2015) views firms as bundles of resources. (M. A. Peteraf & Barney, 2003) initially held that superior performance comes from managing factors that are external to the firm. On the contrary, (Penrose, 1959) took an internal view of firms and argued that firm resources and their success were not dependent on the external environment. However, (M. A. Peteraf & Barney, 2003) later held that the critical determinants of firm Performance are the tangible and intangible assets resources owned by the firm. Earlier view by (Peteraf & Bergen, 1993) posited that central premise of the resource-based view is that firms compete based on their resources and capabilities. Nonetheless, several researchers (Barney, 1991; M. Peteraf, 1993; Wernerfelt, 1984) concur that firms with resources with VRIN attributes achieve superior performance.

Summary of reviewed literature

Dynamic capabilities have a direct effect on firm performance. The empirically reviewed studies showed that all the reviewed capabilities had direct positive influence on firm performance expect for a study by (Sugiyarti & Ardyan, 2017) on the effect of market sensing capabilities on market entry quality and marketing performance in emerging markets in Indonesia. The study found no significant effect of innovation capability on marketing performance.

(Eisenhardt & Martin, 2000) emphasizes that value creation and superior performance of a firm is affected by a combination of the competitive strategy and its resource base. (Teece et al., 1997 & Pisano, 2016) posits that firm performance depends on distinct processes shaped by asset positions and the evolution paths the firm has adopted or inherited, while (Teece, 2017) suggests that performance of a firm during periods of rapid change depends on its ability to sharpen its technological, organizational, and managerial processes.

Teece (2012) argues that sustainable performance comes from sharpening internal processes, structures, and procedures to generate innovations, be they technological or organizational. He further argued that the dynamic capabilities framework recognizes analytical functions which must be performed at the enterprise level to sustain success. (Harrison & Wicks 2013) holds that because each business's decision will potentially affect the well-being of not only its stockholders but also its employees, customers, and the community as a whole and therefore, businesses must promote

the interests of all stakeholders. Michael (2007) postulates that firm size is strongly dependent on several considerations, including market structure, level of competition and technological innovations.

Research gaps

Most businesses possess the dynamic capabilities that have been laid out in the RBV theory. Some of the resources have been acquired over a period while others have been from factor market. However, there are several changes in the business environments that necessitate attention into these resources especially on the ways in which they are acquired, built, and reconfigured in order to match the dynamic industry requirements. (Pisano, 2017) notes that because of this dynamic environment, firm managers are looking for strategies to enable their businesses to thrive.

While several studies have been done on the effect of dynamic capabilities on the performance of dynamic capabilities on the performance of manufacturing firms, few have focused on the role dynamic capabilities on performance of firms at sub-industry level. This study will take a deep focus on the food subsector and could help to reveal any potential commonalities and diversities in deploying dynamic capabilities across different sectors in an industry (Chemely et al., 2021). Moreover, while there is a multitude of answers to the question regarding the origin of dynamic capabilities, researchers often focus on single influences and rarely take the context of companies into account. This study will consider the specifics of the food industry sub-sector.

Moreover, scholars have also suggested that a cross industry analysis could potentially reveal commonalities and diversities in deploying dynamic capabilities across industries. This study will contribute to cross industry analysis by focusing on how firms in the food business created and use dynamic capabilities to influence their performance.

RESEARCH METHODOLOGY

According to Creswell and Clark (2017), research methodology describes how the study will be conducted. This chapter describes the methodological framework to be used to attain the stated objectives of the study. The focus of this chapter will be on the research design, type and sources of data, population description, sample size, sampling frame and its characteristics, sampling technique and a description of the choice of data collection instruments, questionnaire design and methods of data measurement. In addition, this chapter also discusses the procedure for conducting the research and how the findings are handled.

Research design

Research design is the organization of conditions necessary for the collection, measurement, and analysis of data (Kothari, 2009). It includes the formulation of hypotheses, operationalizing study variables, and ways of collecting and analyzing data (Cooper & Schindler, 2014). The study shall use descriptive research design. This approach was chosen as it is “carried out so as to ascertain and describe the characteristics of variables of interest in a given situation” (Sekaran, 2006).

Moreover, descriptive research describe the characteristics of a particular group or individual (Kothari, 2004). It is also an "organized empirical inquiry where the researcher does not have direct control of the independent variable since its manifestation has already taken place and this reduces the possibility of bias" (Bryaman & Bell, 2015).

Creswell and Clark (2017) regard research designs as plans and procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis. To achieve this, the study will undertake a descriptive survey research design, which is designed to obtain pertinent and precise information concerning the status of phenomena and whenever possible to draw valid general conclusion from the facts discovered. Descriptive survey attempts to describe characteristics of subjects or phenomena, opinions, attitudes, preferences, and perceptions of persons of interest to the study. Moreover, a descriptive survey aims at obtaining information from a representative selection of the population and from that sample the study can present the findings as being representative of the population (Mertens, 2014).

The design also depends on the principles of verifiability of proof, substantiation and confirmation utilizing the correct measurement of variables being studied. Descriptive research design also assumes that science seeks to determine facts with little consideration for subjective status of the individual (Nor, 2015). Gray (2019) notes that descriptive design was a systematic way of collecting numerical information and analyzing it using statistical procedures. The purpose of descriptive research is to determine and report the way things are and helps in establishing the current status of things and helps the study to observe, analyze and draw reliable findings. Descriptive study portrays an accurate profile of persons, events, or situation. Descriptive research design is one of the best methods for conducting research in human contexts, because of portraying accurate current facts through data collection for testing hypothesis or answering questions to conclude the study. A descriptive study is concerned with finding out what, where and how of a phenomenon (Lune & Berg, 2016).

It is able to establish association between variables by quantifying relationship between the variables using techniques such as correlations, relative frequencies or differences between means. Dawson (2019) noted that surveys could be used for explaining or exploring the existing status of two or more variables at a given point in time. Johnson and Christensen (2019) and Denzin (2017) similarly perceive a descriptive survey design as one that provides an investigator with quantitative and qualitative data.

The study will use a sample of the population of agrifood SMEs in Kenya from which the findings will later be generalized to the population. For all the reasons above, descriptive research was chosen to aid the researcher in achieving the research objectives by describing the data and characteristics of dynamic capabilities and performance of agrifood MSMEs.

Target Population

The target population for this study consists of 129 food SMEs based in Nairobi County and listed in Kenya Association of Manufacturer's (KAM) 2022-2023 edition directory under the Food and

Beverages sector. The 2022-2023 directory, as accessed in March 2023, is used as the unit of analysis. KAM's directory is an active source of names and addresses of manufacturers of food in Kenya. The association draws its membership from firms involved in manufacturing or value addition.

The study analysis will include SMEs that have been operational for at least three years, operate in the mid-section of the value chain, and fall in the UNIDO's classification of SME by employee size (Small 10-49, medium 50-249). The target respondents are the CEOs or directors of the agrifood SMEs. The CEOs are presumed to know their firm performance goals and actual achievement. They are better placed to make a balanced judgment of the different measurement scales used for dynamic capabilities and firm performance and the influence of dynamic capabilities on the performance of their businesses. For the purpose of this study the unit of analysis will be all the 129 food SMEs based in Nairobi County and listed in Kenya Association of Manufacturer's (KAM) 2022-2023. The unit of observation will include the CEOs or directors of the agrifood SMEs.

Sampling frame

The target respondents are the owners, CEOs, Senior Managers, or directors of the agrifood SMEs. These positions are presumed to know their firm performance goals and actual achievement. They are better placed to make a balanced judgment of the different measurement scales used for dynamic capabilities and firm performance and the influence of dynamic capabilities on the performance of their businesses.

Sample size and sampling technique

Sampling technique refers to all the systems and processes that a researcher uses to select the sample size from the population in order to be used in a study (Cooper & Schindler, 2014). The sampling unit refers to the specific element to be studied. The study adopts a random sampling method in order to identify appropriate sample size. A sample size of 96 was determined using the (Naing et al., 2006) formula for determining sample size from a finite population. The (Naing et al., 2006)formula is as below.

$$S = \frac{N.Z^2.p.q}{d^2.(N-1) + Z^2.p.q}$$

Where;

S = the sample size,

Z = Z statistic for the 95% confidence level,

p= proportion in the population estimated to have the target characteristics.

d = degree of accuracy /precision, which is also equal to 1-p.

129 food SMEs are the target, and the anticipated population was 50. A confidence level of 95% and a standard error of 5% are used in line with previous studies (Cohen et al., 2013).

$$S = \frac{129 \times 1.962 \times 0.5 \times 0.5}{0.05^2\,(129-1) + 1.96^2 \times 0.5 \times 0.5}$$

Sample size = 96

Sampling technique refers to all the systems and processes that a researcher uses to select the sample size from the population in order to be used in a study (Cooper & Schindler, 2014). The sampling unit refers to the specific element to be studied.

The target respondents are the CEOs or directors of the agrifood SMEs. The CEOs are presumed to know their firm performance goals and actual achievement. They are presumed to make a balanced judgment of the different measurement scales used for dynamic capabilities and firm performance. The list of food and beverage firms in the KAM 2022/2023 directory – and based within Nairobi – formed the sampling frame. The study shall adopt non-probabilistic sampling technique for selection of samples from the target population. Each member of the population had an equal probability of being selected. Systematic random sampling was used. This ensures that all the elements have an equal chance of selection. It provides statistical precision and ensures a representative sample across the entire population, with a smaller sampling error.

The KAM list of food businesses operating in Nairobi is in no particular order. The study picked the first listed firm and applied an interval in order to adopt a systematic random sampling (Mcneil & Frey, 2000).

Research Instruments

Primary and secondary data were collected. Structured questionnaires were used to collect primary data. Structured questionnaires as such that they require direct answers in an already prescribed format. As such, they allow for consistency of respondents' responses (Oso and Onen, 2006). Questionnaires are an appropriate data collection method because they provide the respondents with the individual ability to interpret and record the required information systematically (Fred & Howard, 2011).

Data collection procedure

Primary data was collected on dynamic capabilities, firm size and performance metrics using structured questionnaire. Closed ended questions were constructed on a 5-point Likert scale in order to allow for structured responses that facilitate quantitative analysis, test of study hypotheses and drawing inferences. Secondary data is obtained from review of published documents which include KIPPRA, KEPSA, KAM, government publications, and KNBS reports.

The questionnaires were administered to owners, senior management, or directors. These individuals are presumed by this study to have useful knowledge related to the study variables. The researcher will present an introductory letter and study approval to the businesses in order to enhance their support and assure confidentiality.

Pilot test

The goal of conducting pilot test is to increase the reliability, validity, and practicability of the questionnaire (Cohen et al., 2013) . Piloting involves the administration of the questionnaire to a number of respondents who are a representative of the target research sample and the subsequent

use of statistical analysis and feedback to reduce the number of items in the questionnaire into manageable number (Wadood et al., 2021).

The pilot test was conducted using SMEs not sampled out during the selection. A total of 10 questionnaires (10% of the sample size of 96) were issued to 10 people in order to test the ability of the instrument in enabling the researcher to achieve the desired objectives (Orodho, 2003). The results of the pilot will inform any necessary changes on the questionnaire before the actual study is conducted.

Reliability of instruments

The pilot data obtained from pilot test was analyzed to determine some aspects of statistics. For reliability, instruments were tested using the test-retest method where the questionnaire was administered twice to the sample respondents. The test re-test reliability estimates are obtained by correlating collected data with the data collected under the same conditions using the same questionnaire (Orodho, 2003). A reliability index was calculated to judge the instruments reliability using Cronchbach‘s alpha. Items are highly correlated among themselves if the coefficient of cronchbach alpha is high i.e. 0.7 and above (Cohen et al., 2013). This would imply the presence of consistency among the measured items. Higher test-re-test coefficient implies better test-re-test reliability and stability of measure in different times (Cohen et al., 2013).

Validity of instruments

The accuracy of the collected data captured was compared with what the instrument is averred to capture (Sekaran, 2011). Validity reflects the accuracy of the research data’s representation of the study variables. Content validity was ensured for this study by conducting doble-check. Verification of content validity of the questionnaire was done through expert suggestion and literature review was used to confirm that theoretical dimensions emerge and that the questionnaire covers all of the study focus variables (Cohen et al., 2013; Wadood et al., 2021). The study is also be informed by other related study’s instruments. Expert opinion will also be sought from the supervisor to carry out face validity.

Data processing and analysis

Data analysis was conducted in line with the research objectives. This shall include establishing the influence of dynamic capabilities on the performance of agrifood SMEs.

The first step was data preparation on completed questionnaires. This will include editing, data coding, entering, and cleaning on the completed questionnaires. This allows for complete, error-free and readable questionnaires. Coding will allow for categorization of answers in specific areas they will address research questions. The collected data will then be analyzed using both descriptive and inferential statistics. The data was quantitatively analyzed using SPSS software.

Descriptive statistics were used to both provide summary of survey data and summary statistics of the objectives. Regression analysis was used to investigate the relationship among the study variables. The study will use a multiple linear regression model below:

$Y = \beta^O + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4$

Where:

Y = SME performance

β_i = Beta coefficients (i = 0, 1,2,3,4)

X_1 = Sensing Capability

X_2 = Seizing Capability

X_3 = Innovation Capability

X_4 = Learning Capability

The coefficients were used to measure the effect of the independent variables (sensing, seizing, innovation and learning) on the dependent variable (Y). The significance of β's was used to test the corresponding hypotheses. To test the hypothesis, the below procedure was followed:

Table 1.1 Model

Objective	**Research question**	**Model**	**Results interpretation**
Objectives 1 to 4	Research question H_1 to H_4	$Y = \beta^O + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4$ Where: Y = SME performance β_i = Beta coefficients (i = 0, 1,2,3,4) X_1 = Sensing Capability X_2 = Seizing Capability X_3 = Reconfiguration Capability X_4 = Transformation Capability	Interpret based on F-values and βi.

RESEARCH FINDINGS AND DISCUSSION

This chapter looks at the findings of the research together with their discussions. Inferential and descriptive statistics have been employed in the analysis of data. Descriptive statistics such as frequencies, means, percentages, and inferential statistics like multiple regression and correlation were used. The study's main objective included the establishment of the relationship existing between dynamic capabilities and performance of small and medium agrifood enterprises in Nairobi County.

Response Rate

Ninety-six questionnaires were handed out to CEOs, Senior Managers, or directors of agrifood SMEs. From the 96 questionnaires distributed the study received 94 of them having been filled to

satisfactory levels. As shown in Table 4.1, the questionnaires returned added up to 97.7% response rate that was taken to be excellent. This is because according Mugenda and Mugenda (2013), research achieves a response good enough to proceed with when it attains a 50% response rate, sufficient when it is at 60% any response above 70% is considered excellent. The response rate of 97.7% is therefore considered to be excellent. The high response rate can be attributed to the university introductory letter and pre notification of potential respondents of the questionnaire through phone call.

Table 4.1: Response Rate

Questionnaire	Frequency	Percent
Returned	94	97.7
Un-returned	2	2.3
Total	**96**	**100.0**

Demographic Information

The study showed specific interest in their length of service in the organization and position in the organization.

Response on how long the business has been in operation.

Determining how long has the business been in operation helps the study to understand whether they can give useful information. Table 4.2 presents what was obtained by the findings. Most (38.3%) of the study's respondents say that the company- has been in operation for 3-5 years as indicated in Table 4.2, 32% say that the company has been in operation for 6-10 years and 12% had say that the company has been in operation for over 10.

Table 4.2: Response on how long the business has been in operation.

Years of Service	Frequency	Percent
Less than 3 years	17	17.7
3-5 years	36	38.3
6-10 years	30	32.0
Over 10 years	11	12.0
Total	**94**	**100.0**

Respondents Position in the Firm

Knowing the position of respondents in the firm enabled the researchers to know how well the respondents were well vast with the firm operations. Table 4.3 presents the results of the research. Most (23.2%) of the research participants selected for the study as shown in Table 4.3 were Senior Management, 22.4% were in Marketing and 21.6% were in finance. These results are evidence of varied levels of leadership in the organizations. All of them had obtained some skills through work that likely placed them in the position they were in their respective companies. Such respondents were therefore best to provide information on the influence of dynamic capabilities on the performance of small and medium size agrifood enterprises in Nairobi County (Omolo, 2018).

Table 4.3: Respondents position in the firm

Position in the Firms	Frequency	Percent
Finance	20	21.6
ICT	17	16.8
Senior Management	22	23.2
Marketing	21	22.4
Production	15	15.9
Total	**94**	**100.0**

Pilot Study Results

The research instrument was tested for validity and reliability. A sample of nine (9) questionnaires drawn from the owners, CEOs, Senior Managers, or directors of the agrifood SMEs were subjected to the pilot study. According to Creswell (2008), the rule of thumb is that 10% of the sample should constitute a pilot test.

Validity of Research instrument

Validity is the level to which an instrument measures what it purports to measure (Tracy, 2019). The validity reflects the extent to which the result of an observation is a true reflection of reality (Creswell, 2005; Pallant, 2011). The pilot study response was guided by content validity and construct validity.

Content validity is the extent to which the questions on the research instrument and the scores from these questions represent all possible questions that could be asked about the content (Creswell, 2005). It ensures that the questionnaire includes an adequate set of items that represent the concept. The more scale items represent the domain of the concept being measured, the greater the content validity (Shekharan & Bougie, 2015). The content of the questionnaire measurement items was taken from the conceptual framework (Mohajan, 2018). In this study, the questionnaire was reviewed by the supervisor. Unclear questions were reframed, some questions added, and others discarded. Content validity was also increased by studying questionnaires and questions used in similar studies.

Construct validity is the degree to which the scores on a test are related to the scores on another test, already established as valid, designed to measure the same construct. The study used factor loadings to determine internal consistency of the measurement items. A minimum factor loading of 0.4 was set to be achieved (Shekharan & Bougie, 2015). The following sections outline construct validities for various research variables.

Validity for sensing capabilities

To test for validities for sensing capabilities, the study used four (4) measurement items. The extracted factor loadings were as presented in table 2.3. The factor loadings for all the measurement items were above the minimum threshold hence all measurement items were accepted.

Table 4.4: Factor Loadings for Sensing capabilities Measurement items

Sensing capabilities measurement items	Initial	Extraction
We routinely analyze the business environment in order to find new business opportunities	1.000	.785
We routinely analyze the business environment in order to find new business threats	1.000	.855
We analyze possible impact of changes in our business environment on consumers on a regular basis	1.000	.614
We observe best practices in our markets	1.000	.731

Extraction Method: Principal Component Analysis.

Validity for seizing capabilities

To test construct validity of seizing capabilities, the five (5) measurement items were equally subjected to factor loadings. The study results were as shown in table 4.5 below. From the results, all the measurement items had factor loadings above the minimum threshold of 0.40 extracted, implying that they are sufficient measures for analysis.

Table 4:5 Factor Loadings for Seizing capabilities measurement items

Seizing capabilities measurement items	Initial	Extraction
We have documented procedures to create brand awareness.	1.000	.974
We teach our employees brand management techniques	1.000	.981
We always sponsor professional training for our employees	1.000	.801
We encourage employees to innovate new ways of doing their work	1.000	1.000
We have a sufficient budget for brand management	1.000	.981

Extraction Method: Principal Component Analysis

Validity for Innovation capabilities

To test construct validity of innovation capabilities, four (4) measurement items were subjected to factor loadings analysis. The study results were as shown in table 4.6. From the study results, all the measurement items had factor loadings above the minimum threshold of 0.40 extracted, implying that they are sufficient measures for analysis.

Table 4.6: Factor Loadings for Innovation capabilities measurement items

Innovation capabilities measurement items	Initial	Extraction
We frequently evaluate and update our efforts to produce new goods to ensure that they are in line with customers' desire	1.000	.955
We have the capabilities to effectively develop new knowledge or insights that have the potential to influence product development.	1.000	.979
We are effective in utilizing knowledge into new products.	1.000	.687
We are effective in developing new knowledge that has the potential to influence product development.	1.000	.978

Extraction Method: Principal Component Analysis.

Validity for learning capabilities

To test validity of learning capabilities, the variable was measured using five (5) measurement items. The factor loadings for the measurement items are as shown in table 4.7. From the results,

all the measurement items had factor loadings above the minimum threshold of 0.40 extracted, implying that they are sufficient measures for analysis.

Table 4.7: Factor Loadings for learning capabilities Measurement items

Learning capabilities Measurement items	Initial	Extraction
We regularly train our staff based on training needs assessment.	1.000	.832
We have effective routines to identify, value, assimilate, and impart new information and knowledge.	1.000	.791
Our business unit periodically circulates codified knowledge in form of documents (e.g., reports, newsletters) to update other departments.	1.000	.880
We are effective in transforming existing information into new knowledge.	1.000	.718
To what extent do agree that the above has contributed to improved performance.	1.000	.949

Extraction Method: Principal Component Analysis.

Validity for Performance of micro, small and medium size agrifood enterprises in Nairobi County

The performance of small and medium size agrifood enterprises in Nairobi County was measured using five (5) measurement items, which were subjected to factor loadings. The results were as presented in Table 4.8 below. From the results, all the measurement items had factor loadings above the minimum threshold of 0.40 extracted, implying that the performance measurement items are sufficient measures for analysis.

Table 4.8: Validity for Performance of small and medium size agrifood enterprises

Performance Measurement Items	Initial	Extraction
Increase in Return on Investment (ROI) in the last three or more years	1	0.721
Increase in sales revenue in the last three or more years	1	0.732
Growth in number of customers in the last three or more years	1	0.754
Growth in number of employees trained in the last three or more years	1	0.785
Improvement in employee retention in the last three or more years	1	0.716

Extraction Method: Principal Component Analysis.

Reliability of Research instrument

Cronbach Alpha was used to determine the reliability of the questionnaire. The overall Cronbach Alpha was 0.858 which was found to be very good and hence the research instrument was reliable for the current study. George and Mallery (as cited in Kimaku, Omwenga & Nzulwa, 2019) stated that the reliability of the constructs was acceptable based on the rule that when Cronbach's alpha value is greater than 0.9, it is considered excellent; when value is 0.8 is deemed very well and when it is 0.7, it is rated as good.

Table 4:9: Overall reliability coefficients (Cronbach Alpha) of the independent variables

Variables	Cronbach's Alpha	Number of Items	Conclusion
Sensing capabilities	0.852	4	Reliable
Seizing capabilities	0.877	5	Reliable
Innovation capabilities	0.726	4	Reliable
Learning capabilities	0.761	5	Reliable

Table 4:10: Overall reliability coefficients (Cronbach Alpha) for the dependent variable

S/No.	Variable	No. of Items	Cronbach Alpha Value
1	Performance of small and medium size agrifood enterprises in Nairobi County	5	0.869

Descriptive Analysis

In this section Likert scale questions are presented by the study where research participants were asked to give their opinion on several statements concerning influence of dynamic capabilities on the performance of small and medium size agrifood enterprises in Nairobi County. The research utilized a five-point Likert scale ranked as follows, 1 being strongly disagree, 2 being disagree, 3 being neither agree nor disagree, 4 being agree and 5 being strongly agree to the statements. The standard deviations and means employed in the interpretation of the findings where a mean value of 1-1.4 was strongly disagree, 1.5-2.4 disagree, 2.5-3.4 neither agree nor disagree, 3.5-4.4 agree and 4.5-5 strongly agree. Standard deviation measures the level to which the responses deviate from the mean. A standard deviation greater than two is considered to be large and suggests that respondents held varied opinions. On the other hand, when research participants had similar opinions a value of less than 2 was recorded.

Sensing Capabilities

The respondents provided feedback on sensing capability questions based on the Likert scale. On the statement “We routinely analyze the business environment in order to find new business opportunities” 5.6% of the respondents disagreed to the statement, 23.5% of the respondents neither agreed nor disagreed to the statement, 33.78% of the respondents agreed to the statement whereas 13.1% of the respondents strongly agreed to the statement, with a mean of 3.78 and standard deviation 0.739.

On the second statement "We routinely analyze the business environment in order to find new business threats?" 19.1% of the respondents neither agreed nor disagreed with the statement, 41.0% of the respondents agreed to the statement while 38.9% of the respondents strongly agreed to the statement, with a mean of 4.21 and standard deviation 0.741. On the statement "We analyze possible impact of changes in our business environment on consumers on a regular basis, 2.8% disagreed with the statement, 38.6% of the respondents neither agreed nor disagreed to the statement, 32.3% of the respondents agreed to the statement whereas 26.3% of the respondents strongly agreed to the statement, with a mean of 3.82 and standard deviation 0.885. Regarding the statement "We observe best practices in our markets", 13.1% strongly disagreed to the statement, 10.4% of the respondents disagreed to the statement, 23.9% of the respondents neither agreed nor disagreed to the statement, 35.5% of the respondents agreed to the statement whereas 17.1% of the respondents strongly agreed to the statement, with a mean of 3.33 and standard deviation 1.94. The findings are consistent with the assertion of Ali Sun and Ali (2017) that sensing capability enables the management team to have updated information about new products, services, and technology, which enables them to understand the changing market trends and customer demands. Moreover, the findings agree with those of Gathungu and Mwangi (2012) which concluded that sensing capabilities were useful in the identification and assessment of opportunities.

Table 4:11: Sensing Capabilities Frequencies

Sensing Capabilities	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean	Std. Dev.
We routinely analyse the business environment in order to find new business opportunities	-	5.6	23.5	94.8	13.1	3.78	.739
We routinely analyse the business environment in order to find new business threats	-	-	19.1	41.0	38.9	4.21	0.741
We analyse possible impact of changes in our business environment on consumers on a regular basis.	-	2.8	38.6	32.3	26.3	3.82	.885
We observe best practices in our markets.	13.1	10.4	23.9	35.5	17.1	3.33	1.94

Seizing capability

The respondents provided feedback on seizing capability questions based on the Likert scale. On the statement "We have documented procedures to create brand awareness" 15.1% strongly disagreed to the statement, 13.9% of the respondents disagreed to the statement, 35.5% of the respondents neither agreed nor disagreed to the statement, 24.7% of the respondents agreed to the statement whereas 10.8% of the respondents strongly agreed to the statement, with a mean of 3.02 and standard deviation 1.195.

On the statement "We teach our employees brand management techniques" 13.5% strongly disagreed to the statement, 8.8% of the respondents disagreed to the statement, 10.8% of the respondents neither agreed nor disagreed to the statement, 43.8% of the respondents agreed to the

statement whereas 24.1% of the respondents strongly agreed to the statement, with a mean of 3.54 and standard deviation 1.306. On the statement "We always sponsor professional training for our employees", 5.2% strongly disagreed to the statement, 23.9% of the respondents disagreed to the statement, 19.1% of the respondents neither agreed nor disagreed to the statement, 20.7% of the respondents agreed to the statement whereas 31.1% of the respondents strongly agreed to the statement, with a mean of 3.49 and standard deviation 1.291.

Regarding the statement "We encourage employees to innovate new ways of doing their work", 4.8% strongly disagreed to the statement, 15.9% of the respondents disagreed to the statement, 7.6% of the respondents neither agreed nor disagreed to the statement, 47.0% of the respondents agreed to the statement whereas 24.7% of the respondents strongly agreed to the statement, with a mean of 3.71 and standard deviation 1.145. On the statement "We have a sufficient budget for brand management" 4.8% strongly disagreed to the statement, 29.9% disagreed to the statement, 5.2% of the respondents neither agreed nor disagreed to the statement, 41.8% of the respondents agreed to the statement whereas 18.3% of the respondents strongly agreed to the statement, with a mean of 3.39 and standard deviation 1.223. These results show that agri-food enterprises recognize that seizing capability is needed for the development, strengthening positioning, and repairing brands as opined by Azizi, Morgan, Slotegraaf and Vorhies, (2019) and Movahed and Khah, (2019).

Table 4:12: Seizing capability Frequencies

Seizing capability	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean	Std. Dev.
We have documented procedures to create brand awareness.	15.1	13.9	35.5	24.7	10.8	3.02	1.195
We teach our employees brand management techniques.	13.5	8.8	10.8	43.8	24.1	3.54	1.306
We always sponsor professional training for our employees.	5.2	23.9	19.1	20.7	31.1	3.49	1.291
We encourage employees to innovate new ways of doing their work	4.8	15.9	7.6	47.0	24.7	3.71	1.145
We have a sufficient budget for brand management.	4.8	29.9	5.2	41.8	18.3	3.39	1.223

Innovation Capabilities

The respondents provided feedback on innovation capability questions based on the Likert scale. On the statement "We frequently evaluate and update our efforts to produce new goods to ensure that they are in line with customers' desire" 2.0% strongly disagreed to the statement, 2.8% of the respondents disagreed to the statement, 11.6% of the respondents neither agreed nor disagreed to the statement, 30.7% of the respondents agreed to the statement whereas 53.0% of the respondents strongly agreed to the statement, with a mean of 4.30 and standard deviation 0.922.

On the statement "We have the capabilities to effectively develop new knowledge or insights that have the potential to influence product development" 5.6% strongly disagreed to the statement,

7.2% of the respondents disagreed to the statement, 5.6% of the respondents neither agreed nor disagreed to the statement, 53.8% of the respondents agreed to the statement whereas 27.9% of the respondents strongly agreed to the statement, with a mean of 3.91 and standard deviation 1.058. On the statement "Action plans are collectively developed, 5.6% strongly disagreed to the statement, 27.1% of the respondents disagreed to the statement, 19.1% of the respondents neither agreed nor disagreed to the statement, 27.5% of the respondents agreed to the statement whereas 20.7% of the respondents strongly agreed to the statement, with a mean of 3.31 and standard deviation 1.229.

Regarding the statement "We are effective in utilizing knowledge into new products.", 10.4% strongly disagreed to the statement, 2.8% of the respondents disagreed to the statement, 19.1% of the respondents neither agreed nor disagreed to the statement, 41.8% of the respondents agreed to the statement whereas 25.9% of the respondents strongly agreed to the statement, with a mean of 3.70 and standard deviation 1.188. On the statement "Adequate resources are allocated for performance of tasks" 21.9% strongly disagreed to the statement, 29.1% of the respondents neither agreed nor disagreed to the statement, 39.0% of the respondents agreed to the statement whereas 10.0% of the respondents strongly agreed to the statement, with a mean of 3.15 and standard deviation 1.284.

On the statement "We are effective in developing new knowledge that has the potential to influence product development" 9.6% of the respondents neither agreed nor disagreed to the statement, 41.0% of the respondents agreed to the statement whereas 49.4% of the respondents strongly agreed to the statement, with a mean of 4.40 and standard deviation 0.658. On the statement "We have a sufficient budget for brand management" 2.8% strongly disagreed to the statement, 5.6% of the respondents disagreed to the statement, 47.8% of the respondents neither agreed nor disagreed to the statement, 29.5% of the respondents agreed to the statement whereas 14.3% of the respondents strongly agreed to the statement, with a mean of 3.47 and standard deviation 0.904.

Finally, on the statement "Stakeholders are sensitive to wastage when using of available resources" 7.6% strongly disagreed to the statement, 5.6% disagreed to the statement, 17.9% of the respondents neither agreed nor disagreed to the statement, 52.6% of the respondents agreed to the statement whereas 16.3% of the respondents strongly agreed to the statement, with a mean of 3.65 and standard deviation 1.061. The results reinforce the view held by Kale and Sigh, (2017) that innovation Capabilities requires a deliberate and conscious investment in training, education, and empowerment of SMEs to enable them to broker alliance relationships and convert those relationships into sources of knowledge transfer. The results further agree with study by Mugambi and Kinyua (2020) which established that firms could adjust to meeting new market challenges and customer needs by easily and quickly adopting new innovations.

Table 4:13: Innovation Capabilities Frequencies

Innovation Capabilities	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean	Std. Dev.
We frequently evaluate and update our efforts to produce new goods to ensure that they are in line with customers' desire.	2.0	2.8	11.6	30.7	53.0	4.30	0.922
We have the capabilities to effectively develop new knowledge or insights that have the potential to influence product development.	5.6	7.2	5.6	53.8	27.9	3.91	1.058
We are effective in utilizing knowledge into new products.	5.6	27.1	19.1	27.5	20.7	3.31	1.229
We are effective in developing new knowledge that has the potential to influence product development.	-	-	9.6	41.0	49.4	4.40	0.658

Learning capabilities

The respondents provided feedback on learning capability questions based on the Likert scale. On the statement "We regularly train our staff based on training needs assessment" 2.8% strongly disagreed to the statement, 2.0% of the respondents disagreed to the statement, 13.5% of the respondents neither agreed nor disagreed to the statement, 51.8% of the respondents agreed to the statement whereas 29.9% of the respondents strongly agreed to the statement, with a mean of 4.04 and standard deviation 0.875.

Regarding the statement "We have effective routines to identify, value, assimilate, and impart new information and knowledge", 8.0% strongly disagreed to the statement, 18.7% of the respondents disagreed to the statement, 16.3% of the respondents neither agreed nor disagreed to the statement, 51.8% of the respondents agreed to the statement whereas 5.2% of the respondents strongly agreed to the statement, with a mean of 3.27 and standard deviation 1.177. On the statement "Our business unit periodically circulates codified knowledge in form of documents (e.g., reports, newsletters) to update other departments", 2.8% strongly disagreed to the statement, 12.4% of the respondents neither agreed nor disagreed to the statement, 56.6% of the respondents agreed to the statement whereas 28.3% of the respondents strongly agreed to the statement, with a mean of 4.08 and standard deviation 0.809.

On the statement "We are effective in transforming existing information into new knowledge" 2.8% strongly disagreed to the statement, 25.5% of the respondents neither agreed nor disagreed to the statement, 94.8% of the respondents agreed to the statement whereas 13.9% of the respondents strongly agreed to the statement, with a mean of 3.80 and standard deviation 0.780. On the statement "To what extent do agree that the above has contributed to improved performance" 10.4% strongly disagreed to the statement, 14.3% of the respondents disagreed to the statement, 26.7% of the respondents neither agreed nor disagreed to the statement, 37.5% of the respondents agreed to the

statement whereas 11.2% of the respondents strongly agreed to the statement, with a mean of 3.25 and standard deviation 1.150.

The results show that management in agrifood small and medium size agrifood enterprises in Nairobi County supports the view of Jacobs and Washington (2018) that people development enables employees to perform better on their jobs which, in turn, enables the organization as a whole to perform better as well. The results also agree with the views of Bustinza 2018T that adaptive capacity in the form of operational flexibility was found to be an important source of competitive advantage which leads to improved firm performance.

Table 4:14: Learning capabilities Frequencies.

Learning capabilities	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean	Std. Dev.
We regularly train our staff based on training needs assessment	2.8	2.0	13.5	51.8	29.9	4.04	0.875
We have effective routines to identify, value, assimilate, and impart new information and knowledge	8.0	18.7	16.3	51.8	5.2	3.27	1.177
Our business unit periodically circulates codified knowledge in form of documents (e.g., reports, newsletters) to update other departments	2.8	-	12.4	56.6	28.3	4.08	0.809
We are effective in transforming existing information into new knowledge	2.8	-	25.5	94.8	13.9	3.80	0.780
To what extent do agree that the above has contributed to improved performance	10.4	14.3	26.7	37.5	11.2	3.25	1.150

Firm Performance

The respondents provided feedback on firm performance questions based on the Likert scale. On the statement "Increase in Return on Investment (ROI) in the last three or more years." 10.4% of the respondents neither agreed nor disagreed with the statement, 64.9% of the respondents agreed to the statement whereas 24.7% of the respondents strongly agreed to the statement, with a mean of 4.14 and standard deviation 0.946. On the statement "Increase in sales revenue in the last three or more years", 5.6% strongly disagreed to the statement, and 16.7% of the respondents neither agreed nor disagreed to the statement, 94.0% of the respondents agreed to the statement whereas 20.7% of the respondents strongly agreed to the statement, with a mean of 3.87 and standard deviation 0.929. The findings disagree with those of Mitronen & Kajalo, (2008) which found that there was no relationship between market sensing capability and firm profitability. They studied market sensing capability and business performance of retail entrepreneurs in Finland.

Regarding the statement "Growth in number of customers in the last three or more years", 2.0% strongly disagreed to the statement, 13.1% disagreed to the statement 21.5% of the respondents neither agreed nor disagreed to the statement, 49.4% of the respondents agreed to the statement whereas 13.9% of the respondents strongly agreed to the statement, with a mean of 3.60 and standard deviation 0.951. On the statement "Growth in number of employees trained in the last three or more years", 2.8% strongly disagreed to the statement, 12.4% of the respondents neither agreed nor disagreed to the statement, 40.6% of the respondents agreed to the statement whereas 44.2% of the respondents strongly agreed to the statement, with a mean of 4.24 and standard deviation 0.874.

On the statement "Improvement in employee retention in the last three or more years" 2.8% strongly disagreed to the statement, 22.7% of the respondents neither agreed nor disagreed to the statement, 47.0% of the respondents agreed to the statement whereas 27.5% of the respondents strongly agreed to the statement, with a mean of 3.96 and standard deviation 0.869. The results on functional competence generally show that respondent firms agree with the view of Doole et al. (2016) that with today's increasing competition, firms need enhanced competences to identify, create and deliver superior customer value.

Table 4:15: Firm Performance

Firm Performance	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean	Std. Dev.
Increase in Return on Investment (ROI) in the last three or more years.	-	-	10.4	64.9	24.7	4.14	0.946
Increase in sales revenue in the last three or more years	5.6	-	16.7	94.0	20.7	3.87	0.929
Growth in number of customers in the last three or more years	2.0	13.1	21.5	49.4	13.9	3.60	0.951
Growth in number of employees trained in the last three or more years.	2.8	-	12.4	40.6	44.2	4.24	0.874
Improvement in employee retention in the last three or more years.	2.8	-	22.7	47.0	27.5	3.96	0.869

Inferential Statistics

Both correlation and regression analyses were performed to find out the degree of relationship between the variables and the contribution of independent variables towards the dependent variable for correlation and regression respectively.

Correlation Analysis

Correlation analysis identified the existence or otherwise of relationship between dynamic capabilities on the performance of small and medium size agrifood enterprises in Nairobi County and all the other variables. Pearson Product Moment Correlation coefficient was used, the correlation coefficient (r) was used to establish whether there was linear relationship between the variables of interest in the study. The coefficient of determination (r^2) was used to check for

goodness-of-fit. The value of r ranges between -1 and +1, r = 0 implies no correlation, r = 1 means perfect correlation.

From Table 4.16 below, there was a positive and significant relationship between sensing capabilities and performance of small and medium size agrifood enterprises in Nairobi County (r = 0.653, p-value <0.001). The Pearson's correlation coefficient was 0.653, p-value <0.001. This implied that 65.3% of performance of small and medium size agrifood enterprises in Nairobi County in Kenya is explained by Sensing Capabilities. This outcome is corroborated by the study of Li and Liu (2014), Woldesenbet (2012) and Gathungu & Mwangi (2012) which held that sensing capabilities were useful in the identification and assessment of opportunities.

Likewise, the correlation coefficient between performance of small and medium size agrifood enterprises in Nairobi County and seizing capability was 0.700 and p-value < 0.001 respectively, implying a high positive significant relationship between the two variables, implying that 70.0% of performance of small and medium size agrifood enterprises in Nairobi County in Kenya is explained by seizing capability. The findings are concurrent with those of Adim and Asawo (2021) which investigated relationship between opportunity-seizing capability and corporate vitality of domestic airlines in Nigeria, and which held that opportunity-seizing capability significantly related with corporate vitality and growth of domestic airlines in Nigeria.

Moreover, the outcome in Table 4.16 show there was a strong positive significant relationship between performance of small and medium size agrifood enterprises in Nairobi County and Innovation Capabilities, with a Pearson's correlation coefficient of 0.763 and a p-value<0.001, implying that 76.3% of performance of small and medium size agrifood enterprises in Nairobi County in Kenya is explained by Innovation Capabilities. This outcome agrees with the findings of Mugambi and Kinyua (2020) which concluded that innovation capability is an important requirement for the effective management of inventions and creativity and the introduction of transformative technologies.

Between performance of small and medium size agrifood enterprises in Nairobi County and Learning capabilities the Pearson's correlation coefficient was 0.800 and a p-value <0.001, which implied a strong positive significant relationship. The results imply that 80.0% of performance of small and medium size agrifood enterprises in Nairobi County in Kenya is explained by learning capabilities. These findings are concurrent with those of Orego and Wainaina (2019) which sought to establish the link between strategic organizational learning capability and firm performance of Tourism Fund in Kenya. Their study found that all the strategic organizational learning capabilities studied have a positive and significant influence on firm performance.

Table 4:16: Correlation matrix for performance of small and medium size agrifood enterprises in Nairobi County' variable

Correlations

		Y	X_1	X_2	X_3	X_4
Y	Pearson Correlation	1	.653**	.763**	.800**	.700**
	Sig. (2-tailed)		0	0	0	0
	N	94	94	94	94	94

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

Correlation analysis for Sensing Capabilities

Table 4.17 below shows that there were strong positive significant relationships between Sensing Capabilities and all other independent variables. The correlation coefficients were 0.598, 0.780, and 0.617 all with p-values less than 0.001.

Table 4:17: Correlation matrix for Sensing Capabilities variable

Correlations

		Y	X_1	X_2	X_3	X_4
X_1	Pearson Correlation	.653**	1	.598**	.780**	.617**
	Sig. (2-tailed)	0		0	0	0
	N	94	94	94	94	94

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

Correlation analysis for seizing capability

Table 4.18 below shows that there were strong positive significant relationships between Seizing capability variable and Sensing Capabilities, Innovation Capabilities, Learning capabilities and Seizing capability. The correlation coefficients were 0.617, 0.872, 0.760, and 0.841, all with p-values less than 0.001. This implied that 61.7% of seizing capability was explained by Sensing Capabilities, 87.2% of seizing capability was explained by Innovation Capabilities.

Table 4:18: Correlation matrix for seizing capability variable

Correlations

		Y	X_1	X_2	X_3	X_4
X_2	Pearson Correlation	.700**	.617**	1	.760**	.872**
	Sig. (2-tailed)	0	0	0	0	
	N	94	94	94	94	94

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

Correlation analysis for Innovation Capabilities

Table 4.19 below shows that there were strong positive significant relationships between Innovation Capabilities and Sensing capabilities, learning capabilities, and seizing capability. The correlation coefficients were 0.598, 0.804, 0.872, and 0.817, all with p-values less than 0.001.

Table 4:19: Correlation matrix for Innovation Capabilities variable

Correlations

		Y	X_1	X_2	X_3	X_4
X_3	Pearson Correlation	.763**	.598**	.804**	1	.760**
	Sig. (2-tailed)	0	0		0	0
	N	94	94	94	94	94

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

Correlation analysis for learning capabilities

From table 4.20 below, it is shown that there were strong positive significant relationships between Learning capabilities variable and Sensing Capabilities, Innovation Capabilities, Seizing capability. The correlation coefficients were 0.780, 0.804, and 0.760 all with p-values less than 0.001. This implied that 78.0% of learning capabilities was explained by Sensing Capabilities, 80.4% of learning capabilities was explained by Innovation Capabilities, and 76.0% of learning capabilities was explained by seizing capability.

Table 4:20: Correlation matrix for learning capabilities variable

Correlations

		Y	X_1	X_2	X_3	X_4
X_4	Pearson Correlation	.800**	.780**	.804**	.760**	1
	Sig. (2-tailed)	0	0	0		0
	N	94	94	94	94	94

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

Correlation analysis for seizing capability

Table 4.20 below shows that there were strong positive significant relationships between Seizing capability variable and Sensing Capabilities, Innovation Capabilities, Learning capabilities and Seizing capability. The correlation coefficients were 0.617, 0.872, 0.760, and 0.841, all with p-values less than 0.001. This implied that 61.7% of seizing capability was explained by Sensing Capabilities, 87.2% of seizing capability was explained by Innovation Capabilities.

Table 4:20: Correlation matrix for seizing capability variable

Correlations

		Y	X_1	X_2	X_3	X_4
X_4	Pearson Correlation	.700**	.617**	.872**	.760**	1
	Sig. (2-tailed)	0	0	0	0	
	N	94	94	94	94	94

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

Summarized correlations for all variables

Table 4.21 below depicts a summary of correlations of all the variables.

Table 4:21: Correlation matrix of all independent variables

Correlations

		Y	X_1	X_2	X_3	X_4
Y	Pearson Correlation	1	.653**	.763**	.800**	.700**
	Sig. (2-tailed)		0	0	0	0
	N	94	94	94	94	94
X_1	Pearson Correlation	.653**	1	.598**	.780**	.617**
	Sig. (2-tailed)	0		0	0	0
	N	94	94	94	94	94
X_2	Pearson Correlation	.763**	.598**	1	.804**	.872**
	Sig. (2-tailed)	0	0		0	0
	N	94	94	94	94	94
X_3	Pearson Correlation	.800**	.780**	.804**	1	.760**
	Sig. (2-tailed)	0	0	0		0
	N	94	94	94	94	94
X_4	Pearson Correlation	.700**	.617**	.872**	.760**	1
	Sig. (2-tailed)	0	0	0	0	
	N	94	94	94	94	94

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

Diagnostic Tests

Before conducting regression analysis computation, the research tested whether assumptions of regression analysis were met by the data. The data was therefore tested for assumption violations of linearity and normality, multicollinearity, and autocorrelation.

Normality Test

In this research, an investigation for normality was done using the Shapiro-Wilk test at 5% significance level. The null hypothesis for Shapiro Wilk test was that the population is normally distributed; since there was enough evidence that the data was normally distributed.

From the results in Table 4.22, all the variables contained p-values higher than 0.05. This allowed the study to proceed with the null hypothesis and make a conclusion that the data was fit for inferential statistics using regression analysis and was obtained from a normal population, i.e., the normality assumption was met.

Table 4.22: Shapiro-Wilk Test of Normality

	Shapiro-Wilk		
	Statistic	Df	Sig.
Sensing Capabilities	.794	94	.256
Seizing capability	.671	94	.213
Innovation capabilities	.850	94	.240
Learning capabilities	.833	94	.215
Performance of small and medium size agrifood enterprises in Nairobi County	.770	94	.311

Autocorrelation

The study checked for autocorrelation utilizing Durbin-Watson test in linear regression model. Durbin-Watson's test's hypothesis is that the residuals are not linearly auto correlated. The d value has a range of 0 to 4, in case the d values are $1.5 < d < 2.5$ it shows the lack of data autocorrelation. Findings presented in Table 4.23 show that no autocorrelation was observed in the data.

Table 4.23: Durbin-Watson Autocorrelation Test

Model	Durbin-Watson
1	2.228

Multicollinearity

Variance Inflation Factor (VIF) proved useful in testing multicollinearity. If VIF is greater than 5 but below 10, this indicates moderate presence of multicollinearity. When VIF is greater or equal to 10, this shows high multicollinearity. Table 4.24 shows the results.

From the findings, the VIF values for the four independent variables were below than 10, an indication multicollinearity was present, but it was not severe. Therefore, regression analysis can be computed because there is no severe multicollinearity observed.

Table 4.24: Multicollinearity Assumption

	Collinearity Statistics	
	Tolerance	VIF
Sensing Capabilities	.139	7.173
Seizing capability	.190	5.268
Innovation capabilities	.188	5.319
Learning capabilities	.146	6.834

Multiple Regression Analysis

To determine how dynamic capabilities affect firm performance, the study computed multiple regression analysis. The results were placed on three tables presented and discussed in coming subsections.

Model Summary

The amount of dependent variable variation attributed to the behaviour of the independent variables was determined by computing a model summary. This study measured variation in firm performance as a result of changes in sensing capabilities, seizing capabilities, innovation capabilities and learning capabilities.

According to the results presented in Table 4.25, the value of R square is 0.877. This shows that 87.7% difference in agrifood small and medium size enterprises performance can be explained by these changes in sensing capabilities, seizing capability, innovation capabilities and learning capabilities. The remaining 12.3% suggests other factors exist that are helpful in explaining variation in performance of small and medium size agrifood enterprises in Nairobi County excluded in this study.

Table 4.25: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.936[a]	.877	.868	.09467

a. Predictors: (Constant), Learning capabilities, Seizing capability, Sensing Capabilities, Innovation capabilities

Analysis of Variance

Variance analysis shows the developed model's significance. In this research, the model significance was tested at significance level of five percent. From the findings in Table 4.26, the significance of 0.000 is below the chosen significance level of 0.05, meaning it can be considered significant. These results prove that the F-calculated value (92.716) was above the F-critical value ($F_{4,90}$=.308) which insinuates that the variables, sensing capabilities, seizing capabilities, innovation capabilities and learning capabilities can be used to predict firm performance and also confirms the importance of the model.

Table 4.26: Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.233	4	.308	92.716	.000[b]
	Residual	.173	90	.003		
	Total	1.406	94			

a. Dependent Variable: Performance of small and medium size agrifood enterprises in Nairobi County

b. Predictors: (Constant), Learning capabilities, Seizing capability, Sensing Capabilities, Innovation capabilities

Regression Coefficients of the Study Variables

This regression equation model was used to fit the regression coefficient.

$Y= \beta 0+ \beta_1X_1+\beta_2X_2+ \beta_3X_3+ \beta_4X_4+ \varepsilon.$

Where:

Y= Firm Performance,

β_0= constant (coefficient of intercept),

X_1= Sensing capability

X_2= Seizing capability

X_3= Innovation capability

X_4= Learning capability

ε = error term.

From the findings presented in Table 4.27 below, the following regression equation was fitted.

Multiple regression

$Y= 1.347 + 0.347 X_1 + 0.196 X_2+ 0.338 X_3+ 0.279 X_4$

Observing the equations, it can be noted that when all the other variables (sensing capabilities, seizing capability, innovation capabilities and learning capabilities) remained at constant zero, a constant value of 1.347 was held by the performance of small and medium agri-food SMEs in Nairobi County.

The results depict sensing capabilities significantly impacted performance of small and medium size agrifood enterprises (β=0.347, p=0.001). These results insinuate that sensing capabilities significantly influences firm performance in a positive way. Meaning, a unit rise in sensing capabilities leads to a rise in firm performance, by 0.347 units.

Seizing capability has great effect on performance of small and medium size agrifood enterprises in Nairobi County (β=0.196, p=0.041). The outcomes went ahead to suggest that seizing capability have positive influence on financial well being. These results show that Seizing capability positively and significantly influence firm performance. Meaning, a unit rise in seizing capability will leads to a rise in performance of small and medium size agrifood enterprises by 0.196 units. The findings disagree with Innovation Capabilities has an influence on performance of small and medium size agrifood enterprises in Nairobi County (β=0.338, p=0.018). The studies also revealed that decision-making procedures on investment had a desirable impact on performance of small and medium size

agrifood enterprises in Nairobi County. These findings imply that investing decision-making procedures exhibit a favourable impact on Performance of small and medium size agrifood enterprises in Nairobi County. As a result, a unit increase in Innovation capabilities processes leads to a 0.338 unit rise in the Firm Performance. The study's findings accord with Mweresa (2018) that investment in manufacturing has a huge effect on a company's Performance of small and medium size agrifood enterprises in Nairobi County.

The study found that Learning capabilities has an influence on performance of small and medium size agrifood enterprises in Nairobi County (β=0.279, p=0.013). As a result, a unit rise in learning capabilities leads to a 0.279 unit rise in the performance of small and medium size agrifood enterprises in Nairobi County. The study's findings support Maki's (2018) finding that there is a positive significant relationship between performance of small and medium size agrifood enterprises in Nairobi County and learning capabilities. The findings additionally concur with the findings of Orego and Wainaina (2019) which found that all the strategic organizational learning capabilities studied had a positive and significant influence on firm performance. The study had sought to establish the link between strategic organizational learning capability and firm performance of Tourism Fund in Kenya

Table 4.27: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.347	0.258		5.221	.000
	Sensing Capabilities	0.347	0.103	0.439	3.369	.001
	Seizing capability	0.196	0.077	0.226	2.545	.041
	Innovation capabilities	0.338	0.138	0.402	2.449	.018
	Learning capabilities	0.279	0.108	0.327	2.583	.013
a. Dependent Variable: Firm Performance						

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter includes a summary of the main findings, conclusions deduced from the findings and recommendations. The conclusions and recommendations given address the study's main objective.

Summary of Findings

This section gives a summary of results as per specific objectives of study. The specific study's objectives were to establish the influence of sensing capabilities, seizing capabilities, innovation capabilities and learning capabilities on the performance of small and medium agrifood enterprises in Nairobi County. Findings of the research showed that majority of the respondents previously worked in other enterprises and firms by 94% that indicated that it gave the first experience to perform their duties effectively thus satisfying the firms objectives while 6% of the respondents indicated that they had neither worked in any other enterprise nor firms before, therefore their enterprises were their first institutions of work.

Sensing Capabilities

The study concludes that sensing capabilities influences the performance of small and medium size agrifood enterprises in Nairobi County. This implies that good sensing capabilities has a direct impact on the level of performance by small and medium size agrifood enterprises in Nairobi County. It also implies that the employees in the overall direction, planning, the training of staff on sensing capabilities and the allocation of resources for planning process positively affects the realization of performance of small and medium size agrifood enterprises in Nairobi County. This is an indication that there is a positive relationship between effective design and the performance of small and medium size agrifood enterprises in Nairobi County. Hodgkinson and Sparrow, (2006); Dubey & Ali (2018), Agha, Alrubaiee & Jamhour, (2012); Özbağ, (2013); Jabbouri & Jahaz, (2014), Ayub & Odero (2017) Bahri &Yahya, (2015) that Sensing Capabilities has a significant effect on performance. The findings of the study disagreed with those of Nguyen, (2008) who showed that competence does not have a significant effect on firm performance.

Seizing capability

The study sought to establish the effect of seizing capability on the performance of small and medium size agrifood enterprises in Nairobi County. The research findings showed that there was a positive significant effect of seizing capability on the performance of small and medium size agrifood enterprises in Nairobi County. This implied that good Seizing capability inform better performance of small and medium size agrifood enterprises in Nairobi County. In line with the competence-based theory and Teece (2019), seizing capability that do not create non-imitable products are not core, do not give the firm sustainable performance.

Innovation Capabilities

The study sought to establish the effect of innovation capability on the performance of small and medium size agrifood enterprises in Nairobi County. The study concludes that innovation capability influences the performance of small and medium size agrifood enterprises in Nairobi County. This implies that good innovation capabilities have a direct impact on the achievement of desired performance of small and medium size agrifood enterprises in Nairobi County. Azak (2017) found that innovation brings unique products, and this can only be made when the firm possesses highly specialized skills and equipment. They enable firms to develop a unique position in relation to Competitors and to consistently outperform them (Azak, 2017).

Learning capabilities

The study sought to establish the effect of learning capability on the performance of small and medium size agrifood enterprises in Nairobi County. From this study, learning capabilities are hugely significant in influencing the performance of small and medium size agrifood enterprises in Nairobi County. Effective learning capabilities in most enterprises have visions and missions which are widely shared throughout the organization, this was established to impact significantly on the

various aspects of performance like it contributes to return on investment. Effective strategic leaders acquire employees with adequate requisite skills and establish the workflow charts and service delivery chatters and allocate resources to different business portfolios in data informed approach increase their performance. When strategic leaders emphasize ethical values in service delivery that seek to take care of the customer's satisfaction and be responsible for the environment and public safety, the performance of their organizations increases. It is established that all factors that held constant learning capabilities account for huge percentage of the organization performance. Because of disruptive competition that is brought about by learning new techniques characteristic of today's business environment, organizations are counting more on their core competences to secure their financial situations and their market positions (Hamel & Prahalad, 2020). Firm strategy in small and medium agrifood enterprises in Nairobi County is, therefore, shifting focus from competing for product or service leadership to competing in firm competence leadership.

Conclusion

This research project has examined the influence of dynamic capabilities on the performance of small and medium agri-food enterprises in Nairobi City County. The study has identified several procedures and routines that contribute to the development of these skills. In general, despite variations between companies, small and medium agri-food enterprises have a significant potential to compete with larger companies if they possess established dynamic skills that enable them to provide value-added products and services. The ability to identify opportunities and, more importantly, effectively utilize dynamic skills to take advantage of those opportunities is crucial for small and medium agrifood enterprises to differentiate to deliver high-value, knowledge-intensive goods, and services.

Recommendations

On sensing, the study recommends that the properties of small and medium agrifood enterprises routinely analyze their business environment for new business opportunities and threats. Moreover, agrifood enterprises should regularly analyze the possible impact of changes in their business environment on consumers on a regular basis and seek to observe best practices in markets they serve. Small and medium sized agrifood enterprise owners must systematically assess market developments and incorporate this information into their business operations to detect current and future market trends, anticipate demand fluctuations, and explore new business opportunities Conducting research is essential for these purposes.

On seizing capability, the study recommends that firms should be prepared to take advantage of opportunities for improving firm performance. This should include having a sufficient budget for brand management and sponsoring professional training of employees. Senior management should ensure that there are documented procedures for creating brand awareness. Businesses should also consider their risk detection patterns, decision-making processes in terms of speed and quality, and their ability to adapt structures, processes, and systems.

On innovation, the study recommends that enterprise's owners should also ensure that there is ongoing development of new knowledge or insights that have the potential to influence product development. Agrifood enterprises should also regularly produce new goods to ensure that they are in line with customers' desires and changing preferences. To ensure improved performance, the study additionally recommends that agrifood enterprises in Nairobi should ensure that there is effectiveness in development of new knowledge that has the potential to influence product development. On learning, the study recommends that senior managers and owners of small and medium-sized agrifood enterprises in Nairobi County should ensure that regular staff training needs assessments are conducted. There should be a budget set aside to support employee learning based on needs assessment that support improved firm performance. Agrifood enterprises should also put in place effective routines to identify, value, assimilate, and impart new information and knowledge in order to be effective in transforming existing information into new knowledge.
Resources and capabilities are typically found within businesses, making it crucial to identify and determine which resources are relevant for achieving improved performance. Small and medium-sized enterprise (SME) owners must systematically assess market developments and incorporate this information into their business operations to detect current and future market trends, anticipate demand fluctuations, and explore new business opportunities. Conducting research is essential for these purposes.

When formulating public policies to support SME growth, different capability configurations identified in this study and the aspirations of business owners should be considered. A "one-size-fits-all" approach to public policy is inappropriate for company growth, considering the limited resources of most SMEs. Public policies need to adapt their programs and support for agrifood to accommodate this diversity. Targeted public policies and support measures can enhance the responsiveness of SMEs and make these interventions more effective and profitable. Each company's dynamic capabilities are unique, and how agrifood enterprise owners employ sensing, seizing, learning and innovation capabilities vary. Developing dynamic competencies that align with their growth objectives is crucial for entrepreneurial managers and owners.

Suggestions for further research

The study focused on the influence of dynamic capabilities on the performance of small and medium sized agrifood enterprises in Nairobi City County; hence the generalizability of the findings is limited. As such, future studies should consider including more counties in their sample. In the same light, future research should consider exploring the link between dynamic capabilities and firm performance in the context of larger enterprises. The study utilized a descriptive cross-sectional design, which is limited in detecting causal effects between variables. There is thus a need for researchers to understand the underlying causal mechanisms by which dynamic capabilities affect firm performance. The study was conducted in Nairobi County and hence further research should be conducted focusing on other Kenyan Counties. The study also focused on the agrifood sector. More studies on other food sub-sectors are required in order to compare potential sub-sector differences in the influence of dynamic capabilities on firm performance.

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