

**DYNAMIC CAPABILITIES AND PERFORMANCE OF THE SMALL AND
MEDIUM ENTERPRISES IN THE MANUFACTURING SECTOR IN
NAIROBI CITY COUNTY, KENYA**

BY:

SOPHIA NAFULA WAMALWA

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DECLARATION

This research project is my original work and has not been presented for a degree in any other university.

Signature.....

Date.....21st November 2022.....

SOPHIA NAFULA WAMALWA

REG NO.D61/76294/2012

This research project has been submitted for examinations with my approval as the university supervisor.

Signed.....

Date.....22nd November 2022

Dr. Florence K. Muindi. Ph. D

Faculty of Business and Management Sciences

University of Nairobi

DEDICATION

I dedicate this Project to my Parents Mr. David Wamalwa and Mrs. Efrance Galenda and my siblings for their prayers and encouragement throughout this journey.

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I wish to acknowledge and appreciate my Supervisor Dr. Florence K. Muindi. Ph.D for the advice, guidance, patience and encouragement while writing the Project.

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LIST OF ABBREVIATIONS AND ACRONYMS

AMOS	Analysis of Moment Structures
ANOVA	Analysis of Variance
COVID-19	Coronavirus disease
GDP	Gross Domestic Product
KAM	Kenya Association of Manufacturers
KEPSA,	Kenya Private Sector Alliance
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KNBS	Kenya National Bureau of Standards
KRISP	Kenya Rising Star and Scale-up Programme
SME	Small and medium-sized businesses
SPSS	Statistical Package for Social Sciences
VRIN	Valuable, Rare, Inimitable and Non-Substitutable

ABSTRACT

Within the last decade, more and more researchers have asserted that a company's strategy and the generation of value revolve around its dynamic capabilities. Small and medium-sized Enterprises (SMEs) help Kenya's economy grow and develop. However, there has been significant impact from the COVID-19 epidemic on the global, regional, and local economies and the consequences of the pandemic are felt most strongly by small and medium-sized enterprises (SMEs). This research aimed to establish the relationship between dynamic capabilities and the performance of Kenya's SMEs in manufacturing industry in Nairobi City County. A review of the institutional theory and the dynamic capacity theory, which combine the internal and external talents and reconfigure to handle changing settings on performance of SMEs, served as the study's main sources of inspiration. Cross-sectional descriptive survey was employed in the study. 30000 licensed small and medium-sized manufacturing enterprises in Nairobi city were the study's target demographic. Using the formulas from Krejcie & Morgan (1970), the research sample size of 264 was established. This study employed a closed-ended questionnaire to collect data. The study results showed that human resource expertise and training is important to the performance of manufacturing sector of small and medium enterprises since performance are dependent on the personnel qualification employed to carry out the task. The adoption of technology and innovation within the organization has enabled creation of new products in the market. Despite the fact that organization conducts regular research on the best market practices in order to improve its internal processes most of the SMEs do not have a designated research department that carries out the role. Due to competency and quality of production realized through dynamic capability, performance of the small and medium enterprises has significantly improved and managers rarely receive complaints from customers on their products. The study recommends to the managers of small and medium enterprises to employ staff based on their qualification. The study also recommends to the county government information communication technology department and associated ministry of trade to support the innovative technologies that assist small and medium-sized businesses expand.

CHAPTER ONE

INTRODUCTION

1.1 Background

Performance encompasses not only past accomplishments, but also the capacity to attain future objectives successfully (Cho, & Lee, 2018). Dynamic capabilities describe how organizations adjust their fundamental resources and skills to respond to a dynamic environment. Internal and external competences of an organization's performance are integrated, built upon, and reconfigured via dynamic capabilities (Bojesson, & Fundin, 2020). Dynamic capabilities involve both explicit processes and those implicit aspects entrenched inside the process, and they have both a direct and indirect effect on a company's performance and competitive advantage. According to Hammerschmidt, Eggers, Kraus, Jones, & Filser, (2020), Performance is an objective fact that can be judged in both an objective and a subjective way. Dynamic talents have an indirect and direct impact on organizational success. The indirect effect on performance is obtained by reconfiguring the resource base, which can be done by constructing, extending, and altering the resource base. These reconfigurations are intended to improve organizational performance. Performance is directly impacted by dynamic capabilities since they are expensive to build, maintain, and employ.

Although some argue that a dynamic capability might give an organization an edge over the competition and performance, others disagree (Baia, & Ferreira, 2019). DiinFitri, Dahlan and Sukardi (2018), all of whom endorse the resource-based theory of the firm, argue that a company's resources are only strategically important if they are valuable, rare, imperfectly imitable, and not replaceable (VRIN-criteria). Sangwa and Muvunyi (2021) believe that the so-called VRIN-criteria is an important part of dynamic capabilities. Nayak, Chia, and Canales (2020) have a different point of view. Apparently, there is a recommended procedure for utilizing dynamic capabilities, and all businesses can benefit from adopting this procedure. Although dynamic talents are path-dependent and thus individual in nature (Collis & Anand, 2019), they are nonetheless valuable to a company, they may have some things in common across firms, but their effectiveness may vary. Also, dynamic capabilities don't always lead to better performance because they create value in

indirect ways, like by changing the way a company uses its resources. So, a dynamic ability may seem useless in one situation when the result of the re-configuration wasn't what was expected, but it may be useful in another (Sangwa, & Muvunyi, 2021).

The dynamic capability theory by Teece (2018) and the institutional theory by Meyer and Rowan (1977) served as the study's main theoretical foundations (Najeeb, 2014). The Dynamic Capability Theory focuses on endogenous factors, such as a company's resources, competencies, and capabilities, which are seen as sources of competitive advantage that come from within the company which leads to an improvement in performance. This Theory further says that the success of the firm depends on things like past experiences, organizational culture, and skills (Liyanage, 2017). A novel method for examining social, financial, and geopolitical dynamics is introduced by institutional theory. Within a civilization, institutions create the rules that govern the game. Traditional sociological ideas are being built upon by new institutional insights (Scott, 2020). These new discoveries stress the significance of the operational institutional framework, which is thought to influence businesses and entrepreneurial behavior.

In Kenya's manufacturing sector, small and medium-sized businesses (SME) have gained recognition over the years for the value they offer in terms of increased competition, innovation, job creation, GDP growth, industrial development, and more the end, help reduce poverty. Kenya's vision 2030, a plan for development that aims to make Kenya by 2030, a fully industrialized, middle-income state where all citizens enjoy a good standard of living, emphasizes the important role of SME. SMEs have been identified and put at the top of the list as important growth drivers for reaching the goals of Vision 2030. Even though SMEs account for close to 85% of all jobs, they only make up about 20% of the total GDP. While they account for the vast majority of Kenya's workers, Kenya's small and medium-sized firms (SMEs) make just a small contribution to the country's GDP (Cheruiyot, & Tarus, 2017). Therefore, research into the effects of dynamic capacities on the success of SMEs in this industry and their ability to increase their overall GDP contribution is warranted.

1.1.1. Dynamic Capabilities

The concept of dynamic capabilities investigates how skills evolve through time as well as how organizations adapt to such changes in the environment (Banerjee, Farooq, & Upadhyaya, 2018). The word "dynamic" is used to distinguish between two types of abilities, such as the operational capacity to modify how the company creates new goods and to invest in research and development (Oroh, 2020). Changing business capabilities is techniques for producing products in the future, whereas "dynamic capability" is the capacity to alter such procedures. 'Dynamic capabilities' don't have anything to do with making a good or providing a service that can be sold, so they don't directly affect how much a company makes (De Silva, Al-Tabbaa, & Khan, 2021). By incorporating, reorganizing, obtaining, and releasing resources in reaction to environmental changes, they have an indirect impact on the manufacturing process or make changes inside and outside the company (Baia, & Ferreira, 2019). A dynamic capability is an organization's ability to make changes within itself or to respond to changes in the outside world (Wilden, & Gudergan, 2015). This is done by rearranging (making new, adding to, and changing) the organizational resource base (Inan, & Bititci, 2015). Firms may have different ways of showing dynamic capabilities that can be used to change their marketing, sales, customer linking, and service capabilities, among other things. By changing how these operational capabilities are set up, dynamic capabilities can help create a sustainable competitive advantage and can be used to make indirect rent (Inan, & Bititci, 2015). An organization's resource-base includes its dynamic capacities.

According to the dynamic capability view of the firm, a company's performance can come from its resources (i.e., the things it uses to make and sell goods and service delivery) and its internal operations like capacity to its skills, learning, and knowledge of how to use its resources (Dagnino, Picone, & Ferrigno, 2021). To be so, they must be valuable, rare, unique, and impossible to replace (Banerjee, Farooq, & Upadhyaya, 2018). Dynamic processes have been added to the idea of a theory of the firm based on research on the resource-based perspective (Banerjee et al., 2018). This led to a line of research that focused on dynamic capabilities, which, along with operational capabilities, make up organizational capabilities but don't directly lead to the creation of a product (Dagnino et al., 2021).

Practices that foster the development of dynamic capacities are critical for a company's ability to undergo change, as stated by Kumar, Ramanan, and Keelath (2020). To succeed, businesses must possess, put to use, and enhance their competencies (Kumar et al., 2020). In order for businesses to adapt to changing conditions, effective corporate and business strategies are required (Joshi, Kathuria, & Das, 2019).

1.1.2. Organizational Performance

Researchers still disagree on how to define and measure organizational performance, even though it's a common topic in management research (Khashman, &Khashman, 2016). Karanja (2014) said that performance is the same as an activity's economy, efficiency, and effectiveness. Khashman and Khashman (2016) said that organizational performance is how well and efficiently an organization can reach its goals with the resources it has. Organizational performance is the level of capitalization of a company on opportunities by maximizing its strengths and compensating for its deficiencies and getting rid of its threats. Organization performance has also been looked at from three different angles: the goals approach, the resource approach, and the systems approach (Jaiswal, 2014).

Organizational performance is the discrepancy between what an organization actually performs and what it intends to do (i.e., its goals and objectives) (Kosgei, &Gitau, 2016). According to Khan, Ali, Olya, Zulqarnain, and Khan (2018), there are three techniques to assess performance of the organization: Product market performance and financial performance are two success indicators. Efficacy in workplace requires professionals' diversity for strategic planning, operations; finance, law, and organizational development all have an interest in the effectiveness of organizations.

Many businesses have adopted the balanced scorecard approach to performance management in recent years. All aspects of an organization, including its financial performance, customer service, social responsibility, employee stewardship, performance, measurement systems, improvement, and organizational engineering, are tracked and analyzed. It can be difficult to acquire a decent measure of performance if just monetary factors are considered, rather than less tangible ones like environmental sustainability and social fairness (Mehralian, Nazari, Nooriparto, & Rasekh, 2017).

1.1.3 Small and Medium Enterprises of Manufacturing Sector in Nairobi

According to Vidic and Vadjal (2013), SMEs are often classified based on their employee count or total asset value. The wealth and availability of a region or country determines how it is categorized relative to others. The MSE Act of 2012 defines a small and medium-sized enterprise (SME) as one with 100 or less full-time employees. In Kenya, the Kenya Association of Manufacturers represents manufacturing SMEs and advocates for policies that foster entrepreneurship and the growth of small and medium-sized enterprises (SMEs). This is important for the future of the industry. On its website, www.kam.co.ke, the Kenya Association of Manufacturers says that its goal is to provide strategic leadership to help small and medium-sized manufacturing businesses become more competitive on a global scale.

The President of Kenya was honored in 2016 by the Kenya Private Sector Alliance program called "Kenya Rising Star and Scale-up Programme (KRISP)." The plan was approved. Its goals are to get more people to start businesses, grow the number of homegrown SMEs that can compete globally, grow the number of SMEs with high growth and new ideas, improve the productivity of Kenyan SMEs, and make it easier for SMEs to become formalized in Kenya. SME development helps manufacturing SMEs that want to grow and are ready to sell their products on the market. Its goal is to help businesses get ready, grow, and expand so they can capitalize on the emergence of new markets, both domestically and internationally. It further helps small and medium-sized manufacturers in Kenya become more competitive, develops an entrepreneurial spirit and improve their performance.

1.2 Research Problem

Within the last decade, more and more researchers have asserted that a company's strategy and the generation of value revolve around its dynamic capabilities (Breznik, & Hisrich, 2014). They have made theoretical arguments about what they are and how they affect how well a company does. According to Teece (2018), there is still vague claims and interpretations that no evidence to support them to this day. Many experts have doubts about the proposed functions and theories of dynamic capacities. Also, dynamic capabilities are redundant unspecific and ineffective (Barney, KetchenJr, & Wright, 2014). Research on dynamic capacities has primarily centered on their

effects on organizational performance since the foundational work by Teece et al. (1997). There is yet no definitive answer to the question of whether or not they have any bearing on performance (Mehralian et al., 2017).

Small and medium-sized Enterprises (SMEs) help Kenya's economy grow and develop. Research shows that over 80% of businesses in Kenya are small and medium-sized enterprises (SMEs). SMEs create jobs, add to the GDP, help industries grow, meet local demand for services, come up with new ideas, and provide supply inputs and services to huge corporations. There has been significant impact from the COVID-19 epidemic on the global, regional, and local economies and the consequences of the pandemic are felt most strongly by small and medium-sized enterprises (SMEs). This is because official methods to combat the pandemic include instituting social isolation and lockdowns. The economic and social impacts of pandemics like this one are often felt most keenly by small and medium-sized enterprises (SMEs). Small and medium-sized enterprises (SMEs) in the manufacturing sector face all of these challenges, which is why it's crucial to first pinpoint the relevant dynamic capabilities, and then refine, update, and employ them to maximum effect.

Prior research has focused on dynamic capabilities and performance, as well as core capabilities, strategy implementation, and corporate performance (Schilke, 2014). (Awino, 2007). Other researchers have looked at the industrial sector's dynamic capacities, as well as how they express and impact it (Awino, 2007; Magutu, 2013; Murgor, 2014; & Mwazumbo, 2016). These have mostly concentrated on the major manufacturing companies, excluding the SME's within the manufacturing sector as an area that has not yet been dug into. Consequently, this creates the information vacuum that this study aims to fill: what is the link between dynamic capacities and the success of small and medium-sized enterprise firms in Nairobi's manufacturing sector?

1.3 Research Objectives

The purpose of this research was to establish the relationship between dynamic capabilities and the performance of Kenya's SMEs in manufacturing industry in Nairobi City County.

1.4 Value of the Study

Small and medium-sized manufacturers, investors, company management, and boards will all benefit from this study's conclusions. And further, it will demonstrate how to structure your operations to succeed in a dynamic setting throughout the short to medium term.

The results of this study can be used to supplement literature reviews of related studies, making it useful for academics such as teachers, researchers, and students.

Ultimately, the study's findings will help policymakers like KEPSA, KIPPRA, the government, and others come up with plans to make the sector more competitive, productive, and grow.

This study will indeed add to what is known about dynamic capabilities, how they show up, and how they affect things. It will also show where more research needs to be done.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The subject of this chapter is the study's literature review on how dynamic capabilities affect organizational performance.

2.2 Theoretical Foundation

Reviewing the dynamic capacity theory and the institutional theory of the company served as the foundation for this investigation.

2.2.1 Dynamic Capability Theory

David Teece and Gary Pisano developed the theory of dynamic capacities in 1994. Internal and external skills can be integrated, built, and reconfigured to address dynamic contexts, according to the theory of dynamic capacities. To adapt to new circumstances, a company needs the ability to "integrate, build, and reconfigure internal and external skills," as stated by Kurtz and Varvakis (2016). Dynamic Capabilities Theory concept stands, the degree of environmental uncertainty may be more relevant than the rate of environmental change. Maintaining "evolutionary fitness" over time rather than short-term efficiency is the focus of evolutionary management (Teece, 2018). To achieve this goal, the organization must be prepared to promptly and effectively react to both threats and opportunities in the marketplace (Teece, 2018). In 1959, Penrose made the observation that businesses are a primary source of creative thinking. Penrose's explanation of how a company grows, on the other hand, includes managerial learning in the discovery and use of the untapped potential of existing resources. He also says that this leads to the creation or adoption of new resources, but he doesn't explain how this is done. In other words, dynamic abilities are taken for granted instead of being looked at and explained.

The lowest level of a capability's hierarchy is occupied by ordinary capabilities. Currently, these are the activities that make use of the company's personnel, infrastructure, and resources to keep

the firm running smoothly. Even if the current production plan is unlikely to function in the future, a corporation with strong ordinary capabilities can nevertheless achieve best-practice levels of efficiency. The system as a whole may be influenced by management's treatment of seemingly mundane abilities. If operational tasks are always optimized for efficiency, they may lose their adaptability. Ericsson lost an estimated US\$400 million in 2000 when a lightning strike closed a semiconductor facility in New Mexico for weeks (Latour, 2001). However, Nokia's supply chain team, which also utilized the factory, improvised a workaround that allowed production to continue as scheduled.

Following "macro foundations" is the level of skills known as "micro foundations" (Teece, 2018). These are more basic dynamic skills, such as the ability to create new goods or establish relationships with other businesses. Consisting of procedures that are employed less frequently than those of standard capabilities, exceptional ones are a subset of those procedures. The majority of these practices are one-of-a-kind. Simple resources can be merged, reorganized, added, or removed from the company's use with the help of micro-foundations (Matarazzo, Penco, Profumo, & Quaglia, 2021).

In order to maintain external fitness, higher-level dynamic capabilities are necessary. These capabilities include things like activities and evaluations that draw on other capabilities and resources. Sensing, seizing, and changing are three interrelated sets of entrepreneurial activities that occur simultaneously across the entire firm. Management decisions and organizational processes are both part of this (Augier & Teece, 2009; Teece, 2018).

Scanning the surrounding environment is an example of a sensing activity that integrates unstructured data and information from the outside world into the framework of the enterprise. The system must allow for crucial data to reach the locations where it may be assessed and handled appropriately. Spreading a common vision and decentralizing authority are crucial to the success of any intra-organizational network. Using internal and external data sources, the top management team can prioritize issues and identify opportunities in the company's environment.

2.2.2 Institutional Theory

John Meyer and Brian Rowan created the institutional theory in 1977. In their groundbreaking research on the social, commercial, and political realities of organizational businesses, Meyer and Rowan present a novel methodology. Within society, institutions create the rules of the game (Kostova, Roth, & Dacin, 2018). These regulations apply to both official and informal institutions, such as the government, the corporate sector, and the extended family. The classic sociological theories are being built upon by new institutional insights of business corporations (Thornton, 2019). These novel discoveries stress the significance of the operational institutional backdrop, which is thought to influence the how businesses and entrepreneurs act.

The institutional theory aims to explain how formal organizational structures, such as written regulations, accepted practices, and new organizational forms, get adopted and propagated (David, Tolbert, & Boghossian, 2019). In his definition of an institution, Scott (2020) listed three crucial traits. First off, institutions are highly resilient social systems. As a result, it can resist social dangers and adapt. Second, institutions are made up of normative, cognitive, and regulatory components. Third, institutions provide social life structure and purpose. The society in which we live would be in shambles without institutions because neither people nor organizations could adjust to the ambiguity of their surroundings. Additionally, Scott defines each component of institutions in order to provide more information about them.

For entrepreneurs, the institutional framework may lower expenses, volatility, and risks when it is functioning well. The simplicity of joining markets and the impact of bankruptcy rules are also determined by legal frameworks. On the other hand, a weak or inadequate legal system can prevent progress. In particular, this may result in corruption and unbiased business behavior if institutional loopholes allow for arbitrary action (Aeeni, Motavaseli, Sakhdari, & Saeedikiya, 2019). Additionally, institutional restrictions lead to the emergence of informal interactions, such as local networks (Webb, Khoury, & Hitt, 2020). As a result, entrepreneurship can flourish while being illegal (Webb et al., 2020).

Given that it supports dynamic capacities and their effectiveness on corporate operations, institutional theory is crucial to this subject. In addition, institutional theory has drawn more

attention in entrepreneurship research, however most of these studies are conducted in industrialized nations. In contrast, new settings are taking center stage in research that is driven by institutional theory. The majority of this kind of study has shown parts of the market and government failure of nations, allowing space for various sorts of entrepreneurs to operate (Littlewood, & Holt, 2018). Ageing infrastructure, static-centric systems, government control over property ownership and the private sector, restricted information access, and cumbersome processes for launching new businesses are a few examples (Kuijpers, & Eijdenberg, 2021). Although it would be impractical to speak with every entrepreneur in a nation, efforts have been made to get their firsthand accounts of running businesses in developing environments (Abdallah, & Eijdenberg, 2019). By hearing these tales, the connection between the large and the small is forged, bringing to life entrepreneurial endeavors in the world's underrepresented scientific fields.

2.3 Dynamic Capability and Organizational Performance

The capacity of an organization to proactively develop, expand, and modify its resources is known as its "dynamic capability" (Wang, & Kim, 2017). While organizational performance is how well and efficiently an organization can reach its goals with the resources it has (Cicek, & Bilal, 2016). How quickly and effectively a company can align and re-align its distinctive resources with the company's strategy depends on the depth and breadth of its dynamic capabilities. Changes in operational capabilities and the financial performance of businesses

have been the primary foci of research into the dynamic capabilities and organizational performance. There was a school of thinking that concluded dynamic capabilities were directly related to performance. This viewpoint is supported by a number of empirical researches (Cicek, & Bilal, 2016); these studies demonstrate a correlation between the authors' concept of "dynamic capabilities" and performance. Different people have various conceptions of what constitutes success when it comes to measuring it with performance indicators. Several studies examine economic performance, while others examine inventive or technological performance, environmental performance, or international performance (Cicek, & Bilal, 2016).

Kodama (2017) found that it's hard for a dynamic capability to change or grow on its own, but it's easy for one dynamic capability to change or grow another dynamic capability. For example, a

dynamic capability for learning often helps to change or grow other dynamic and operational capabilities. They said that the capability lifecycle gives dynamic resource-based theory a framework for a more complete way of looking at things. Organizational capabilities can vary widely, and this research helps shed light on why that is the case by considering the genesis, development, and maturity of capabilities. The research concludes that an appreciation for how resources and skills evolve through time is essential for a dynamic resource-based perspective.

Lin and Wu's (2014) research on the effects of dynamic capabilities on enhanced performance utilized a resource-based perspective. According to their research, there is a link between the two. In addition, it was discovered that resources that are expensive, scarce, difficult to reproduce, and irreplaceable are crucial in the growth of dynamic capabilities. This study shows that firms can improve their performance by getting more resources and becoming more flexible.

Laaksonen and Peltoniemi (2018) said that dynamic capabilities can be used to add to, change, or make new normal capabilities. The next step, logically, is to create a hierarchy of higher-order skills. Also strategic substance of capabilities is the patterning of activities. The expensive investments are usually needed to create and maintain product development. Organizations don't need to rely on anything termed "dynamic capability" to make adjustments. This is achieved by resorting to "ad hoc problem solutions." Investment costs and rewards relative to ad hoc issue resolution, as well as the "level of the game" at which strategic rivalry is most effective, all have a role in determining whether or not higher-order capabilities are developed.

Kitenga, Kilika and Muchemi (2020) looked at large manufacturing firms' organizational resources, dynamic capabilities, environmental change, and organizational performance. A study showed that organizational resources have a big effect on sales growth, return on sales, and return on gearing from a financial point of view. However, the study shows that organizational resources don't have a big effect on return on equity. Sales growth, return on sales growth, return on sales, and return on gearing all have a moderately weak relationship with organizational performance.

In another study, Kiarie (2019) looked at the State Bank of Mauritius, Kenya, to find out about its dynamic capabilities, organizational culture, and performance. The goal of the study was to find out if there might be an effect on the performance of the bank and its ability to sense and change.

So, the study showed that these capabilities have a clear effect on how well a bank does its job. Organizational culture's moderating effect has also shown that there is a link between dynamic skills and how well a company does.

2.4 Empirical Studies and Research Gaps

Leal-Millan and Cepeda-Carrion (2016) investigated the efficacy of institutions supporting small and medium-sized businesses in Spain. This study set out to ascertain how the performance of small and medium-sized businesses was impacted by sensing capabilities. The study used positivism as its research philosophy and a cross-sectional research design as its technique. The results of the study showed that in Spain, small and medium-sized corporate institutions perform significantly and favorably when sensing capabilities are present. Studies demonstrate that sensing skills are appropriate for businesses functioning in unexpected and dynamic situations that force them to constantly update their procedures. Institutions supporting small and medium-sized businesses should spend more on networking, innovation, training, and research.

According to Ardyan (2016), the performance of SME's is influenced by sensing capability, new product development success and speed to market, and entrepreneurial attitude. Cross-sectional research design was applied in the study. In this study, 168 SME owners or managers in Java, Indonesia, served as the sample. In order to test hypotheses in this study, structural equation modeling was employed, and AMOS 21 (IBM SPSS) was used to analyze the data. The findings of this study showed that while entrepreneurial approach has a little impact on product innovation, sensing capability has a big impact on speed to market and product innovation. Nevertheless, a SME's performance is positively and significantly impacted by its entrepreneurial attitude and the success of its product innovations, but not much by its ability to sense the market or its speed to market. Because the study primarily examined the managers of the businesses and ignored the opinions of other employees, its conclusions were constrained by insufficient data.

In the United States of America, medium-sized businesses institutions were evaluated by Girod and Whittington (2017) for their ability to restructure, firm performance, and reconfiguration capabilities. According to the study's conclusions, a corporation must reassemble and reorganize its assets and organizational structures as economies and technology evolve in order to continue

sustainable development. Resources and knowledge may deteriorate with time, which may prevent the accumulation of advantages from earlier experiences. According to critics, dynamic capacity not only helps businesses preserve their evolutionary fitness but also gives them the option to break free from undesirable route dependence when required.

Fores and Camison (2016) linked between dynamic capabilities and small and medium firms in South Africa. The study's research design was a cross-sectional survey. The Karl Pearson correlation model, which ranges between 0.768 and 0.880, shows that operational capacity and institutional performance have a very significant positive link. According to the study's findings, operational capacity and performance are positively correlated. The research on the operational skills of small and medium-sized businesses should, however, spend more money on R&D to prepare for the constantly shifting external environment.

Hassan, Mei, and Johari (2017) looked at how operational dynamic capacities affect the relationship between intellectual capital and performance of small- and medium-sized company institutions in Malaysia. As its technique, the study used a descriptive research approach. Results of the study demonstrated how operational dynamic skills affect organizational effectiveness. Aspects of intangible resources, such as people, institutional, and capital employed, can provide a substantial amount of input to modernize operational capabilities, thereby enhancing the performance of SMEs. The study narrowed its attention to intellectual capital and its capacities alone, failing to yield results on other aspects that pertain to dynamic capabilities like technological advances.

In 2016, Ramanathan, Ramanathan, and Zhang conducted research on the effects of diversification strategy, environmental capability, and operations capability on the performance of small- and medium-sized enterprise institutions in the United Kingdom. Cross-sectional research design was used in the study. The study's conclusions demonstrated how operational skills allow small and medium-sized business organizations to consistently perform an activity, using essentially the same approach on the same scale to support current goods and services for the same target market. Only two small and medium-sized business organizations were employed in the study, and there was little data and dependability for the conclusions to be generalized.

Additionally, there has been much discussion on the results and ramifications of dynamic capacities, particularly in relation to market competitiveness and business success. According to Matarazzo et al. (2021), "dynamic capacities" serve as "the underpinning of enterprise-level success in regimes of fast (technical) change." Matarazzo also breaks down dynamic skills into their component parts, highlighting those "necessary to maintain great organizational performance" in a highly variable environment.

Eisenhardt and Martin (2000) have extremely different perspectives on dynamic capabilities; they proof of equality in the conclusion and assert that they are the gold standard. They contend that a corporation cannot surpass its competitors due to its dynamic capacities for this reason. In response, Teece (2018) claims that while best practices won't help performance either, they won't be enough to provide dynamic capabilities. Zollo and Winter (2002) adopt a more unbiased stance, stating just that dynamic capacities are "in pursuit of enhanced efficacy." Different individuals have different ideas about what dynamic talents are, what they look like, and what kind of influence they will have on the world.

Kitenga, Kilika, and Muchemi (2020) examined the corporate resources, dynamic capacities, and organizational performance of big manufacturing enterprises. According to a research, organizational resources have a significant financial impact on the increase of sales, return on sales, and return on investment. Organizational resources, however, don't appear to have much of an impact on earnings per share, according to the research. The link between sales growth, revenue on expansion, and profitability is relatively shaky.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Methods for doing the research are discussed here. Methodology, sample size calculations, statistical analyses, data collection methods and data analysis are all detailed.

3.2 Research Design

A cross-sectional, descriptive survey was used to plan the study. In a cross-sectional study, the study population is visited just once to get a big picture of how a situation or phenomenon is at a certain point in time (Kumar, 2019). A descriptive survey tells what is going on as it is, without changing any of the variables (Nyamwange, 2016). It's an effort to learn about a population's state in regard to some variable or factors by collecting data from its members (Asenahabi, 2019).

The design is good for this study because it lets researchers find out how two or more variables are at a certain point in time and is easy to give to a large number of respondents. It also lets you count, compare, and explain the opinions of a larger number of respondents (Kothari, 2017). These characteristics will make it easier to gather the quantitative data needed to address the primary study topic of how dynamic capabilities relate to SMEs in Nairobi's manufacturing sector.

3.3 Population of the Study

All small and medium-sized enterprise (SME) in Nairobi that manufacture products were the focus of this study. According to the Kenya National Bureau of Standards (KNBS) 2021 survey, there are over 30000 licensed small and medium-sized businesses in the manufacturing sector in Nairobi city. The researcher chose Nairobi because it is the center of all economic activity and has a wide range of economic sectors. This means that it is a better example for this study.

3.3.1 Sample Size

Bell, Brown, and Mitchell (2019) claim that the topic of a sample size is a certain population. The formulas from Krejcie & Morgan (1970) were used for this investigation to determine the sample size of study; at confidence level of 95% and a margin error of .03 is accepted since it is a common choice, and a response distribution at 50% as explained by Omair (2014). Since the SMEs target population is over 30000, the sample size from Krejcie & Morgan (1970) formulae calculation is 264 respondents with a margin of error=.03.

The sample size will be calculated using
$$n = \frac{\chi^2 NP(1-P)}{d^2(N-1) + \chi^2 P(1-P)} \dots \dots \dots \text{Equation 3.1}$$

Where:

s = required sample size.

χ^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.8416) ($\chi=1.96$).

N = the population size (30000).

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (.06).

$$n = \frac{3.8416 * 30000 * .50(1-.5)}{.06^2(30000-1) + 3.8416 * .5(1-.5)}$$

$$n = 264$$

A total of 264 participants from small and medium-sized businesses in Nairobi County made the research sample. This study adopted a stratified sampling design. This design enabled the researcher to systematically gain population samples that considers the sub groups or sub sectors of all the SME's in the manufacturing sector, leading to stronger research results. This method enabled the research to obtain a sample that best represents the composition of the SMEs in the manufacturing sector. The approach removes variation and the chances of overlap between each stratum. The study has identified ten strata of SMEs in the manufacturing sector. The Sample size was equally distributed among the strata. The researcher randomly selected a sample from each stratum thus eliminating selection bias and making the results stronger.

3.4 Data Collection

Closed-ended questionnaire was used to gather information for this study. A questionnaire was ideal for this study because it will make it easier to get information from samples that are representative of a larger population about a wide range of variables (Veal, 2017). It is also a good way to find out about opinions of the respondents (Saunders et al., 2019). There was three parts of the questionnaire: "General Information," "Dynamic Capability," and "Performance." The researcher used drop and pick or email to get the questionnaires to the people who should fill them out. The management or senior level staff of the identified SMEs was the respondents identified for this study because they know the kind of information needed and are able to respond to the questions.

3.5 Data Analysis

Researcher applied quantitative methods and techniques in analyzing the data collected. The quantitative survey responses was coded and recorded in Statistical Package for the Social Sciences (SPSS). Descriptive analysis in the form of tendency (mean, & dispersion/standard deviation) was used to describe general patterns and characteristics of the data. The quantitative data was also subjected to linear regression and correlation to ascertain the nature of the link between the variables. The direction and intensity of any existing relationships between variables, if any, were determined using this method. The study's dependent variable is the performance of small and medium-sized businesses, whereas its independent variable is dynamic capacities. To ascertain whether there was already a link between the variables, as well as its direction and intensity, linear regression and correlation were performed. The association was established using the following regression model:

Linear regression model

$$Y = \beta_0 + \beta_1 X + \epsilon \dots \dots \dots \text{equation 3.2}$$

Where

Y = Performance of SMEs in manufacturing sector

β_0 = Constant or intercept

β_1 = Slope or change in Y given a unit change in X i.e coefficient of regression

X_1 = Dynamic capabilities

ε is the error term

The results were presented in the form of tables and graphs.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

An analysis of the data, an explanation of it, and a discussion of the results are presented in this chapter. In Nairobi City County's manufacturing industry, the study determined a link between dynamic capabilities and SME performance. This chapter covered a variety of topics, including response rates, demographic data on respondents, findings from the study's objective, and findings from the study's use of inferential statistics as well as linear regression.

4.2 Response Rate

On average, 76.5% of the questionnaires distributed for the study were returned. 202 of the 264 questionnaires that were sent were totally completed and returned for data analysis. The remainder questionnaires were 62; some of which were incompletely filed, some of which were unintentionally tampered with, and some of which were misplaced by responders. According to Mugenda & Mugenda (1999), a return rate of 70% and above is appropriate and adequate for data analysis. The response rate of the data obtained meets this criterion. The response rate is shown in Table 4.1.

Table 4.1 Questionnaire Response rate

Category	Frequency	Percent
Administered	223	100.0
Returned	202	90.58

4.3 Demographic Characteristics of the Respondents

Demographic data on the participants was the goal of the research. These included the respondents' title within the company, prior employment history, number of workers, length of time the company had been in business, and the department where the company's manufacturing

operations were located. The first question asked respondents to identify the role they currently held within the company. The table 4.2 illustrates this.

4.3.1 Position Held in the Organization

Table 4.2Position held in the organization

	Frequency	Percent
General Manager	62	30.7
Accountant/Bookkeeper	40	19.8
Marketing staff	20	9.9
Administrative Officer	30	14.9
Technician	10	5.0
Human resource	10	5.0
Sales or customer service staff	30	14.9
Total	202	100.0

The study findings on table 4.2 show the position occupied by the respondents from the target population. Majority of the respondents 62 (30.7%) were general managers, 40(19.8%) were accountants/bookkeepers, 30(14.9%) were administrative officers, and another 30(14.9%) were sales or customer service staff, 20 (9.9%) were marketing staff, 10(5.0%) were technicians, and the remaining 10(5.0%) were human resource managers. Findings suggest that the responders were able to address concerns about the company's performance and dynamic capabilities.

4.3.2 Working Experience

Table 4.3 Working experience

Working experience	Frequency	Percent
0-5 years	68	33.7
6-10 years	85	42.1
11-15 years	25	12.4
above 15 years	24	11.9

Total	202	100.0
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According to the study's findings on working experience, the majority of respondents—85 (42.1%)—had been in the workforce for between six and ten years, followed by 68 (33.7%) for between zero and five years, 25 (12.4%) for between eleven and fifteen years, and the remaining 24 (11.9%) for more than fifteen years. The respondents had enough experience to respond to questions related to the dynamic capabilities and performance of the business.

4.3.3 Period of Organization in Operation

Table 4.4Period of organization in operation

Period of organization in operation	Frequency	Percent
0-2years	32	15.8
2-5years	44	21.8
5-10years	72	35.6
10-20years	36	17.8
Above 20years	18	8.9
Total	202	100.0

The study findings on the period of organization in operation showed that majority of the SMEs,72 (35.6%) have been in business for the past 5 to 10 years. 44 (21.8%) of the SMEs have been in operation for the last 2 to 5 years, 36 (17.8%) of the SMEs have been in operation for the last 10 to 20 years, 32 (15.8%) of the SMEs have been in operation for the last 0 to 2 years, and further 18 (8.9%) of the SMEs were in business for longer than 20 years. The respondents had been in the business long enough to understand and respond to issues of dynamic capabilities and performance of their respective organizations.

4.3.4 Number of Employees

Table 4.5Number of employees

Number of employees	Frequency	Percent
0-20	20	9.9
21-40	55	27.2
41-60	38	18.8
61-80	73	36.1
81-99	16	7.9
Total	202	100

According to the study's findings on the number of workers, 73 (36.1%) of the SMEs had between 61 to 80 number of employees. The findings also showed that 55 (27.2%) of the SMEs have between 21 to 40 number of employees, 38 (18.8%) of the SMEs have between 41 to 60 number of employees, 20 (9.9%) of the SMEs have between 1 to 20 number of employees, and the remaining 16 (7.9%) of the SMEs have between 81 to 99 number of employees. The findings can be interpreted that majority of the small and medium enterprises in the Nairobi city county have a number of employees between 61 to 80 employees, meaning that the enterprises were large.

4.3.5 Manufacturing Operation Area

Table 4.6Manufacturing operation area

Manufacturing operation area	Frequency	Percent
Food processing	24	11.9
ICT	20	9.9
Electronic products	22	10.9
Clothing& leather	24	11.9
Wood products and furniture	21	10.4
Energy products	22	10.9
Machines	22	10.9
Metallic product	23	11.4
Transport	24	11.9
Total	202	100.0

Table 4.6 displays the research results on the manufacturing operation area and 24 (11.9%) of the manufacturing enterprises were food processing enterprises, 24 (11.9%) of the manufacturing enterprises were clothing and leather enterprises, 21 (10.4%) of the manufacturing enterprises were wood products and furniture enterprises, 22 (10.9%) of the manufacturing enterprises were machine enterprises, ICT enterprises were 20 (9.9%), Electronic products enterprises were 22 (10.9%), energy products enterprises was 22 (10.9%), metallic product enterprises were 23 (1.4%) and transportation enterprises were each 24 (11.9%) of the SMEs in the manufacturing enterprises. The findings can be interpreted that all the manufacturing areas were covered by the study and therefore this study can be generalized for SME manufacturing sector in Nairobi County.

4.4 Dynamic Capabilities

The study sought to establish the relationship between dynamic capabilities and the performance of SMEs in manufacturing sector in Nairobi City County. This section presents the dynamic capabilities practices by SMEs in manufacturing in Nairobi County. The practices include HR expertise and training, adoption of technology and innovation, and research and market survey. The study results were presented in descriptive statistics as mean, and dispersion (standard deviation) statistic as shown in table 4.7 to table 4.9.

4.4.1 Human Resource Expertise and Training

The first dynamic capability practice evaluated by the researcher was human resource expertise and training. The findings are presented on Table 4.7, which shows the impact of human resource expertise and training on SMEs' performance in Nairobi City County's industrial sector.

Table 4.7 Human Resource Expertise and training

Human Resource Expertise and training	Mean Statistic	Std. Deviation
1. The organization has the right skills and expertise through its employees therefore able to perform	3.85	1.084
2. The organization frequently trains its employees to gain the right and additional skills for their jobs	3.77	1.204
3. The organization conducts training needs analysis after every performance review period to identify the	4.08	1.024
4. Recruitments are based on qualified staff	4.12	0.955
5. The assessment of employees training needs is performance-based	4.01	1.074
6. The organization makes a periodic business and strategic plans	3.09	1.194
Valid N = 202, Minimum Statistic = 1 & Maximum Statistic = 5		

The study findings on the effect of human resource expertise and training practice shows that at mean=3.85 (standard deviation= 1.084) respondents accepted that the organization has the right skills and expertise through its employees therefore able to perform optimally. Respondents also accepted at mean=3.77 (standard deviation= 1.204) that the organization frequently trains its employees to gain the right and additional skills for their jobs. Other respondents were in agreement with mean=4.08 (standard deviation= 1.024) that the organization conducts training needs analysis after every performance review period to identify the training needs for each employee. At mean=4.12 (standard deviation= 0.955) respondents agreed that the recruitments are based on qualified staff. Respondents at mean=4.01 (standard deviation= 1.074) agreed that the assessment of employees training needs is performance-based. Further, the respondents agreed at mean=3.09 (standard deviation= 1.194) that the organization makes a periodic business and strategic plans. Based on the analysis above, it can be concluded that Manufacturing SMEs in Nairobi County have the right skills recruited on expertise. Training also seems to be encouraged by the manufacturing SMEs in Nairobi County. However, some SMEs do not have strategic plans.

4.4.2 Adoption of Technology and Innovation

The second dynamic capability practice evaluated by the researcher was the adoption of technology and innovation. The study findings on the impact of innovation and technology

adoption on the performance of SMEs in the manufacturing sector in Nairobi City County are thus shown in table 4.8.

Table 4.8 Adoption of Technology and Innovation

Adoption of Technology and Innovation	Mean Statistic	Std. Deviation
7. The organization has implemented and achieved innovative activities in the last 5-10 years	3.58	1.113
8. The organization continuously carries out innovation	3.84	1.241
9. The use of innovative ways is encouraged among employees and are involved in the processes	4.09	1.220
10. The organization carries out an assessment of technological needs in the business	4.02	1.086
11. The adoption of technology and innovation within the organization has created a new product	4.14	1.090
Valid N = 202, Min Statistic = 1 & Max Statistic = 5		

The study findings on the adoption of technology and innovation showed that small and medium enterprises in Kenya have implemented multiple innovative skills. Respondents at mean=3.58 (standard deviation= 1.113) agreed that the organization has implemented and achieved innovative activities in the last 5-10 years. Another response at mean=3.84 (standard deviation= 1.241) agreed to the statement that the organization continuously carries out innovation that has improved performance. The respondents agreed at mean=4.09 (standard deviation= 1.220) that the use of innovative ways is encouraged among employees and are involved in the processes. In another statement on technological needs, respondents agreed at mean=4.02 (standard deviation= 1.086) that the organization carries out an assessment of technological needs in the business. Finally, respondents at mean=4.14 (standard deviation= 1.090) agreed that the adoption of technology and innovation within the organization has created a new product. Based on the aforementioned data, it can be said that SMEs in Nairobi City County's manufacturing sector have embraced new technology and support the use of innovation in product production. The technology that has been adopted is based on the needs of the organization as well as market demands. The SME employees are encouraged to use their innovativeness to improve production on products and service delivery sector. However, some SMEs have not updated their technology for the last five years.

4.4.3 Research and Market Survey

The last dynamic capability practice evaluated by the researcher was the research and market survey practice. Table 4.9 summarizes the findings of the study on the impact of market research and survey practices on the performance of SMEs in Nairobi City County's manufacturing sector.

Table 4.9 Research and market survey

Research and market survey	Mean Statistic	Std. Deviation
12. There is a designated research department/role within the organization	3.23	1.042
13. The organization conducts regular research on the best market practices in order in order to improve its internal processes	3.77	1.218
14. The feedback received from external surveys is always implemented	3.46	1.089
15. The organization collects customer feedback on their satisfaction with products	3.69	1.203
16. The organization documents its processes, successes and failures and uses the reports to inform decision making	4.18	1.075
Valid N = 202, Minimum Statistic = 1 & Maximum Statistic = 5		

The findings also assessed on the research and market survey done by the small and medium enterprises. Respondents agreed at mean=3.23 (standard deviation= 1.042) that there is a designated research department/role within the organization. Respondents also agree at mean=3.77 (standard deviation= 1.218) that that the organization conducts regular research on the best market practices in order in order to improve its internal processes. In another statement, respondents at mean=3.46 (standard deviation= 1.089) agreed that the feedback received from external surveys is always implemented. Respondents agreed at mean=3.69 (standard deviation= 1.203) that the organization collects customer feedback on their satisfaction with products. Further, at mean=4.18 (standard deviation= 1.075) respondents were in agreement with the statement that the organization documents its processes, successes and failures and uses the reports to inform decision making. Based on the analysis above, it can be concluded that Manufacturing SMEs in Nairobi County documents its processes, successes and failures and uses the reports to inform

decision making. The organization conducts regular research on the best market practices in order in order to improve its internal processes. The organization collects customer feedback on their satisfaction with products. However, few SMEs have a designated research department/role within the organization.

4.4.4 Performance of SMEs in Manufacturing Industry in Nairobi City County

The goal of the study was to evaluate how well SMEs in the manufacturing sector had done in Nairobi City County. On a five point Likert scale with two distinct ranges, the study consequently measured the respondents' level of agreement. The first scale used, ranged from 0%-10%, 11%-20%, 21%-30%, 31%-40% and more than 40%. The second Likert scale used ranged from strongly disagree (1) to strongly agree (5). Results are shown in table 4.10.

Table 4.10 Performance of SMEs in manufacturing industry in Nairobi City County

	Mean Statistic	Std. Deviation Statistic
17. There been an increase in profit over the past five years	4.06	1.140
18. The firm is able to meet its financial obligations	4.17	0.777
19. Our firm has control systems to monitor performance	4.41	1.152
20. Our firm delivers on its overall strategy	3.86	1.056
21. Our customer size retention is above the industry average	4.00	1.005
22. We rarely receive complaints from customers on our products	3.48	0.853
23. The firm supports Human Resource Development for the last 5 years	4.23	1.110
24. The firm conducts extensive Research thus improving the overall performance	3.53	1.320

Valid N = 202

Table 4.10 shows performance of SMEs. The study asked respondents to indicate the performance of small and medium enterprises using a Likert scale factor and the findings indicated that at mean =4.06 (standard deviation = 1.140) respondents agreed that there have been an increase in profit over the past five years. In another statement at mean=4.17

(standard deviation= 1.152) respondents agreed that the firm is able to meet its financial obligations. Also, at mean=4.41 (standard deviation= 0.769) respondents agreed that their firm has control systems to monitor performance. The study found that at mean =3.86 (standard deviation= 1.056) respondents agreed that the small and medium enterprise firm delivers on its overall strategy. In another statement with a mean=4.00 (standard deviation= 1.005) respondents agreed that the small and medium enterprise firm customer size retention is above the industry average.

Respondents were asked about customer complaints and they agreed at mean =3.48 (standard deviation= 0.853) that the firm rarely receives complaints from customers on the products. Also at mean=4.23 (standard deviation= 1.110) respondents agreed that the firm supports human resource development for the last 5 years. And further at mean=3.53 (standard deviation = 1.320) respondents agreed that the firm conducts extensive research thus improving the overall performance. The findings are in agreement with Dagnino, Picone, & Ferrigno, (2021) performance of an organization based on its dynamic capability, can come from its resources and its internal operations like capacity to its skills, learning, and knowledge of how to use its resources. To be so, they must be valuable, rare, unique, and impossible to replace (Banerjee, Farooq, & Upadhyaya, 2018).

Performance of small and medium enterprises is rated by the customer base increase over the past five years at 31% to 40% increase. Based on the analysis above, it can be concluded that manufacturing SMEs in Nairobi County have control systems to monitor performance, support human resource development, and are able to meet its financial obligations. SMEs also have generated profits over the past five years, the customer size retention is above the industry average, and SMEs delivers on its overall strategy.

4.5 Effect of Dynamic Capabilities on Performance of SMES in Manufacturing Sector in Nairobi City County

The results of the connection between the independent and dependent variables are discussed in this part, along with evidence of the independent factors' effect on the dependent variable.

4.5.1 Linear Regression Analysis

The performance of SMEs in the manufacturing sector in Nairobi City County was investigated using a regression analysis to determine the association between dynamic capabilities and performance. To code, input, and compute the measurements of the linear regressions for the study, the Statistical Package for Social Sciences (SPSS) was utilized.

The performance of SMEs in the manufacturing sector in Nairobi City County was the dependent variable. The coefficient of determination R² value was 0.748, which indicates how much of the variance in the dependent variable was explained by the dynamic capabilities. As a consequence, the study's findings showed that, when it comes to the performance of SMEs in the manufacturing sector in Nairobi City County, 74.8% of the difference can be accounted for by dynamic capacities. The adjusted R² value, which is somewhat lower than R² value at 0.747, serves as a measure of the association between the independent and dependent variables since it is sensitive to the addition of irrelevant factors. The typical error, however, was 0.30063 when the model is applied to forecast SMEs' performance in the manufacturing sector in Nairobi City County. Table 4.11 illustrates this.

Table 4.11 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.865 ^a	0.748	0.747	0.30063

4.5.2 Assessing the Fit of Linear Regression Model

Analysis of Variance (ANOVA) was used in the study to determine if the linear regression models matched the data. This assisted in determining if it is possible to forecast Kenya's SMEs' performance in the manufacturing sector in Nairobi City County without relying on the independent variable. Table 4.12 provides the Analysis of Variance (ANOVA) findings. The study's conclusions include a F test that illustrates a general evaluation of the fitted regression model's significance. The overall significance of the regression model may be inferred from the F value, which shows that the variable in the equation was significant.

The results are shown in the table below. The results indicate that the model had a F ratio of 593.854 and the p value was $0.000 < 0.05$, implying that the F ratio was statistically significant. As a result, the overall linear regression model for dynamic capabilities was statistically significant and can be used for prediction. This further demonstrates the statistical significance of the variable employed in this study at the 5% level of significance.

Table 4.12 ANOVA for Testing Linear Regression Model

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	53.670	1	53.670	593.854	.000 ^b
	Residual	18.073	200	.090		
	Total	71.747	201			

a. Dependent Variable: performance of Kenya's SMEs in manufacturing industry

b. Predictors: (Constant), dynamic capability.

4.5.3 Regression Analysis Coefficients

Table 4.13 presents the study's findings and the results of a t-test used to determine the statistical significance of each individual regression coefficient.

Table 4.13 Regression Analysis Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.073	.130		8.230	.000
Dynamic capability	.750	.031	0.865	24.369	.000

a. Dependent Variable: Performance of Kenya's SMEs in manufacturing industry

The findings indicate that the t value was significant because the dynamic capability (independent variable) is a predictor of the performance of SMEs in manufacturing sector in Nairobi City County (dependent variable). The regression analysis coefficient value show that dynamic capability was ($t=24.369$ $p < 0.000$) and the β coefficient value was significant to be used for linear regression since the dynamic capability value was ($\beta_1=.750$ $p < 0.000$). This suggests that an improvement in dynamic capability of one unit led to a 0.750 rise in the performance of Kenya's

SMEs in the manufacturing sector. Table 4.13 provides the following information about the regression model:

$$Y=1.073+0.750X + \varepsilon \dots\dots\dots \text{Equation 4.1}$$

This can be translated to; performance of Kenya's SMEs in manufacturing industry = **1.073+0.750** (dynamic capability)..... **Equation 4.2**

Based on the aforementioned linear regression results, the predictor variable dynamic capability may statistically predict performance of SMEs in the manufacturing sector in Nairobi City County.

4.6 Discussion of Findings

The study findings on human resource expertise and training practice reveals that SMEs in Nairobi City County recruit their employees based on their qualification assessment, and thus consider skills and expertise important for the performance of SMEs. They also make periodic business strategic plans that help in monitoring growth of the business. The results support the claims made by Hassan, Mei, and Johari (2017) that the elements of intellectual capital—namely, human, structural, and relational capital can be a substantial input in the updating of operational capacities and therefore a possible source of improved SMEs performance. The study focused its findings on intellectual capital and its capabilities only and failed to produce findings on other factors related dynamic capabilities such as technology innovations. According to Ramanathan, Ramanathan, and Zhang (2016), operational skills allow small and medium company firms to carry out a task again while employing essentially the same method on the same size to support current goods and services for the same clientele.

The study findings on the adoption of technology and innovation by SMEs in Nairobi City County show that technology use and innovativeness on production is the basis for the majority of the SMEs. The SMEs in Nairobi City County's manufacturing sector are dynamic and are able to adopt new technologies that help them achieve their production goals. Matarazzo et al(2021) . Findings are in agreement with these conclusions that the foundation of enterprise level performance in regimes of rapid (technological) change" is "dynamic capabilities." Additionally, Matarazzo dissects dynamic capabilities into their constituent elements, outlining those "essential to maintain

exceptional organizational performance" in a highly volatile setting. According to Ardyan (2016), the success of product innovation and entrepreneurial attitude have a favorable and considerable impact on SME performance, while market sensing abilities and speed to market have no discernible impact. Leal-Millan and Cepeda-Carrion (2016) also advocated for small and medium enterprise institutions to increase their spending on innovation, marketing, and research development.

The study findings on research and market survey practice shows that SMEs in Nairobi City County utilize data documented on processing reports, successes and failures are used to improve on decision making. New surveys are conducted regularly in order to improve internal production processes that meet customer satisfaction. Most of the SMEs in manufacturing sector in Nairobi City County depend on the feedback received from external surveys and also most of the organization collects customer feedback on product satisfaction. They use the feedback to improve on innovation of the products that brings significant success on organizational performance.

The findings are supported by Institutional theory which Littlewood and Holt, (2018) critiques that research and market survey are very important as it supports dynamic capabilities and its efficiency on business enterprises. Institutional theory has drawn more attention in entrepreneurship research, however most of these studies are conducted in industrialized nations. In contrast, new settings are taking center stage in institutional theory-driven research. Most of this kind of study has clarified parts of the market and governmental failure of nations, allowing various sorts of entrepreneurs to function. In addition, Fores and Camison (2016) suggested that small and medium-sized businesses increase their R&D spending to keep up with the constantly shifting external world.

SMEs' performance of manufacturing sector in Nairobi City County showed that they have performing production systems that are monitored, support human resource development systems, able to meet its financial obligations, record performance of profit over the past five years and have a strategic plan to deliver on its performance. The study results also revealed that the adjusted R^2 value is 0.747; this implies that 74.8% of SMEs performance in manufacturing sector in Nairobi City County can be explained by dynamic capabilities while 25.2% of SMEs performance can be explained by other factors that the study did not examined.

The regression analysis coefficient value show that dynamic capability was at ($t=24.369$ $p< 0.000$) and the β coefficient value was significant to be used for linear regression since the dynamic capability value was at ($\beta_1=0.750$ $p<0.000$). According to this, the performance of SMEs in the manufacturing sector in Nairobi City County increased by 0.750 for every unit rise in dynamic capability. The success of SMEs in the manufacturing sector in Nairobi City County may therefore be statistically be predicted by the dynamic capability.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

A summary of the study's results, conclusions, and recommendations are provided in chapter five, along with ideas for more research. The findings are summarized in accordance with the topic of the study's purpose, which focused on the relationship between dynamic capacities and the performance of SMEs in Nairobi City County's manufacturing sector. Here's how it's presented:

5.2 Summary of the Findings

Data on demographics revealed that on position occupied majority were general managers which implies that the respondents were in a position to respond to issues to do with dynamic capabilities and performance of the business. The findings on working experience showed that majority respondents had enough experience to respond to questions related to the dynamic capabilities and performance of the business. Results regarding the length of time an organization has been in operation revealed that the majority of SMEs respondents had been in the industry long enough to comprehend and address concerns with the dynamic capacities and performance of the industry in which they work. The majority of the small and medium-sized businesses in Nairobi City County have a medium number of employees, according to the statistics. Regarding manufacturing operation area; all the manufacturing areas were covered by the study to ensure that all the manufacturing categories were represented.

Small and medium-sized enterprises (SMEs) in Nairobi County's manufacturing sector have the necessary capabilities. The manufacturing SMEs in Nairobi County appear to support training as well. Nevertheless, several SMEs lack strategic planning. Small and medium-sized businesses in Nairobi City County have adopted new technology and encourage use of innovativeness in product creation. The technology that has been adopted is based on the needs of the organization as well as market demands. The SME employees are encouraged to use their innovativeness to improve

production on products and service delivery sector. However, some SMEs have not updated their technology for the last five years.

Small and medium-sized businesses in Nairobi City document their successes and failures for the purpose of utilizing the information to improve performance on production. Majority of the SMEs conducts market surveys and utilize customer feedback to improve on the production unit and service delivery in general. However, some of the SMEs in city do not have research department but at least utilize information from the existing research firms.

Small and medium-sized businesses in Nairobi City have control systems to monitor performance, support human resource development, and are able to meet its financial obligations. SMEs also have generated profits over the past five years, the customer size retention is above the industry average, and SMEs delivers on its overall strategy.

The regression analysis coefficient value showed that an increase in dynamic capability of one unit led to an increase in performance of SMEs in the manufacturing sector in Nairobi City County of 0.750. Considering the foregoing, it can be concluded that the predictor variable dynamic capability statistically substantially predicts performance of SMEs in the manufacturing sector in Nairobi City County.

5.3 Conclusion

In conclusion, small and medium enterprises in the manufacturing sector have utilized dynamic capabilities through human resource expertise and training, use of technology and innovation and conducting research and survey regularly. The use of technology and engaged innovative culture have made dynamic potential real in the production and service delivery by small and medium enterprises. The small and medium enterprises conduct regular research on the best market practices in order to improve its internal processes. A few SMEs have designated research department within the organization, however all the SMEs somehow rely on market feedback to improve their products.

Moreover, performance of small and medium enterprises is rated by the customer base to have increased over the past five years. Based on dynamic capability implementation, SMEs have

introduced new products to the market within the past 5 years. Due to competency and quality of production realized through dynamic capability, performance of the small and medium enterprises has significantly improved and managers rarely receive complaints from customers on their products. Most small and medium-sized businesses in Nairobi City County have good control systems to monitor performance and ensures that the firm delivers on its overall strategy. And in order to ascertain satisfaction of customers the organization collects customer feedback on their satisfaction based on the products.

5.4 Recommendations

The report recommended that; managers of small and medium-sized businesses should hire personnel based on their qualifications and organize regular training in the technical areas that require additional knowledge to ensure maximum production. The employees that have the right skills and expertise are able to perform optimally and give full commitment to the SME.

The study also recommended that SME's should have designated research department within their organizations to conduct research and analysis as a tool of improving their performance.

The study also recommended that SME's should develop strategic plans to drive and help attain their mandate and vision.

The study recommended that SME's should frequently update their Technology and Innovation to achieve increased performance.

5.5 Contribution to Further Research Studies

In Nairobi City County, small and medium-sized businesses' manufacturing sector performance has changed, and it is demonstrated by firm capability to control systems, monitor general activities, deliver its overall strategy, and expanding its market. Managers of the SMEs also rarely receive complaints from customers on the products. Most of the SME firms conduct extensive research which helps improves the overall performance. However, constrains on suitable economic models and increasing cost of living standard based on increased cost of production remains a challenge.

In addition, the number of highly performing small and medium enterprises frequently trains its employees to gain the right and additional skills for their jobs, the organization makes a periodic business and strategic plans and recruitments are based on academic, character and interpersonal skill qualification. Further, the small and medium enterprises conduct regular research on the best market practices in order in order to improve its internal processes. Also, there is a designated research department/role within the organization. In order to ascertain satisfaction of customers the organization collects customer feedback on their satisfaction based on the products.

5.6 Suggested Areas for Further Research

According to the study, more investigation on a related subject should be conducted in a new study field, such as to examine relationship between dynamic capabilities and the performance of Kenya's SMEs in processing industry.

5.7 Limitations of the Study

Some respondents with-held information which they considered sensitive and could be used by rival organizations for competitive advantage.

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APPENDICES

Appendix I: Letter of Introduction

3rd October 2022

Dear Respondent,

I am a postgraduate student at the School of Business, University of Nairobi, currently carrying out a research titled **the relationship between dynamic capabilities and the performance of Kenya's SMEs in manufacturing industry in Nairobi City County**. This is in partial fulfillment to the award of master of business administration degree. You have been selected as one of the respondents in this study. I therefore request you to kindly facilitate the collection of the required data by answering the question herein. This interview is purely for academic purposes and the data collected will be treated with utmost confidentiality. A copy of the completed project report shall be availed to you upon request.

Your assistance and cooperation will be highly appreciated

Thank you in advance.

Yours faithfully,

Sophia Nafula Wamalwa-----Student (0726, 963259)

Dr. Florence K. Muindi. Ph. D ----- Research Supervisor

Appendix II: Questionnaire

SECTION A: GENERAL INFORMATION

Name of your SME Company.....

Position held in the organization.....

How long have you worked in the organization.....?

How long has the organization been in operation.....

- 0-2years
 2-5years
 5-10years
 10-20years
 Above 20years

How many employees do you have?

- 0-20
 21-40
 41-60
 61-80
 81-99

What is your manufacturing operation area?

- Food processing
 ICT
 Electronic products
 Clothing
 Wood products and furniture
 Energy products
 Machines
 Metallic product
 Transport

SECTION B: DYNAMIC CAPABILITIES

For each statement please indicate your answer using the scale below:

Strongly Disagree	Disagree	Not sure	Agree	Strongly Agree
1	2	3	4	5

No.	Question: Human Resource Expertise and Training	1	2	3	4	5
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	The organization has the right skills and expertise through its employees therefore able to perform optimally					
	The organization frequently trains its employees to gain the right and additional skills for their jobs					
	The organization conducts training needs analysis after every performance review period to identify the training needs for each employee					
	Recruitments are based on qualified staff					
	The assessment of employees training needs is performance-based					
	The organization makes a periodic business and strategic plans					

No.	Question: Adoption of Technology and Innovation	1	2	3	4	5
	The organization has implemented and achieved innovative activities in the last 5-10 years					
	The organization continuously carries out innovation that has improved performance					
	The use of innovative ways is encouraged among employees and are involved in the processes					
	The organization carries out an assessment of technological needs in the business					
	The new Technology is practical in improving organizational performance					
	The adoption of technology and innovation within the organization has created a new product					
No.	Question: Research and market survey	1	2	3	4	5

There is a designated research department/role within the organization					
The organization conducts regular research on the best market practices in order in order to improve its internal processes					
The feedback received from external surveys is always implemented					
The organization collects customer feedback on their satisfaction with products					
The organization documents its processes, successes and failures and uses the reports to inform decision making					

SECTION C: PERFORMANCE

Please indicate how your firm has performed with respect to the following performance outcomes over the last five years.

		0 – 10%	11%-20%	21%-30%	31%-40%	More than 40%					
		1	2	3	4	5					
No.	Question:	1	2	3	4	5					
	What is the percentage of the firm’s return on sales over the last 5 years?										
	What is the percentage of staff who have undergone training and development over the last 5 years?										
	What is your firm’s market share of the products (produced and sold)?										
	What is the percentage of labour turnover within the firm over the last 5 years?										
	At what rate has the customer base increased over the past five years?										
	At what rate have new products been introduced within the firm in the past 5 years?										

For each statement please indicate your answer using the scale below:

Strongly Disagree	Disagree	Not sure	Agree	Strongly Agree		
1	2	3	4	5		
No.	Question:	1	2	3	4	5
	There been an increase in profit over the past five years					
	The firm is able to meet its financial obligations					
	Our firm has control systems to monitor performance					
	Our firm delivers on its overall strategy					
	Our customer size retention is above the industry average					
	We rarely receives complaints from customers on our products					
	The firm supports Human Resource Development for the last 5 years					
	The firm conducts extensive Research thus improving the overall performance					

THANK YOU FOR YOUR FEEDBACK!