

**INFLUENCE OF SERVICE STRATEGIC INNOVATION ON PERFORMANCE OF  
SMALL AND MEDIUM ENTERPRISES IN NYANDARUA COUNTY, KENYA**

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## DECLARATION AND APPROVAL

### Declaration by the student

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

Signature .....  .....

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### Approval by the University Supervisor

This project is submitted for oral defense with my approval as the University Supervisor.

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## DEDICATION

I dedicate this to my husband Joseph, my daughters Jemima, Bernice and Tecla, my mentor who gave me words encouragement and lastly to the almighty God.



## ACKNOWLEDGEMENT

I am deeply grateful to Dr Ruthwinnie Munene, who played an indispensable role in the completion of this project. Her invaluable guidance and unwavering support throughout the research process were influential in shaping the results of this work. Her expertise and insights helped me navigate through complex challenges and refine the ideas presented here. I would also like to express my sincerest gratitude to the almighty God for his provision and guidance. Lastly, special acknowledgments to my family and friends for their constant encouragement and support in my academic journey.



## ABSTRACT

This study aimed to investigate how service strategy innovation affects small and medium-sized businesses' (SMEs') organizational performance in Kenya's Nyandarua County. The following goals guided the research: Find out how the customer interface affects the performance of SMEs in Kenya's Nyandarua County, to ascertain how service delivery systems affect SMEs' performance in Nyandarua County, Kenya, and how technology affects SMEs in the same county. The study was founded on the Rogers Innovation Diffusion Theory, the Conventional Economic Efficiency Theory, the Consumer Behavior Model, and the Service Quality Model. The descriptive research design was used in this investigation. The managers and owners of SMEs in Nyandarua County, who made up the sampling frame, were the study's target group. Stratified random sampling was employed in this investigation. The Yamane formula was used to calculate a sample size of 227 respondents. This study collected primary data through the use of a self-administered, structured questionnaire with closed-ended questions. A pilot study of the questionnaire was done with 20 respondents from the various SMEs included in the study's final sample. According to the survey, the firm's personnel gave clients individualized attention. Correlation research showed a positive and significant linear association between customer interface and SMEs' performance ( $r=0.332$ ,  $p<0.05$ ). According to regression coefficients, a one-unit change in client interface in these organizations might boost performance by 44.3%. A positive and substantial linear association was found between service delivery systems and the performance of SMEs ( $r=0.322$ ,  $p<0.05$ ). While regression coefficients revealed that a unit modification in these organizations' service delivery systems may boost performance by 36.7%. The study's findings revealed that human service in firms had a higher influence on consumer satisfaction. Correlation research found a positive and substantial linear link between technology and SMEs' performance ( $r=0.258$ ,  $p<0.05$ ), with regression coefficients indicating that a unit change in technology can boost performance by 28.9%. The study reveals that business services were easily available to customers who felt welcomed in these establishments. Businesses prioritized delivering high-quality services because their Service supply Systems (SDS) enabled the effective supply of products or services to their clients. The study suggests that managers/owners of SMEs in Nyandarua County plan their client contacts in phases. They must also determine how their products and services will be delivered to clients. Lastly, they need to adopt and implement SST applications in their businesses. By documenting customer preferences, improving service options, and increasing customer-business contacts, this would improve their capacity to customize service experiences and lead to improved performance.

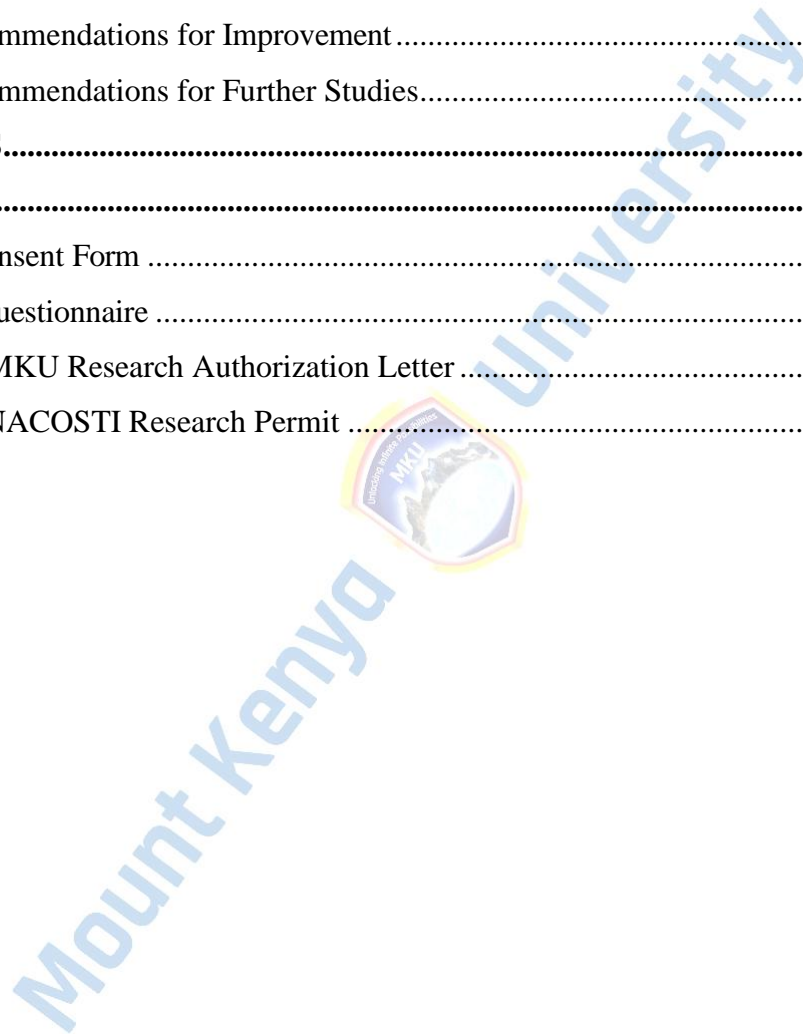
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## LIST OF ABBREVIATIONS AND ACRONYMS

<b>ANOVA:</b>	Analysis of Variance
<b>AR:</b>	Augmented Reality
<b>GDP:</b>	Gross Domestic Product
<b>HSRI:</b>	Human Service and Related Innovation
<b>ICT:</b>	Information and Communication Technology
<b>IoT:</b>	Internet of Things
<b>IRB:</b>	Institutional Review Board
<b>IT:</b>	Information Technology
<b>NACOSTI:</b>	National Council for Science, Technology, and Innovation
<b>ROI:</b>	Return on Investment
<b>SDP:</b>	Service Design Program
<b>SDS:</b>	Service Delivery System
<b>SEM:</b>	Structural Equation Modeling
<b>SMEs:</b>	Small and Medium Enterprises
<b>SPSS:</b>	Statistical Package for the Social Sciences
<b>SST:</b>	Self-Service Technologies
<b>UK:</b>	United Kingdom
<b>VR:</b>	Virtual Reality

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

To remain competitive, expand, and profit, firms in the service sector must constantly innovate and adapt to changes in client needs (Kolagar, Reim, Parida, & Sjödin, 2022). This is especially true for Small and Medium Enterprises (SMEs) with less than 250 employees, which experience constant pressure from larger competitors due to their size and resource limits (McDermott & Prajogo, 2022). As a result, service innovation is viewed as critical to these businesses' survival (de Oliveira-Sousa, da Silva, da Veiga, & Zanini, 2020).

It can give an effective strategy for SMEs to gain a sustainable competitive advantage by providing service solutions that can assist firms in overcoming the difficulty of maintaining growth in saturated markets by increasing their performance (Kankam-Kwarteng, Gatsi, Donkor, and Acheampong, 2018).

There have been numerous attempts to define service innovation. Dotzel and Shankar (2019) define service innovations as creative service solutions or experiences that incorporate one or more of the following elements: A new revenue model, a new value system or business partners, a new service concept, a new customer interface, and a new organizational or technological service delivery system. According to Kankam-Kwarteng et al. (2018), it is typically regarded as a multifaceted phenomenon that encompasses new technology, consumer interfaces, service models, or SDS.

Although it is possible, service innovation does not always have to occur in the service industry. Non-services industries can also offer new and better services, such manufacturing companies looking to add value-adding services to their supply portfolio (Biemans & Griffin,

2018). Therefore, it is believed that service innovation is crucial to SMEs' performance and very existence (Kolagar et al., 2022).

Small and medium-sized businesses (SMEs) play a major role in the economic development of a nation. They boost economic prosperity in many ways, such as by supplying goods and services to the economy, fostering innovation and sustainability, and generating employment opportunities for both urban and rural areas, all of which increase the GDP of the country (Meressa, 2020). Businesses are categorized according to a variety of factors, including the number of employees. SMEs have fewer than 250 employees. SMEs are further divided into small businesses with 10–49 employees and micro-enterprises with less than 10 employees (Biemans & Griffin, 2018).

A vast number of people rely on SMEs, and the majority of today's larger firms began as SMEs. Several features distinguish SMEs from larger firms, including their uncertain nature, innovation, and evolution (Blommerde, 2022). These organizations are inherently impacted by their capacity to create resources through learning economies of scale, in addition to the resources, skills, or abilities they have already gained (Kankam-Kwarteng et al., 2018). Additionally, these resource limitations are typically linked to insignificant management structures, which lead to ineffective market opportunity recognition, poor technology identification, and risk aversion. These factors all negatively affect their innovation process and capabilities, thereby impeding their performance (de Oliveira-Sousa et al., 2020).

From the Latin "performare," which means to finish a planned task, the term "performance" is derived. Its present meaning is based on the English word "to perform," which means to do something that calls for a certain skill or ability (Martinez-Martinez, Cegarra-Navarro, Garcia-Perez, & Wensley, 2019). According to Feng et al. (2020), performance is a broad concept that includes a company's achievements in terms of growth, profitability, and market operations over time. Scholars commonly classify this phrase as either financial or non-

financial performance, despite the fact that there is no precise definition or comprehension of it (Kankam-Kwarteng et al., 2018).

The term performance is frequently used to evaluate an enterprise's work and measure competitiveness (Mahmudova & Kovács, 2019). There is no consensus in the literature regarding the concept of performance, particularly corporate performance. This notion can be characterized in a variety of ways, including abstract, generic, less specified, and clearly defined. In this study, performance will be utilized to represent the degree to which the business's target task is completed in contrast to the final production at the end of a business period (Mahmudova & Kovács, 2019).

Since internal organizational factors like effective operations and delivery systems, a strong innovation culture, and appropriate organizational design practices are some of the key determinants of service innovation performance, the number of SMEs that could excel at service innovation is limited (Biemans & Griffin, 2018). Additionally, in situations that are changing quickly, SMEs need to collaborate closely with their stakeholders in order to speed up the innovation process and create relevant goods or services (Martinez-Martinez et al., 2019). However, little is known about how SMEs learn from these relationships to enhance their performance in service innovation (Dotzel & Shankar, 2019).

Since SMEs might succeed by utilizing external knowledge rather of creating it internally, this question is pertinent to those considering service options (Mahmudova & Kovács, 2019). Understanding the impact of service innovation on SMEs' success is essential to addressing these issues.

Most SMEs fail because regulatory institutions and the government impose needless barriers (Blommerde, 2022). The United Kingdom (UK) government has undertaken many efforts to

stimulate service innovation, including the Service Design Programme (SDP) and the Innovate UK program (European Commission, 2020).

According to a projection by the Office for National Statistics (2022), the SME service sector contributes for 80% of the country's GDP. In Finland, service-oriented SMEs account for 69% of the country's GDP but fail within 9 years (Dotzel & Shankar, 2019). The Finnish government has established schools and programs like Tekes to foster an innovative culture inside the country's organizations (European Commission, 2020).

The elements influencing service innovation performance were investigated in a study of Dutch SMEs engaged in manufacturing. Beginning with a dynamic capacities approach, they expected that one of these crucial elements would be absorptive capacity, which might be impacted by staff cooperation and the firm's search parameters. The results of the survey study showed that employee collaboration strengthened the organization's actual absorptive ability, while staff collaboration and search breadth positively impacted the organization's potential absorptive capacity. As a result, service innovation performance was enhanced by realized absorptive ability. The results offer practitioners possible tactics for surpassing rivals in service innovation endeavors and have ramifications for dynamic capacities theory (Mennens, Gils, Odekerken-Schröder, & Letterie, 2018).

A study examined the relationship between commercial performance in Australian SME service businesses and innovation in exploration and exploitation. The study examined the effect of ambidextrous innovation on business success in these SMEs and employed empirical data from 180 managers in Australian service organizations. According to the research, neither of the innovation orientations shows a significant, direct correlation with business success when size is taken into account. Nonetheless, ambidextrous creativity was

associated with better business performance, proving that exploitation and exploration are complementary.

Subsequent analysis shows that in the sample of small businesses, the relationship between exploration/exploitation innovation and performance varied with size. According to McDermott and Prajogo (2022), service SMEs stand to gain the most from pursuing both exploratory and exploitative innovation. More than 90% of all businesses in Africa are SME sector, and they can be found in both rural and urban locations. This leads to more equitable revenue distributions throughout the nation (Oyebola, 2021).

Service SMEs in Nigeria provide 48% of the country's GDP. Despite challenges in skills capital and knowledge, the Nigerian government has launched several initiatives to promote service innovation, such as the Nigerian Technology Innovation and Entrepreneurship Centre and the Bank of Industry Technology Fund (World Bank, 2019).

A approach for examining the effect of innovation on the performance of SMEs in Nigeria was proposed by Baita and Adhama (2020). For econometrics, they used quantile regression and hierarchical regression models. The study found that market and technological (product and process) innovation significantly boosted the success of SMEs.

Kankam-Kwarteng et al. (2018) looked into how company performance, pricing capacities, and service innovation affected SMEs' performance in the automotive industry. After controlling for company age, size, and form, we evaluated the co-efficient value ( $\beta$ ) of each path between the three variables using quantitative research methods. The convenience sample method was used to include 200 service providers from Ghana. The findings revealed that both service innovation and pricing capability had an impact on business performance, with pricing capability acting as a mediator. The study highlighted the ease of data collection and the fact that it was conducted in a single city. This study contributes to the growing body

of research on pricing competence and its effects on the connection between corporate performance and service innovation.

SME sector in Kenya is vital and strategic in achieving Vision 2030, and it is central to national policies for promoting economic activity while reducing unemployment and poverty. Some SMEs in Nyandarua County, Kenya, are finding it difficult to prosper and expand as a result of adverse environmental circumstances; by the third year of operation, 70% of them are predicted to have closed (Kiiru, Mukulu, & Ngatia, 2023).

Many SMEs continue to face setbacks and poor growth, despite the importance of the SME sector in Kenya for stimulating economic activity, lowering unemployment, and reducing poverty. One contributing factor to these issues is a lack of strategic service innovation, which comprises improving client treatment and expanding current offers (World Bank, 2020).

In Kenya, there is a disconnect between service providers and customers, with limited co-creation and co-design of services that satisfy customer wants and preferences, necessitating more user-centered and participative methods to service innovation (Chege & Wang, 2020). More study is needed on the barriers and enablers of service innovation in Kenya, particularly within institutional frameworks that promote innovation (Kawira, 2021). Kiiru et al. (2023) investigated how innovation influences Kenyan firm performance.

Owners and directors of animal-fed industrial SMEs made up the target population, and they were used as the analytical units. The analytical method employed was Structural Equation Modeling (SEM). The findings demonstrated that innovation significantly and favorably affects business performance. The results of the study show that innovative businesses do

better. The research advises managers and owners of SMEs to foster a creative culture in order to expand and thrive in the market.

## **1.2 Statement of the Problem**

Service innovation has become critical for gaining a competitive edge and superior performance since it focuses on continuously enhancing a company's products or services, manufacturing processes, and management (Feng et al., 2020). However, many investment decision-makers may not fully grasp the importance of service innovation as a competitive advantage, allocating just a tiny portion of their resources to the development of new service offerings (Mennens et al., 2018).

Furthermore, most managers lack the ability to generate long-term or difficult-to-imitate competitive advantages through service innovations (Baita & Adhama, 2020). Although service innovativeness is regarded as one of the most critical strategic orientations of SMEs in order for them to achieve long-term success and improve performance, the Return on Investment (ROI) for service innovations is difficult to estimate correctly, as many service innovations' resource estimation remains unclear due to learning effects in service delivery (Kankam-Kwarteng et al., 2018).

According to Blommerde's (2022) research, service innovations—that is, new or significantly improved services—are essential to the ongoing success of Micro, Small, and Medium-Sized Enterprises (MSMEs). However, it is unclear how much service innovation performance correlates with organizational performance for these different groups. This is because any notable differences between them are often obscured by the common belief that they are homogeneous and studied as a single group. Based on study findings from the body of current

literature, Feng et al. (2020) provided a quantitative analysis of the relationship between service innovation and performance.

Service innovation has a considerable positive impact on company performance, although this effect is modified by economic area performance, business type, innovation type, customer variables, and risk attitudes. According to Baita and Adhama (2020), market and technological innovation (both in terms of products and processes) significantly benefited SMEs' success.

While Chege and Wang (2020) used a sample of 204 SMEs to examine the effect of technological innovation on firm performance in Kenya, Kawira's (2021) study discovered a significant correlation between product/service innovation and MSMEs' success. They divided innovation into three categories: market, method, and product. After adjusting for firm size and age, only process innovation significantly improved SME performance.

There are few studies that focus on service innovation and its impact on SMEs' success. Available research has focused on innovation and SMEs' performance. Thus, they have concentrated on innovation strategies and variables like as price strategies, technology strategies (product and process), and marketing strategies. Despite establishing a link between service innovation and SMEs' success, they have failed to investigate service innovation variables such as service idea, customer interface, and SDS.

This indicates that there are conceptual, knowledge, and practical gaps in the relationship between service innovation and the success of SMEs. Therefore, by examining the impact of strategic service innovation on the performance of SMEs in Nyandarua County, Kenya, this study will aim to create the current link between these aspects.

### **1.3 Purpose of the Study**

Examining the impact of service strategic innovation on the performance of SMEs in Kenya's Nyandarua County was the aim of this study.

#### **1.3.1 Specific Objectives**

The study was guided by the following specific objectives:

- i. To determine the customer interface influence on performance of SMEs in Nyandarua County in Kenya?
- ii. To find out service delivery systems influence on performance of SMEs in Nyandarua County in Kenya?
- iii. To assess the influence of technology on performance of SMEs in Nyandarua County in Kenya?

#### **1.4 Research Questions**

- i. How does the customer interface influence the performance of SMEs in Nyandarua County in Kenya?
- ii. What is the influence of service delivery systems on performance of SMEs in Nyandarua County in Kenya?
- iii. To what extent do technology influence the performance of SMEs in Nyandarua County in Kenya?

#### **1.5 Significance of the Study**

This section summarizes the study's results on the influence of service strategic innovation on the performance of SMEs in Nyandarua County, Kenya. This study provides extensive expertise on the subject to assist SME management in creating policies. Furthermore, it may

assist them in promoting an innovative culture within the firm, as well as in digital transformation to improve their offerings and remain competitive and relevant. The data may help address a policy gap regarding how to improve the implementation of strategic service innovation in Nyandarua County, as well as demographic factors in SMEs.

This study may benefit financial institutions by providing information on SMEs, allowing them to capitalize on the opportunities given by their financial challenges and, as a result, tailor financial products to their specific needs. These products may include loan facilities designed specifically for SMEs to help them develop and implement innovative practices. This study gives information that will be valuable to the government in easing rules and providing necessary assistance to SMEs to prosper. SMEs are the backbone of every economy, thus right policies and regulations are required to allow them to thrive. By providing a deeper understanding of the elements that contribute to service innovation success, this study contributes to the broader scholarly discussion regarding the success of SMEs in Nyandarua County. This can advance the field of digital transformation in the service industry by providing a basis for further research. Consequently, our work adds to the body of existing literature, enhancing learning and laying the groundwork for further studies.

### **1.6 Scope of the Study**

This study set out to investigate the relationship between strategic service innovation and the performance of SMEs in Kenya's Nyandarua County. In order to achieve this, the study assessed how service innovation factors including technology, SDS, and user interface related to SME success. SMEs that operate in Nyandarua County were the study's target population. 227 SMEs were selected at random from the population in a methodical manner. The SME owners and managers were given a standardized questionnaire as part of the research

approach, which depended on quantitative data collecting. The research was carried out from August 2024 until April 2025.

### **1.7 Assumptions of the Study**

The study assumed that respondents gave honest and truthful answers to all questions. It was assumed that all surveys were returned and that external elements, such as weather, remained constant during the research phase. These assumptions were necessary to ensure that the acquired data was valid and reliable.

### **1.8 Limitations of the Study**

This study encountered a number of problems that influenced its execution and outcomes. To begin, time restrictions on the part of managers/owners of SMEs limited their availability and depth of participation. To alleviate this, the researcher provided flexible scheduling options and used efficient data collection procedures, such as leaving questionnaires for owners/managers to fill out at their leisure and collecting them after a reasonably agreed duration.

Another potential drawback was the geographic focus on Nyandarua County, which limited the findings' applicability to other regions or the entire country. To address this, the researcher carefully chose a broad sample of small and medium-sized enterprises (SMEs) from Nyandarua County, assuring representation of various sizes and types of businesses. The study acknowledged this restriction in its conclusions and recommended topics for further research to broaden the scope. Finally, the study encountered difficulties in gathering detailed data from SMEs, since several establishments deemed this information sensitive. To solve this, the researcher employed carefully crafted survey questions that allowed participants to contribute relevant information while protecting their privacy and competitive

position. The study also offered to share aggregated, anonymized results with participating hotels as a way to encourage more open participation.

### **1.9 Delimitation of the Study**

Only specific SMEs in Kenya's Nyandarua County were included in this analysis. The concentration on Nyandarua County allowed for a more manageable scope while yet providing a varied choice of SMEs in all types and sizes. This limitation helps guarantee that the investigation was completed within the time and resource constraints. By focusing on this specific geographical area, the researcher gained a better grasp of the local context and its distinct characteristics in service strategic innovation and its effect on organizational effectiveness of (SMEs). While this technique limited the findings' generalizability to other locations, it did provide useful insights into service strategic innovation in SMEs. The results of the study will be the basis for further research, which might compare several Kenyan counties or extend to other areas.

## 1.9 Operation Definition of Terms

**Service Innovation** - The term "service innovation" in this study refers to the innovation that takes place in a variety of service contexts, such as the launch of new services or minor enhancements to existing ones.

**Performance** : In this study, performance refers to the extent to which a business's target task is completed in comparison to the ultimate output at the end of a business term.

**Small and Medium Enterprises:** Businesses are categorized according to a variety of factors, including the number of employees. SMEs have fewer than 250 employees. SMEs are further subdivided into small businesses with 10–49 employees and micro-enterprises with fewer than 10.

**Customer Interface:** Customer interface refers to the dynamic flow of information between a customer and a business. It is used to facilitate customers' ability to operate and communicate with the business.

**Service Delivery Systems:** SDS is a system or framework for providing items or services to clients in need. Routes of communication and engagement between a service provider and a customer may also be included in this framework.

**Technology:** Technology is the application of scientific knowledge to service delivery with the goal of modifying and manipulating the human and service environments.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

The literature on how service strategy innovation affects SMEs' performance in Nyandarua County, Kenya, is included in this chapter. The chapter examines the degree to which SMEs' performance is impacted by customer interface, SDS, and technology in Nyandarua County, Kenya. It does this by following the chronology of the research objectives.

#### **2.1 Customer Interface and Performance of SMEs**

The exterior environment, the internal environment, and the customer interface are the three primary areas of the environment in which SMEs function (Kang, 2017). Product definition and differentiation, along with competitive factors, make up the external environment. Similar challenges to those faced in conventional manufacturing operations management are addressed by the internal environment. The environment in which a service is provided is known as the customer interface. It involves communicating with the client, which can be done in person, via computer, fax, phone, mail, or a combination of these methods (Kang 2017).

The customer interface refers to the dynamic flow of information between a client and a corporation. It is utilized to improve customers' ability to work and communicate with the company (Dotzel & Shankar, 2019). This encounter might be considered the firm's moment of truth because it significantly affects how the consumer views the service they received. (Hossain, Rahman, Taghizadeh, & Haque, 2019). At this point, a business may lose millions of dollars that have been invested in creating its offers since its representatives may damage the company's reputation and drive away a client if they are not adequately taught in the knowledge of goods and services (Axtell et al., 2018).

Only recently have managers realized that service interactions may be systematically handled and are not random occurrences. The client interface can be highly structured despite the fact that there are many different service delivery platforms (Den Hertog, Vander, & De Jong, 2019). (SMEs) frequently think that it is impossible to organize their business to fulfill the various needs of their clients (Tafida, 2022). Because of this, a lot of SMEs have neglected to provide their customer service representatives with the necessary training and attention. Nonetheless, it is possible to create client interactions that reflect the many stages that take place. The bases fall into the following categories: follow-up, diagnosis, service delivery, check-out, access, and check-in. Not every client engagement involves every stage (Kang, 2017).

### **2.1.1 Customer Access**

The access phase is one of the first times that customers and SMEs connect. Consumers can get in touch with companies by phone, mail, fax, or computer. They can also physically visit the firm to make an appointment, drop in, or just drive past. Customers will have a more favorable initial impression of the company if they can locate their favorite SMEs more quickly (Biemans & Griffin, 2018). By calming the client, a good start can facilitate the subsequent phases (Kolagar et al., 2022).

Customers who have little stake in the deal might object and do business elsewhere if early access is inconvenient for whatever reason. Because of this, special care should be taken to guarantee that business products and services are readily available, giving customers a favorable initial impression (de Oliveira-Sousa et al., 2020).

The access phase includes the actions taken by Hertz Corporation to facilitate the process of clients picking up and dropping off rental cars. When paired with unambiguous signage, the

constant voiced messages help patrons find parking spaces and where to seek assistance (Li & Hsu, 2018).

Even on days when the market is at its busiest, Fidelity Investments, a discount brokerage that most of its clients contact by phone, has made sure that its clients can easily access their systems and get the assistance they require using a straightforward phone interface (Blommerde, 2022). Parking availability, directions or conspicuous signs pointing customers to service facilities, toll-free phone numbers, and appropriate business hours are other methods to ensure easy access (Hanif & Asgher, 2018).

### **2.1.2 Check-In**

It is crucial to remember that the check-in process is a component of what customers purchase and should be designed with their convenience and comfort in mind, even though it represents client registration (Feng et al., 2020). When a customer checks in, they may be asked for their name, identification number, reason for visiting, or any other relevant information that enables the business to start attending to their needs (Tafida, 2022). Before making a purchase request, for instance, a consumer might input their account number. The consolidated account number is one example given by Den Hertog et al. (2019). All of the customer's accounts are immediately accessible after the consumer gives the company's agent this number, so there's no need to provide separate numbers for each dollar involved in the transaction (Huang, 2017).

Making customers feel welcome and acknowledging their presence are essential components of the check-in procedure. Regular customers' service experience can be much enhanced and their likelihood of returning can even be increased by knowing and utilizing their names (Bitran & Lojo, 2021). In order to prevent customers from feeling forgotten, it is vital to greet

them if they cannot be served right away. You may also want to let them know how long they will have to wait for treatment. Lin (2018)

Initiating the service encounter, the check-in step should provide clients with some information (Axtell et al., 2018). To cut down on needless delays, they can verify if they are in the right place or be immediately diverted if they are not. To decide whether a customer's requests can be met and how to best guide them through the service process, staff members need to be sufficiently informed. A customer should be sent to the right individual or business that can provide the required services if she is unable to be helped for whatever reason (Taghizadeh et al., 2019).

### **2.1.3 Diagnosis**

The diagnostic portion of the service encounter, where customers describe how they arrived at the company and checked in, is handled by the primary server. Clients communicate to their server their particular needs and desires (Kang, 2017). Employees shouldn't try to provide services for which they are unprepared or untrained. It is better to direct customers to pertinent departments or businesses rather than offering mediocre services in an attempt to keep their business (Dotzel & Shankar, 2019).

The server must learn to listen intently to customers during this time. This stage is usually hurried by careless professionals who assume they know what customers want and fail to recognize the unique needs and wants that customers bring to the encounter (Bitran & Lojo, 2021). Understanding the customer's expectations is essential before starting to provide services. If necessary, the server can subsequently respond by outlining the company's offerings and the next steps for the client (Lin, 2018).

First conversations with accountants and attorneys are part of the diagnostic process. During these sessions, clients voice their needs or worries, and the expert projects the expected result

together with the time and expense needed to finish their services (Dotzel & Shankar, 2019). Another instance is when the stylist consults with the client before to a haircut in order to learn about his preferences and possibly make recommendations (McDermott & Prajogo, 2022).

#### **2.1.4 Service Delivery**

The service delivery phase satisfies the goals of clients who want to contact the business. Due to the closer interaction between customers and servers, it usually takes longer than the other phases (Biemans & Griffin, 2018). This phase is the foundation of the service experience, with the other phases providing support, and its effective completion is primarily responsible for the customer's overall satisfaction. The requirements at this stage are especially unique to the service being provided (Sadikoglu & Zehir, 2019).

Service quality, which is at the core of the customer-server interaction, requires consistency, tangibles, responsiveness, assurance, and empathy (Kang 2017). Perhaps the most important component of quality is reliability. It is the ability to reliably and consistently provide the services that have been promised. Consumers are extremely dissatisfied when businesses fail to fulfill their promises and want them to do so on time (Bitran & Lojo, 2021). The physical facilities, equipment, staff, and communication materials' look are further aspects of quality. Since they act as quality indicators for people who are not familiar with the business, these can be more important to prospective customers than current ones. Sadikoglu and Zehir (2019) define responsiveness as a server's ability to help customers and provide prompt service.

Assurance encompasses a wide range of lower-level quality elements, such as security, competence, civility, and credibility. The ability of the server to deliver the service with the required abilities and expertise is what determines competence. While credibility refers to the

perceived dependability, trustworthiness, and honesty of the service provider, server civility includes courtesy, respect, consideration, and friendliness. The majority of customers take security for granted, anticipating a service experience free from risk, danger, and uncertainty. (Shankar and Dotzel, 2019). The firm's considerate, individualized treatment of its clients is referred to as empathy. It encompasses accessibility, the ease with which a client can get in touch with the business, communication, listening to the client and providing information in a language they can comprehend, and knowing the client and trying to understand their needs (Li & Hsu, 2018).

### **2.1.5 Check-Out/Disengagement**

Although it is often disregarded, the check-out, or disengagement, phase is essential to concluding the service encounter. This stage doesn't even exist in certain businesses. For instance, after leaving the counter with their orders, patrons of fast food restaurants are left to fend for themselves (Bitran & Lojo, 2021). However, as disengagement is the customer's final perception of the business, it needs to be handled carefully (Taghizadeh et al., 2019). Since customers' opinions of the service are still being formed, this is the perfect time to ask for their opinions. Additionally, it offers a crucial chance to make up for any shortcomings while preserving a personal touch (Hernández-Linares et al., 2021).

An extreme example of poor disengagement is when customers call a telephone operator and ask for an extension. Operators frequently switch to the necessary extension in these situations without commenting. Kolagar et al. (2022) compare it to a unilateral pullout. Clients don't know what's going on for a few seconds. Moreover, clients are often left waiting on the line. In other words, they are left wondering what to do if the extension does not reply. They could eventually have to dial once again. They were deserted in route, and the withdrawal was unilateral (Tafida, 2022).

### **2.1.6 Follow-Up**

Since the creation and consumption of services happen at the same time, follow-up is essential for evaluating quality. During the follow-up, or post-check-out phase, the customer's ongoing satisfaction with the service or product is assessed, and any grievances can be resolved (Sadikoglu & Zehir, 2019). Customers' perceptions of the service may change over time, and while some feedback can be obtained during the checkout process, they may not know right away if they are satisfied. Any input from clients, whether positive or negative, should be considered a favor, and follow-up should never be forced (Feng et al., 2020).

How to deal with disgruntled customers who feel their interaction with the business has caused them a great deal of inconvenience is one of the most urgent issues in the post-checkout phase. The similar problem may arise during or just after the service delivery phase. It is crucial to realize that, even though a business may consistently satisfy clients, there are some instances that infuriate them and are very hard to forget (Bitran & Lojo, 2021).

When such an incidence has taken place, it can be easily identified. For instance, when a business that depends heavily on this type of technology encounters an unforeseen delay in fixing its main computer facility, the corporation may clearly see how annoyed and unsatisfied the customers are (Mahmudova & Kovács, 2019). In other situations, it might be much harder to establish if customers have been gravely offended because different customers have diverse interpretations of very similar events (Axtell et al., 2018).

Businesses must take a major and unique step to change the negative image when customers feel they have been truly offended or inconvenienced (Kang, 2017). Otherwise, even after a lengthy period of favorable experiences, clients are likely to remember such issues. Addressing customer satisfaction gaps is a critical task (Bitran & Lojo, 2021). Customers' overall perception of the interaction is influenced by these six phases, which work in tandem

with one another. Errors made in any previous stage could affect the attitudes and satisfaction of clients in other stages, making it more challenging to win their approval. It is usually far simpler and less costly to avoid such errors than to make up for them later in the interaction (Hernández-Linares et al., 2021).

## **2.2 Service Delivery Systems and Performance of Small and Medium Enterprises**

Delivering high-quality services is a crucial goal for SMEs looking to generate and add value to their clients (Groza, Zmich, & Rajabi, 2021). By providing high levels of service quality, SMEs may boost customer happiness, loyalty, and, as a result, long-term profitability. SMEs must plan their service delivery and make sure the plan is carried out properly in order to achieve high levels of service quality and so create value for their clients (Poku, Zakari, & Soali, 2019). Consequently, the SDS is highly dependent on careful planning and efficient execution of designated delivery plans. Additionally, ongoing service operations development raises service standards for SMEs and optimizes SDS (Kankam-Kwarteng, Donkor, & Acheampong, 2019).

SDS are collections of interconnected elements that collaborate, such as people, products, and procedures essential to service delivery (Blommerde-Winters, 2022). It is described as a structure or system that provides goods or services to people who are in need. Channels of interaction and communication between a client and a service provider may also be included in this framework (Feng et al., 2020). An integrated design approach is necessary to guarantee proper synchronization between practices within the entire service system, which is composed of numerous interdependent processes for providing services, including hierarchically organized process architecture (Donkor, Donkor, Kankam-Kwarteng, & Aidoo,

2018). According to Odoom, Anning-Dorson, and Acheampong (2019), the system encompasses the administrative, technological, and organizational facets of service delivery in addition to the manner in which services are provided to clients.

An SDS concentrates on offering the service concept to customers. Buildings, machinery, infrastructure, and structure—which is mostly made up of policies and skills—as well as the integration of procedures to provide the idea of service are all included. Structural decisions are linked to the physical attributes of the service system, including its design, equipment, and facilities. The role of service providers in terms of employment design, skill set, and policies is referred to as "structured choices." When choosing an integration strategy, one should take into account service supply chains, coordination difficulties, and adaptive mechanisms.

The distribution of services from a single service provider to target clients is the focus of SDS design. Accordingly, the SDS relies heavily on efficient planning and the execution of created delivery plans (Kankam-Kwarteng et al., 2019). An SDS's primary objective is to provide the right quality and price at the right time, giving the consumer good value. The utilization of people, processes, physical facilities, and equipment is described by Martinez-Caro, Cepeda-Carrión, Cegarra-Navarro, and Garcia-Perez (2020).

To close the service quality gap—the difference between actual service delivery and service quality specifications—employees who provide services try to achieve the quality standards set by management through the SDS. As a result, an SDS bridges the gap between

expectations and consumer experience (Poku et al., 2019). Generally speaking, SDS should be responsible for delivering a number of positive outcomes, such as the best possible customer experience, improved service quality, increased availability of effective operations, and reduced costs (Kankam-Kwarteng et al., 2018).

### **2.2.1 Service Delivery System Components**

According to de Oliveira-Sousa et al. (2020), the SDS architecture is made up of the SDS components, which link the service content technique as distinct by the choice of strategic design choices and strategies related to execution and the customers' comprehension of service value experiences. The way the service model is conveyed to the objecting customers is encountered by the SDS design. Infrastructure, such as facilities and equipment, and structure, such as job design and skills, are components of service delivery systems (Bamfo & Kraa, 2019).

The physical features of the service system, including its layout, facilities, and equipment, are revealed by the infrastructure choices made (Afriyie et al. 2019). The responsibilities of procedures, layout, facilities, service processes, technology, equipment, and people are at the heart of the structural design decisions. To effectively describe and structure a system of service design and delivery, proportions must be quantified collectively due to the interactions between physical items, people, and service processes (Groza et al., 2021).

The emphasis on customer contact touch points, such as the relative service allocation task to front- and back-rooms and the types and number of channels of distribution (traditional mail, internet, kiosks, and stores), determines how effective technology is in service delivery systems and how it affects management infrastructure choices (Rippa, Quinto, Lazzarotti, & Pellegrini, 2019).

The decisions concern policies, people, practices, performance procedures, and systems (Poku et al., 2019). Structural decisions also affect the service plan's policies, behavioral elements, and programs. Practices include open reflection on the strategies and technologies used to make workforce scheduling decisions, manage service excellence, create service standards, and measure system performance (Kankam-Kwarteng et al., 2020). Precise structural issues relating with service processes, performance management, personnel, and leadership involve a complicated series of decisions that are typically long-term (Witell, Gebauer, Jaakkola, Hammedi, Patricio, & Perks, 2021).

### **2.2.2 Service Delivery System Effectiveness**

System effectiveness is "getting the right things done" or "producing a specific, intended effect" (Donkor et al., 2018). An effective SDS is one that can yield the results for which it was designed and created, as SDS efficacy is correlated with the extent to which a system's goals have been achieved (Kankam-Kwarteng et al., 2019). Cost savings, increased availability of effective operations, better service quality, and an ideal client experience are just a few of the positive outcomes that SDS should frequently produce (Witell et al., 2019).

Because customers are much more likely to give a service a positive rating when the business successfully delivers the value that was promised to them, an effective SDS must lead to high levels of service quality, both in terms of actual technical quality and in terms of customer perceptions (Zeithaml et al., 2021).

#### **2.2.2.1 Role of Employees**

Because they reflect the SDS's most important result, which is its capacity to satisfy customer wants and generate customer value, employee job performance and adaptability are seen as important components of SDS effectiveness (Blommerde-Winters, 2022). When considering the effectiveness of an SDS, it is important to take into account the coordination and control

of its various interdependent service activities, which are arranged hierarchically and integrated within a particular process architecture (Odoom et al., 2021). This is due to the fact that these two components will affect the system's efficacy by influencing how this integrated set of procedures is ingrained in service delivery (Sadikoglu & Zehir, 2019).

The success of the service depends on the performance of its employees, who work both in the back office and on the front lines (Lin, 2020). Front-line employees must fulfill their duties in service delivery effectively and efficiently if they are to perform properly. Either their managers or a formal job description or blueprint that takes into account service level agreements, management standards, and customer needs outline their role in the SDS. By carrying out their designated responsibilities effectively, service staff can contribute to meeting customer expectations and company quality criteria (Martínez-Caro et al., 2020).

#### **2.2.2.2 Employee Adaptability**

Employee flexibility should not be mistaken with sporadic variations in performance and behavior. This is due to the fact that service delivery is only influenced by adjustments that are meant to satisfy particular client wants (Witell et al., 2022). Following earlier definitions, employee adaptability in this study is therefore defined as the capacity of employees to modify their behavior in order to meet the demands of every client contact (Hanif & Asgher, 2020). Employee flexibility is a crucial indicator of SDS success in fulfilling predetermined quality standards, claim Rippa et al. (2016).

Service quality is closely linked to frontline employees' capacity to respond to the unique behavior of each client (Groza et al., 2021). It may be easier for more flexible staff members—especially those with more authority—to give each customer individualized attention and thereby satisfy their unique needs (Su & Kunkel, 2019). Workers who only

follow their superiors' instructions and lack the ability or desire to adapt their behavior to the situation (such as the needs of the customer) are unable to deliver high-quality service (Afriyie et al., 2019). Actually, pleased clients usually cite the ability of employees to comprehend their unique needs and offer customized service as the main factor contributing to their happiness (Odoom et al., 2020).

### **2.2.2.3 Employee Coordination**

Employee coordination refers to how well people collaborate to achieve mutually agreed-upon goals (Feng et al., 2020). Employee coordination (or cooperation) has always had a positive impact on an organization's function (Su & Kunkel, 2019). Service providers, in particular, are continuously looking for methods to increase employee communication and maximize how teams and departments collaborate. This is because better coordination among individual employees, in addition to improving the company's overall organizational function, allows firms to create value for their clients (Kang, 2023).

To achieve this, both task coordination among personnel in the same department or team and intra-departmental coordination of operations must be strengthened (Taghizadeh et al., 2019). A service organization can avoid double efforts, bottlenecks, and confusion during service delivery by effectively coordinating activities (Kankam-Kwarteng et al., 2019). Avoiding operational, organizational, and managerial failures ensures the SDS's efficacy and efficiency, resulting in greater customer evaluations. Regarding the latter, it is critical to optimize coordination between front-line and back-office workers, since this is a necessary aspect for service delivery performance (Hernández- Linares et al., 2021).

### **2.2.2.4 Process Control**

Another SDS component that has a beneficial impact on service quality is process control effectiveness (Sadikoglu & Zehir, 2019). Using earlier theoretical considerations, we define

process control in this study as the sum of the systems and methods for controlling work flow and utilizing capacity resources in order to satisfy particular performance requirements (Axtell et al., 2022). These techniques can improve the effectiveness and efficiency of the service delivery process and include the use of control charts, performance measuring instruments, and set standards (Den Hertog et al., 2022).

To make the service delivery process more efficient, cost-effective, and customer-driven, the service provider uses the SDS to assess, review, and improve it on a regular basis (Bamfo & Kraa, 2019). According to Martínez-Caro et al. (2020), the control approach consistently improves the quality and delivery of services for customers. Any increase in process control will result in more effective and efficient delivery operations, which will improve customer service because it is a crucial component of the SDS (Groza et al., 2021).

### **2.3 Technology and Performance of Small and Medium Enterprises**

Numerous innovative technologies, including mobile devices, wireless broadband internet, artificial intelligence (AI), virtual reality (VR) or augmented reality (AR), and the Internet of Things (IoT), have impacted and will continue to impact almost all service businesses, including SMEs.

Technology is the application of scientific knowledge to service offerings with the goal of modifying and controlling the human and service environments (Mennens et al., 2018). Technology's constant advancement has greatly reduced barriers to adoption, which has led to a dramatic shift in consumer behavior.

Most consumers today regard technological products as standard business practice (Kervenoael, Hasan, Schwob, & Goh, 2020). These include computerized ordering systems, mobile information guides, wireless internet, and self-service kiosks for check-in and

checkout (Chiang & Trimi, 2020). Customers' growing desire for convenience, ease of use, trouble-free service, and fast accurate information makes the use of the Internet, e-commerce platforms, and information technology (IT) essential competences for any e-commerce SMEs to stay competitive (Lee & Lee, 2020).

A hybrid term "untact" service was created in South Korea in 2018 to describe the current service delivery style driven by a change in consumer behavior, given the expanding trend of technology adoption and usage. (Giroux, Choi, Badu-Baiden, Kim, and Kim, 2021). The term "untact service" describes services rendered using digital technology that do not involve in-person interactions between clients and providers. Lee and Lee (2020). Some types of customers enjoy "solo shopping" because they feel awkward around people, including tech-savvy professionals, young shoppers, one-person homes, introverts, and/or public figures.

### **2.3.1 Self-Service Technologies**

Responding to changes in consumer behavior, the SME sector is using increasingly advanced Self-Service Technologies (SST). The capacity of SST apps to adapt service experiences by tracking customer preferences, enhancing service options, and expanding interactions between customers and companies is one of their primary capabilities (Kervenoael et al., 2020).

This unstoppable trend in technology adoption is changing the service sector from "high-touch and low-tech" to "low-touch and high-tech" (Shin, Perdue, & Kang, 2019). Customers may consider pleasant service personnel as a basic need for high-quality service as they increasingly use and rely on technologies powered by big data.

(Lee and Lee, 2020).

On the other hand, there is a broad consensus that human factors are crucial during service interactions (Luo, Wang, & Tai, 2019). Consumers may prefer human interaction during service encounters because they see them as social experiences (Chan & Tung, 2019). Even small acts of kindness by employees can make a big difference in the marketplace and establish a unique brand identity for the company. (Kim and others, 2021).

Even while technology typically outperforms people, humans are still better at two things: empathy and creativity. Although technology can meet customer expectations for operational efficiency, consistency, and reliability, service staff members' assurance, responsiveness, and empathy can create a warm human connection that meets customers' emotional needs and goes above and beyond their expectations (Shin & Perdue, 2019). Put another way, human services are more effective at providing distinctive and unforgettable experiences when they attend to the emotional needs of their clients and establish a bond with them.

Kim and associates, 2021. Additionally, because humans are capable of self-learning, service staff members continuously learn and develop their service skills through their work experiences. This enables them to develop innovative ways of serving based on each individual service encounter, meeting the various needs of customers and offering distinctive experiences. In 2020, Kervenoael et al.

Frontline employees frequently come up with original and imaginative ideas during service exchanges. This level of sophisticated self-learning and ongoing service improvement is not yet achieved by technology. The loss of the social connection and the lack of human interaction during service interactions may be impeding customer satisfaction and retention even as consumers embrace SSTs and self-service more and more. (Koqalkowski, Tronvoll, & Helkkula, 2020).

The mechanical and analytical levels of artificial intelligence are the first two that modern service robots can do, but they are not proficient in the intuitive and sympathetic higher-order intelligences. The human element cannot and should not be overlooked, even though technology applications have attracted a lot of attention and resources in the e-commerce business. (Trimi and Chiang, 2023).

### **2.3.2 Human Service and Related Innovation**

The importance of Human Service-Related Innovation (HSRI) applications in the e-commerce industry is emphasized by Shin and Perdue (2019). These techniques aim to emphasize the importance of organizational and human capacities in service innovation, which encompasses both technical and non-technological innovations (i.e., relational and organizational change). (Helkkula & colleagues, 2020). Given the availability of comparable resources and technology, Wang, Luo, and Tai (2024) contend that technology does not provide small and medium-sized businesses (SMEs) with a significant competitive edge. On the other hand, as innovation and originality usually originate from the creative discretion of frontline staff during the service encounter, human service is advised as a crucial pillar for service innovation. (Larivière & colleagues, 2021).

In terms of innovation performance, new or enhanced workplace practices, among other non-technological innovations, have a higher chance of success. The main element influencing consumer satisfaction and joy is human interaction. (Parga-Dans, Pasamar, & Martin-Rios, 2019). Extremely pleasant human involvement may be a more effective way to accomplish the most desirable goal of creating a genuine emotional connection with consumers. (Trimi and Chiang, 2020). For service innovation to succeed, non-technical innovation features—like the information-intangible contents of service goods, highly skilled personnel, efficient

delivery systems, service delights, and close client interactions—are more important than technological breakthroughs. Lee and Ryu (2018).

Customers' perceptions and interpretations of new service encounters are greatly influenced by the attitudes and actions of frontline service workers. Consumers expect unique experiences from every service interaction, especially in the experiential era. Human service may be better than technology at satisfying the emotional demands of its clients because it may offer empathy, a desired social identity, and a sense of exclusivity through personalized attention. In 2018, Helkkula et al. Customers value a service when it helps them achieve a desired social identity or verifies their identity. (Wang and others, 2020). Human employees outperformed service robots in terms of establishing emotional connections with customers and providing interesting experiences. Technology cannot replace the tremendous emotional satisfaction that comes from interacting with people. Therefore, customer happiness and delight may be more influenced by human service than by technology. Business managers may make better strategic decisions if they understand how customer service and technology impact consumer happiness. Lee and Ryu, 2022).

The non-technological component of service innovation is specifically defined in this study as extraordinary service actions, as evidenced by the complete professionalism (both behaviorally and attitudinally) of service employees, their exceptional empathy and attentive behaviors, and their extreme helpfulness in providing one-stop services. (Luo and others, 2023). Improved or new workplace practices are examples of innovation in non-technological services. Service pleasures, highly qualified staff, efficient delivery procedures, the information-intangible nature of service goods, and intimate client relationships (Martin-Rios et al., 2021). Lee and Ryu (2023). The service provider may generate a WOW and unique

feeling by providing clients with a level of care, respect, attention, and assistance they have never had before. (Tai and others, 2024).

An innovative approach to service delivery may result from the exceptional services rendered by service workers, which could be regarded as new or enhanced working methods. Furthermore, because the staff's exceptional service goes above and beyond what the clients had anticipated, it may elicit intense emotional responses in order to satisfy them. (Kim and others, 2021). Consequently, HRSI refers to the ability of service providers to elevate or expand their service offerings to an exceptional degree by providing clients with a degree of care, respect, and extreme support that greatly exceeds their expectations and has never been experienced before. As a result, it can produce a powerful WOW and unique experience to boost client happiness. (2020, Wolfe).

### **2.3.3 Employee Behaviour**

The primary traits that distinguish frontline staff from regular service are their proactive and timely response, great sensitivity, keen observational abilities, empathy, and attentive behaviors. (Luo and others, 2020). The characteristics mentioned above are similar to the social intelligence component put forth by Shin et al. (2021), which requires anthropological knowledge to allow employees to "read" and understand customers' needs and satisfaction with different aspects of service by observing how they behave during service interactions. Compared to conventional communication abilities, this is more important.

The ability of employees with social intelligence to understand, observe, and take seriously the visitor's requests by putting themselves in their shoes is a crucial component of their ability to develop ideas or implement new procedures based on service experiences (Martin-

Rios et al., 2019). Excellent support As a result, in addition to meeting clients' obvious wants and creating a joyful atmosphere, performance may also detect their latent desires and actively offer the best service to meet their unspoken needs. (Helkkula & colleagues, 2020).

In other words, service employees with better social intelligence may react more quickly and adapt their service offerings more appropriately and creatively to satisfy customers' hidden emotional demands by observing subtle changes in customers' gestures or facial expressions. (Lee and Ryu, 2022). These immediate service adjustments are unprecedented and go above and beyond what customers anticipate, particularly when they are tailored to address their unfulfilled emotional requirements. Therefore, excellent service offerings may simultaneously arouse a powerful emotional reaction of delight and provide customers with a sense of novelty. Customers are more likely to stay with a firm to continue having a great experience and guaranteeing its success when their impressions exceed their expectations.

(Tai and others, 2021). Therefore, it has long been thought that customer satisfaction positively affects the development of desired customer loyalty behaviors, such as positive word-of-mouth and repeat business. (Kim, Sung, and Jeon, 2020). Perdue and Shin (2019) Customer pleasure is the word used to describe a customer's experience with a product or service that exceeds their expectations in terms of value or satisfaction. Customer delight, according to some study, is a positive, nonlinear response to extremely high levels of pleasure. (Kim and others, 2023). To put it another way, when customers perceive an experience that goes well beyond the upper limits of their comfort or tolerance, they feel a strong, joyful emotional state that results in their satisfaction. (Luo and others, 2019).

Some academics contend that pleasure is a purely emotional attribute that can be achieved by meeting consumers' higher-order, hedonic (enjoyment-related) wants, which can cause people

to feel intensely positive feelings like joy, excitement, and thrill. (Jeon and others, 2020). SMEs must go above and beyond to satisfy customers in order to maintain long-term client relationships. This will help to establish a strong emotional bond with them and guarantee their loyalty throughout the year. In 2020, Kervenoael et al.

## **2.4 Theoretical Framework**

Consumer Behavior Models, Service Quality Model, Rogers Innovation Diffusion Theory, and Conventional Economic Efficiency Theory were the theories used in the study.

### **2.4.1 Consumer Behavior Models**

In order to better understand current and potential customers, models of purchasing behavior have been developed since the 1940s with the aim of describing and forecasting consumer behavior (Chisnall 1995). Schiffman and Kanuk (1994) assert that multivariate models are the most suitable of the numerous consumer behavior models developed to date because they are sufficiently comprehensive to capture the dynamics of client decision-making. The multivariate models highlight the fact that non-rational factors influence a large number of purchasing decisions, including those that are motivated by economic factors. This concept illustrates how complex consumers' tastes and preferences are; as a result, they are likely to seek fulfillment on an economic level, but also to incorporate emotions, social ties, and cultural norms on a deeper level.

### **2.4.2 Service Quality Model**

The SERVQUAL model is largely considered the most extensively used model for measuring customer satisfaction across nearly all service sectors. It is based on consumers' assessments of service quality by comparing expected and actual value received and accounting for gaps

between the two. (Parasuraman, Berry, and Zeithaml, 1999). The model outlined the essential conditions for delivering top-notch services.

### **2.4.3 Rogers Innovation Diffusion Theory**

In an effort to explain the adoption of new concepts or inventions, Rogers developed the Diffusion of Innovation Theory (Rogers, 1995). According to the theory, adoption is influenced by five aspects of an innovation: trialability, observability, complexity, compatibility, and relative advantage. The degree to which an innovation is thought to be better than the concept it replaces is known as its relative advantage. Innovations that offer a distinct, unmistakable advantage over previous methods are more likely to be selected and put into practice, according to Rogers' theory. According to recent research, an invention won't be accepted if a potential user doesn't see any relative benefits from using it (Greenhalgh et al, 2020).

The degree to which an invention aligns with the demands, past experiences, and current values of potential customers is known as compatibility. There is strong empirical support for the idea that innovations with greater compatibility have a greater chance of being adopted (Greenhalgh et al., 2024). The degree to which an idea is thought to be challenging to comprehend and implement is known as its complexity. Additionally, Rogers suggested classifying new innovations along a complexity-simplicity continuum, with the disclaimer that prospective customers might not understand the significance (and hence relevance) of the 15 breakthroughs. When key players consider innovations

They are more likely to adopt them if they are simple to use (Greenhalgh et al, 2024). Trialability is the degree to which a concept can be tested on a small scale. New ideas that may be tried before being fully implemented have a higher chance of being adopted because they need time, effort, and resources. Lastly, observability is the degree to which an

innovation's effects are visible to those who adopt it. This hypothesis is true since the innovation is more likely to be adopted since its application has measurable positive effects.

#### **2.2.4 Conventional Economic Efficiency Theory**

Conventional economic efficiency theory states that businesses should organize their production to get the lowest cost per unit. Because fixed costs are spread across a limited number of units, low output levels are inefficient given the typical mix of fixed and variable costs in company. However, whereas above-optimal output can theoretically result in economies of scale, in practice, the overstressing of existing systems frequently results in additional costs that more than outweigh this apparent advantage.

The production level at which all potential economies of scale are utilized, but below the level at which the diseconomies of overstraining existing systems become evident, is the point of optimum operational efficiency in the short term. However, increasing the existing systems' capacity over time can aid in reaching the optimal level of productive efficiency (Zerbe, 2021). The distribution of existing resources is the subject of the second component of traditional economic efficiency theory. The reasoning is that fierce competition between producers should prevent them from over profiting by driving up their selling prices above their marginal costs.

A firm achieves maximum allocative efficiency at the corporate level when it produces the ideal amount of a variety of goods or services to optimize the overall benefit to the organization. Given that corporate resources are finite and may only be used once, the concept considers that employing a quantity of a material for one purpose results in an opportunity cost, meaning that the business forfeits the chance to use the same thing for another. Allocative efficiency is only attained when no alternative pattern of resource

consumption can yield a better overall outcome in terms of the welfare of all interested parties, which makes this theory pertinent to the study.

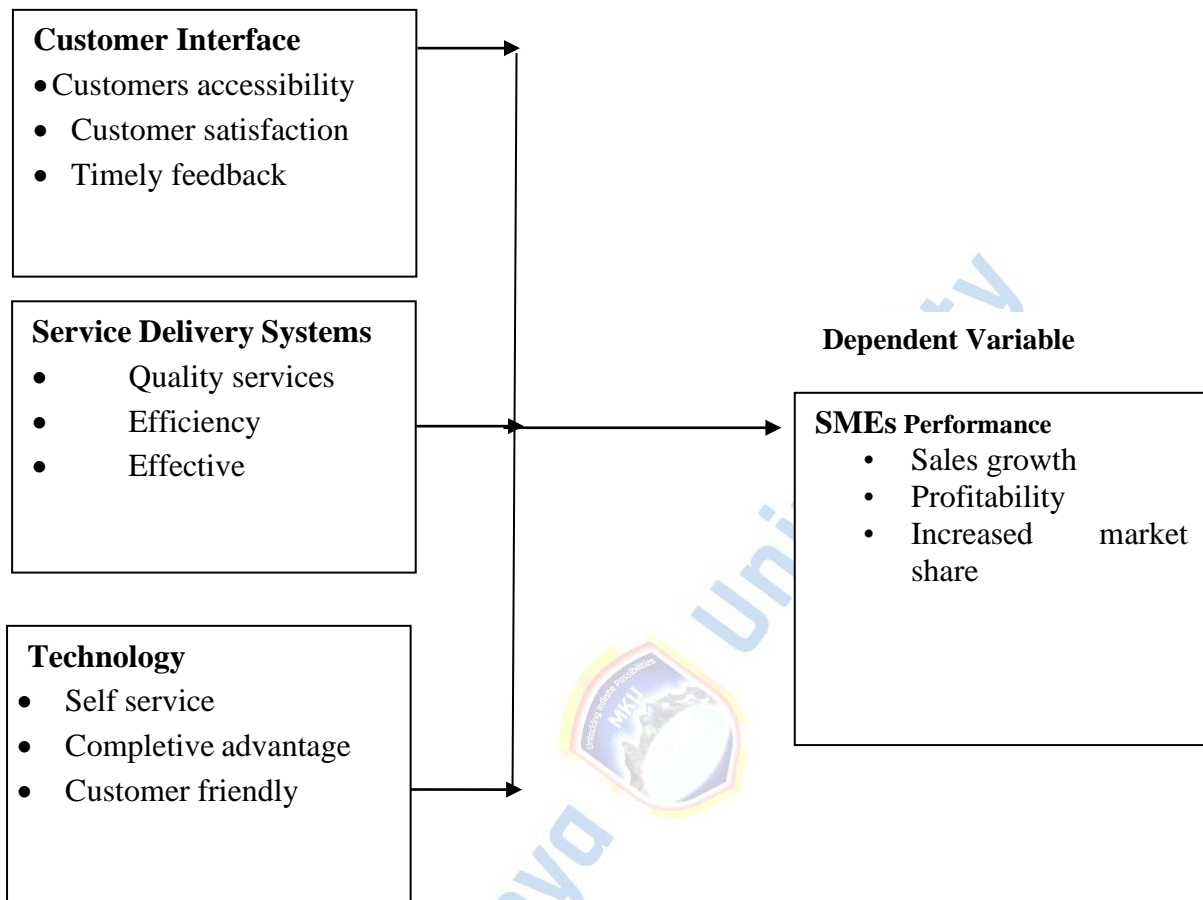
The Pareto optimum allocation of resources is another name for this point of maximum allocative efficiency, where improvements in one aspect of utilization can only be achieved at the expense of losses in other areas. The theory offers a fundamental framework for comprehending the various factors influencing current operating costs. Managers may be able to create plans to increase the effectiveness of particular areas of their company by comprehending the core ideas of the theory (Quinzi and Sujaya, 2019).

The strategy pushes managers to ignore the potential presented by innovation and adopt a "static" perspective of their companies. A weakness in conventional economic efficiency theory has been brought to light by the recent rapid advancements in technology. Additionally, the focus on the lowest viable cost may give an unduly simplistic picture of how organizations function; yet, the theory is still applicable in certain low-tech and non-innovative manufacturing situations.

## **2.5 Conceptual Framework**

The study's structure outlines the link between independent and dependent variables. The consumer interface, service delivery systems, and technology will be considered independent variables. The study's dependent variable will be SMEs' success in Nyandarua County, Kenya, as evaluated by sales growth, profitability and expanded market share.

## Independent Variable



**Figure 1: Conceptual Framework**

**Source:** Researcher (2025)

## 2.6 Recap of Literature Review

This chapter's objective was to provide literature on how service strategy innovation affects SMEs' performance in Kenya's Nyandarua County. Following the timeline of the research objectives, the chapter examined how much the performance of SMEs in Nyandarua County, Kenya, is impacted by the customer interface, how much the performance of SMEs is impacted by SDS, and how much the performance of SMEs is impacted by technology.

Despite its strategic positioning to absorb service innovations, further research is required on the specific effects of these service strategy advances in other sectors. The available literature provides insights into how various service improvements are accepted in diverse circumstances. Due to contextual, sector, and management heterogeneity among companies, questions of strategy effects on performance derived from these studies can not be assumed to describe the relationship between service innovations and organizational success. Accordingly, the researcher investigates the connection between service innovations and the accomplishments of Kenyan companies that are not SMEs.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

Research technique is covered in this chapter, along with an explanation and description of the steps and strategies that will be employed to conduct the study. After a thorough evaluation of the research design, study population, sample design, data collection techniques, research procedures, and data analysis methodologies used in the study, the chapter concludes with a chapter summary.

#### **3.1 Research Design**

Evidence supporting the study's objective of examining the effect of strategic service innovation (an independent variable) on the performance of SMEs (a dependent variable) in Nyandarua County, Kenya, was gathered using a descriptive research design. This approach was selected because it made survey research possible for the study. According to Booth (2016), survey research is a study in which information is gathered from a random sample of pertinent groups and accurately computed over a certain amount of time.

#### **3.2 Population**

A population is the complete collection of components from which one wishes to draw certain conclusions. The target audience comprised key players such as owners and managers (Cooper & Schindler, 2021). The study's target demographic was managers / owners of SMEs operating in Nyandarua County. According to the Nyandarua County Business Licensing Department, the County had around 525 registered SMEs as of 2024, as shown in Table 1.

**Table 1: Population Distribution**

<b>Business Sector</b>	<b>Number</b>	<b>Percentage</b>
Education Entertainment Service Providers	4	0.8
General Merchants and Retail Hospitality	15	2.9
Information and Communication Technology (ICT)	57	10.9
Wholesalers	290	55.2
Real Estate and Construction Transport	53	10.1
<b>Total</b>	<b>525</b>	<b>100</b>

**Source:** Nyandarua County Business Licensing Department (2024)

### **3.3 Sampling Design**

#### **3.3.1 Sampling Frame**

A sampling design is a study approach that describes how samples are selected for follow-up, and its purpose is to find a representative sample (Kumar, 2018). The sampling frame for this study, which was based on data from the Nyandarua County Business Licensing Department (2024), consisted of managers/owners of the specified SMEs in Nyandarua County.

#### **3.3.2 Sampling Technique**

The sampling approach is the process of choosing individuals from an audience to reflect the population (Coopers & Schindler, 2021). This study used the stratified random sampling technique. The stratified random sampling method was utilized to select managers / owners from the various SMEs covered by this study. The study mainly focused on the SMEs'

business sectors, which included education, entertainment, service providers, general merchants and retail, hotel, ICT, wholesalers, real estate and construction, and transportation. The strategy was chosen because it allowed every population strata to be included in the final sample size, hence minimizing selection variance. Furthermore, it enabled higher levels of representation.

### 3.3.3 Sample Size

A subset of the target group selected for the study makes up the sample size (Creswell & Creswell 2018). According to Heap and Waters (2019), a sample is a carefully selected subset of the population of interest that is used for analysis. Yamane's (1967) formula was used to calculate the sample size for this study. 227 owners and employees of SMEs in Nyandarua County made up the study's sample size, and their distribution is indicated in Table 2.

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

Where:

$n$  = Sample Size

$N$  = Population

$e$  = Sampling Error (95% or 0.05)

Thus:

$$n = \frac{525}{1+525(0.05)^2}$$

$$n = \frac{525}{1+1.3125}$$

$$n = \frac{525}{2.3125}$$

$$n = 227$$

**Table 2: Sample Size Distribution**

<b>Business Sector</b>	<b>Number</b>	<b>Percentage</b>	<b>Sample Size</b>
Education Entertainment Service Providers	4	0.9	2
General Merchants and Retail	15	2.6	6
Hospitality	57	11	25
ICT	290	55.1	125
Wholesalers	53	10.1	23
Real Estate and Construction	59	11.5	26
Transport	29	5.3	12
<b>Total</b>	7	1.3	3
	<b>11</b>	<b>2.2</b>	<b>5</b>
	<b>525</b>	<b>100</b>	<b>227</b>

**Source:** Nyandarua County Business Licensing Department (2024)

### 3.4 Data Collection Methods

Primary data was used in this investigation. In order to derive correlations, it was utilized to ascertain the frequency of variables. A systematic questionnaire with closed-ended questions was used to elicit the opinions and perceptions of the respondents. The best way to obtain information that cannot be seen is through questionnaires; this allows for the collection of respondents' ideas, perceptions, and points of view.

A standardized, self-administered questionnaire comprising four parts of closed-ended questions was employed in this investigation. The background information of the respondent is the main emphasis of Section A. While Section D covered the technology and performance of SMEs in Nyandarua County, Kenya, Sections B and C addressed the SMEs' performance and interactions with customers.

### **3.5 Data Collection Procedure**

The researcher obtained consent from numerous stakeholders to carry out the study due to ethical considerations. The Graduate School of Business and the university's Ethical Review Board gave its approval to the researcher. The researcher applied for research clearance from the National Council for Science, Technology, and Innovation (NACOSTI) after receiving university approval.

### **3.6 Pilot Test**

The researcher tested the validity and reliability of the questionnaire in a pilot study before starting fieldwork. Finding any instrument problems was made easier by pre-testing the questionnaire (Cooper & Schindler, 2018). For testing, a sample of 23 respondents—or 10% of the total population—was selected. This implied that the final sample of the study would not include 23 respondents from a variety of SMEs. The degree to which a study's data captures what it intends to capture is known as validity (Heap and Waters, 2019). By designing the questions in line with the goals of the study and having the study supervisor evaluate the research tool, the researcher ensured validity. Reliability is defined as the consistency of findings across test items (Kumar, 2014). The Statistical Package for the Social Sciences (SPSS) was used to conduct the Cronbach Alpha test in order to evaluate the study's reliability. According to Cooper and Schindler (2014), the appropriate Cronbach alpha level is 0.7; hence, the study adhered to the instrument's standards.

### **3.7 Data Analysis Methods**

Data analysis techniques involved thoroughly reviewing gathered data for correctness and completeness before assembling it into a format suitable for statistical analysis (Sekaran & Bougie, 2016). The SPSS program was used to analyze the data from this study using both

descriptive and inferential statistics. Descriptive statistics including means, frequencies, and standard deviations were used to assess the study data. This made it easier to display the patterns and characteristics of the data. Regression and correlation analyses were part of the inferential analysis utilized in the study.

While correlation analysis was used to ascertain whether the study variables had a linear relationship, regression analysis was used to ascertain the degree to which the independent variables—technology, service delivery systems, and customer interface—influenced the dependent variable (SMEs' performance). The findings were presented in the form of figures and tables. In this investigation, the following linear regression was employed:

$$\gamma = a + \beta_1\chi_1 + \beta_2\chi_2 + \beta_3\chi_3 + e$$

Where:

$\gamma$  = SMEs Performance

$a$  = Constant (Point Where Regression Line Crosses the Y Axis)  $\beta$  (1,2,3,4) = Slope

Coefficient for Variables  $\chi_1$ ,  $\chi_2$ , and  $\chi_3$

$\chi_1$  = Customer Interface

$\chi_2$  = Service Delivery Systems  $\chi_3$  = Technology

$e$  = Error

### 3.8 Ethical Issues

The authority of the Graduate School at Mount Kenya University, as well as approval from (NACOSTI), were sought to ensure that the procedure of this study complies with the principles of ethics required for such an activity. The identity of responders and the information gathered throughout the response process were safeguarded by coding. Objectivity was achieved by allowing the respondent to express an independent opinion while maintaining discretion and personal integrity. Clear explanations were provided before and

after data collection, giving the respondent the option of participating, partially participating, or completely withdrawing before responding in order to acquire consent. Participants in the study were given verbal or gestured praise for their participation.



## CHAPTER FOUR

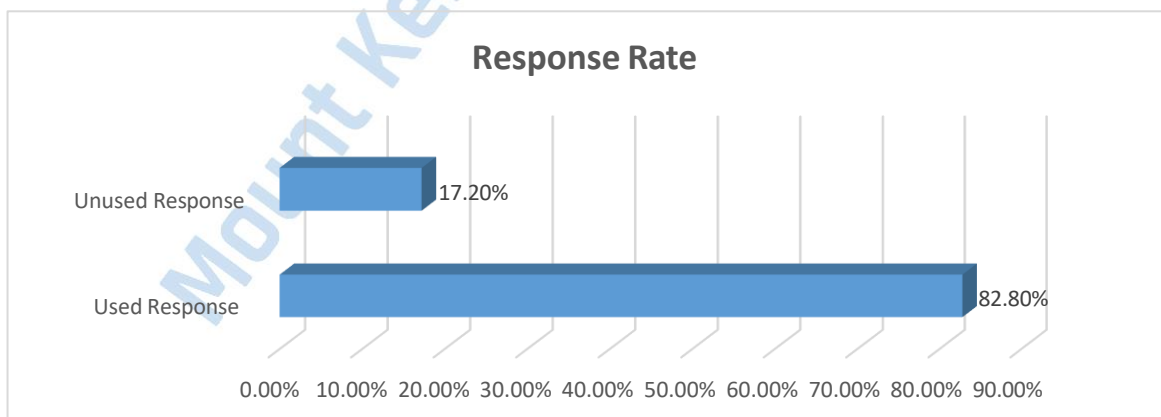
### RESULTS AND FINDINGS

#### 4.0 Introduction

This chapter presents the results and findings for the strategic service innovation influence on the performance of SMEs in Kenya's Nyandarua County. The chapter follows the chronology of the research questions, which investigate the extent to which customer interface influences SMEs' performance, the extent to which SDS influences SMEs' performance, and the extent to which technology influences SMEs' performance in Nyandarua County, Kenya.

#### 4.1.1 Response Rate

The questionnaires were distributed to the 227 study participants. Consistent follow-up by the researcher prompted a higher rate of response. Following sorting and cleaning, 188 surveys were confirmed to be entirely filled and error-free. This reveals that the response rate for the study, as shown in Figure 2, was 82.8%.



**Figure 2: Response Rate**

Source : Field Data, (2024)

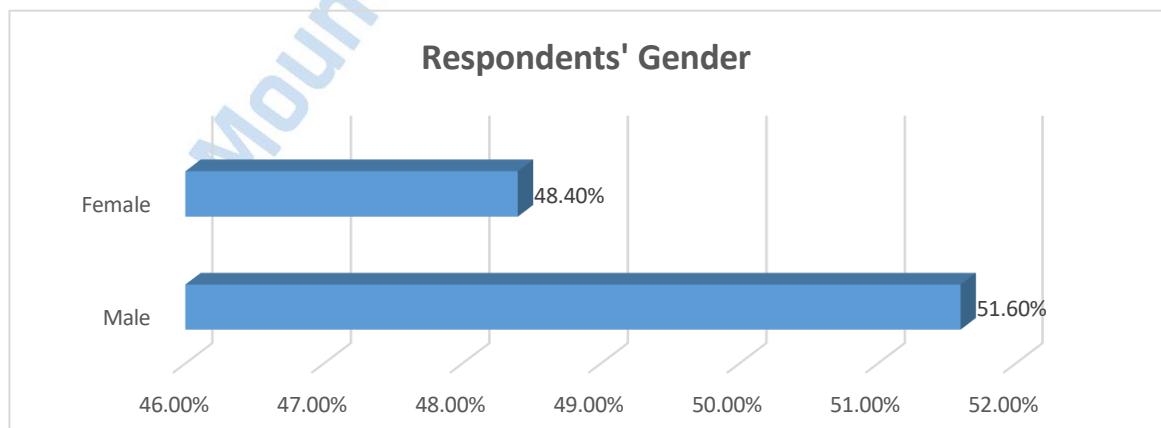
This means that all 227 employees/owners of SMEs operating in Nyandarua County were given the survey questionnaires. The surveys were collected and verified to ensure consistency during the data cleaning and sorting process. All surveys having multiple answers to the same question, as well as those with missing sections or questions, were removed. Thus, only 188 (82.8%) of the 227 (100%) questionnaires were included in the study, while 39 (17.2%) were rejected and destroyed.

## 4.2 Background Information

This section's primary focus is on investigating the respondents' backgrounds and information. It analyzes the respondents' gender, education level, business category, and length of time in the SME industry.

### 4.2.1 Respondents' Gender

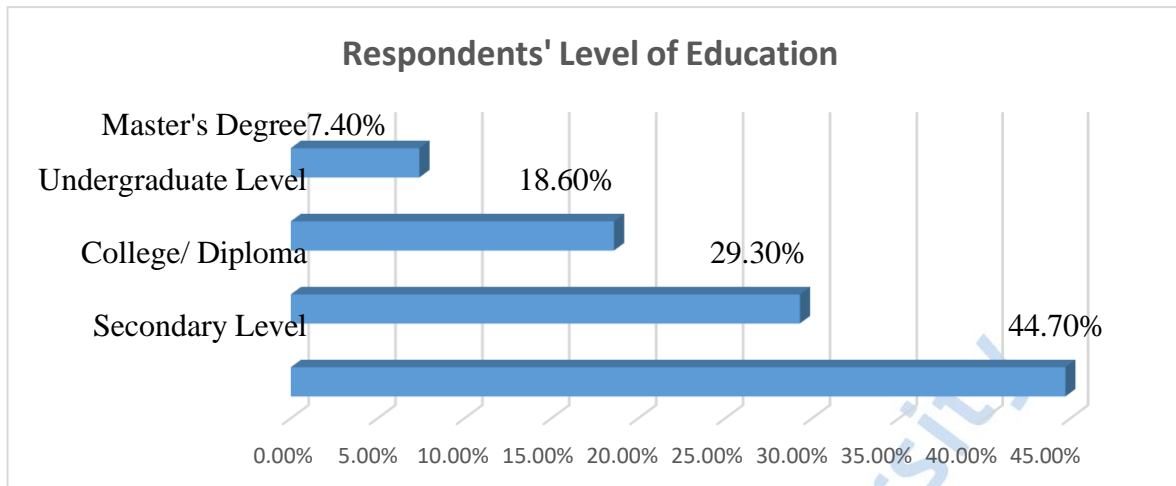
Figure 3 depicts the participants' responses to the question about their gender. The results suggest that of the 188 responders, 97 were male and 91 were female, with men comprising the majority. This shows that 51.6% of the population was male and 48.4% was female. This suggests that the gender disparity in the research study was exceedingly small and had no influence on the study's conclusions.



**Figure 3: Respondents' Gender**

Source: Field Data, (2024)

#### 4.2.2 Respondents' Education Level



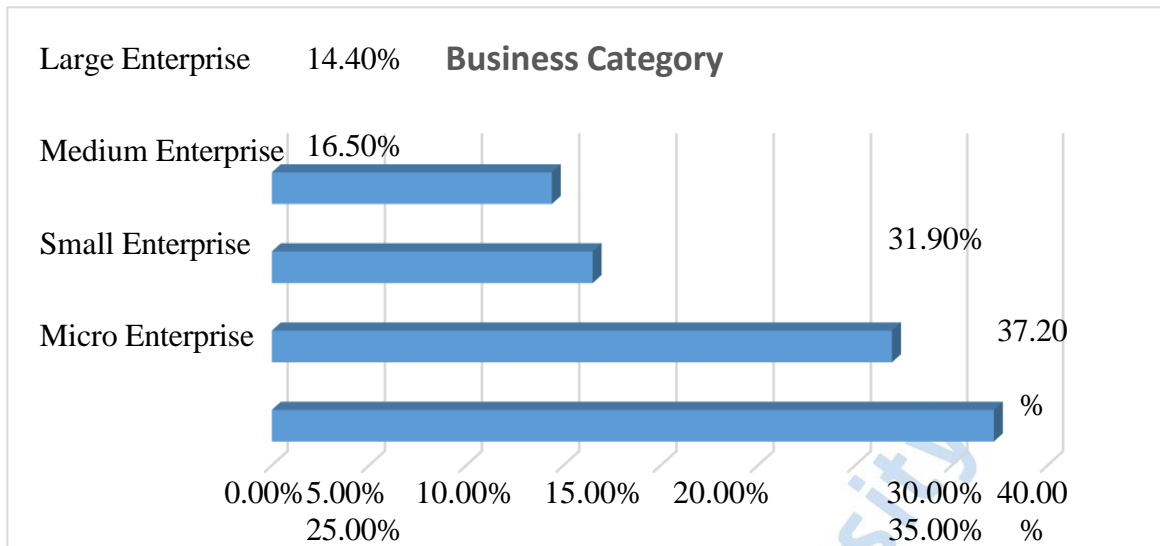
**Figure 4: Respondents' Education Level**

Source : Field Data, (2024)

Figure 4 depicts the study participants' response to the question about their education level . According to the study's findings, 44.7% (84) of the study participants had completed their secondary level certificates, 29.3% (55) had obtained a college/diploma, 18.6% (35) had an undergraduate level degree, and 7.4% (14) had completed their master's degree. This shows that the respondents' educational level had a substantial impact on the study's conclusions because the majority were highly educated and thus understood the questions.

#### 4.2.3 Business Category

Figure 5 depicts the results of the study question that enquired about the respondents' business categories. According to the survey's findings, 37.2% (70) of study participants ran micro businesses, 31.9% (60) ran small businesses, 16.5% (31) ran medium-sized businesses, and 14.4% (27) ran large businesses. This suggests that the survey findings were broad because they included the perspectives of respondents from many company categories.

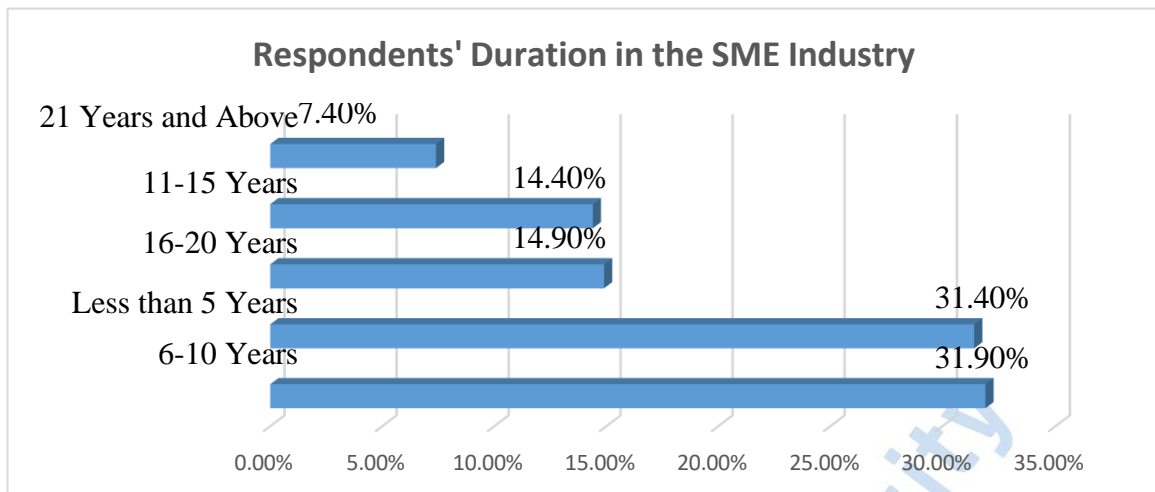


**Figure 5: Business Category**

**Source:** Field Data, (2024)

#### 4.2.4 Respondents' SME Industry Duration

Figure 6 depicts the results of the study participants' responses to the question about how long they had been working in the SMEs industry. According to the study's findings, 31.9% (60) of the study participants had been in the SME industry for 6-10 years, 31.4% (59) had been in the industry for less than 5 years, 14.9% (28) had worked in the industry for 16-20 years, 14.4% (27) for 11-15 years, and 7.4% (14) for more than 21 years. This shows that the survey respondents' tenure in the SME industry had a substantial influence on the study's findings, as the majority of them had been in the industry for more than 6 years.



**Figure 6: Respondents' Duration in the SME Industry**

Source: Field Data, (2024)

### 4.3 Customer Interface and Performance of Small and Medium Enterprises

This part is primarily concerned with the comprehensive descriptive and inferential analysis of the first research question, which intended to determine the extent to which customer interface affects the performance of SMEs in Nyandarua County, Kenya.

#### 4.3.1 Descriptive Analysis for Customer Interface and SME' s Performance

According to the study findings on the extent to which customer interface influenced the performance of SMEs in Nyandarua County, Kenya, the most notable study item that all study participants largely agreed on was: firm employees provided individualized attention to customers (mean = 4.46; standard deviation = 0.689). It also demonstrates that the least agreed-upon statement was: our company solicits consumer feedback after they depart the premises (mean = 3.72; SD = 1.024). Table 3 presents an overview of the study findings.

**Table 3 : Descriptive Analysis for Customer Interface and SME' s Performance**

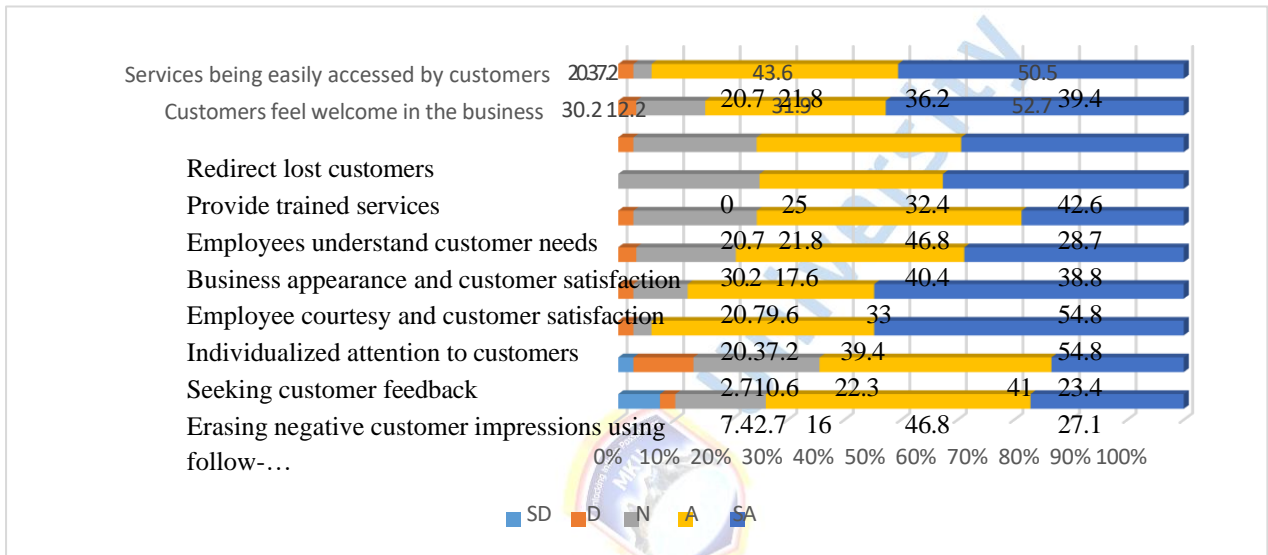
	N	Mean	SD
Our services are readily available to customers.	188	4.43	.684
Customers feel welcome in our business.	188	4.35	.816
We constantly redirect lost consumers to the proper place.	188	4.13	.840
Our staff provide services that they are trained on	188	4.17	.806
Our personnel prioritize understanding our customers' needs before providing services.	188	4.03	.783
Our business look influences customer satisfactions	188	4.14	.821
Customer satisfaction is significantly impacted by employee civility.	188	4.41	.772
Our personnel offer personalized attention to customers.	188	4.45	.688
Our business seeks customer feedback once they leave the premises	188	3.73	1.025
We collect consumer feedback after they depart the premises.	188	3.83	1.088

The item, our services are easily available to clients, received a mean of 4.43, indicating that this was true. The item, "Our customers feel welcome in the business," received a mean of 4.35, indicating that this was true. The item, We always redirect lost consumers to the right place, had a mean of 4.13, indicating that this was correct. The item, Our workers provide services for which they are trained, got a mean of 4.17, indicating that this was correct. The item, "Our employees understand customer needs before providing any service," received a mean of 4.03, indicating that this was true.

The item "Our business appearance affects customer satisfaction" had a mean of 4.14, indicating that it was true. The item staff civility affects customer satisfaction got a mean of 4.41, indicating that this was correct. The item, Our personnel deliver personalized attention to consumers, received a mean of 4.45, indicating that this was correct. The item, Our company solicits client input after they leave the premises, had a mean of 3.73, indicating that this was partially accurate. The item "Our company erases negative customer impressions through follow-ups" had a mean of 3.83, indicating that it was partially true.

### 4.3.2 Frequency Analysis for Customer Interface and SME's Performance

This section presents the frequency analysis results for the first study question, which intended to determine the extent to which customer interface affects the performance of SMEs in Nyandarua County, Kenya. Figure 7 shows that the research items had a higher likelihood of receiving the majority of replies in agreement.



**Figure 7: Frequency Analysis for Customer Interface and Performance of Small and Medium Enterprises**

**Source:** Field Data, (2024)

The item our services are easily available to customers received 50.5% strong agreement, 43.6% agreement, 3.2% neutrality, and 2.7% disagreement, indicating that the firm's services were easily accessible to customers. Customers felt welcome at the business, as evidenced by 52.7% highly agreeing, 31.9% agreeing, 12.2% neutral, and 3.2% disagreeing. The item we always redirect lost clients to the proper spot received 39.4% of respondents strongly agreeing, 36.2% agreeing, 21.8% neutral, and 2.7% disagreeing, indicating that business staff always redirected lost customers to the correct location. Our personnel offer services that they have been trained on, with 42.6% strongly agreeing, 32.4% agreeing, and 25% indifferent;

this implies that the firm's employees provided services that they had been instructed on. The item our employees understand client demands before giving any service received 46.8% agreement, 28.7% strong agreement, 21.8% neutrality, and 2.7% disagreement, indicating that the firm's employees understood customer needs before offering any services.

The item our business appearance influences the satisfaction of our customers with 40.4% of respondents agreeing, 38.8% strongly agreeing, 17.6% neutral, and 3.2% disapproving, indicating that the firm's consumers were satisfied. Employee civility affects customer satisfaction with 54.8% of respondents strongly agreeing, 33% agreeing, 9.6% indifferent, and 2.7% disapproving; this indicates that employee courtesy affected customer satisfaction in organizations. Our employees provide individualized attention to clients received 54.8% strongly agreeing, 39.4% agreeing, 3.2% neutral, and 2.7% disagreeing responses, indicating that firm employees provided individualized attention to their customers.

The item our business seeks consumer feedback after they leave the premises had 41% of respondents agreeing, 23.4% strongly agreeing, 22.3% neutral, 10.6% disagreeing, and 2.7% strongly disagreeing; this suggests that the firms sought customer input after they left the premises. The item our company erases unfavorable customer impressions through follow-ups had 46.8% of respondents agreeing, 27.1% strongly agreeing, 16% neutral, 7.4% strongly disagreeing, and 2.7% disagreeing; this indicates that the companies eradicated negative customer impressions through follow-ups.

### **4.3.3 Correlation Analysis between Customer Interface and Performance of Small and Medium Enterprises**

Table 4 shows the correlation analysis used to investigate the impact of customer interface on the performance of SMEs. The study found a substantial positive linear association ( $r=0.342$ ,  $p<0.05$ ) between consumer interface and SMEs' performance.

**Table 4: Correlations between Customer Interface and Performance of Small and Medium Enterprises**

SME's Performance		Customer Interface	
SME's Performance	Pearson Correlation	1	
	Sig. (2-tailed)		
Customer Interface	Pearson Correlation	.342**	1
	Sig. (2-tailed)	.000	

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

#### 4.3.4 Regression Analysis for Customer Interface and Performance of Small and Medium Enterprises Model

Table 5 summarizes the regression model results between customer interface and SMEs' performance. The client interface explains 10.67% (adjusted R<sup>2</sup> = 0.107) of the variance in SMEs' performance. Other factors not examined in the study, as well as the error term, account for the remaining 89.3 percent.

**Table 5: Model Summary for Customer Interface and Performance of Small and Medium Enterprises**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.342 <sup>a</sup>	.111	.107	.49898

a. Predictors: (Constant), Customer Interface

b. Dependent Variable: Performance of SMEs

#### 4.3.5 ANOVA for Customer Interface and SME' s Performance

Table 6 displays the results of the Analysis of Variance (ANOVA) between client interface and SMEs' performance. The study found a substantial positive linear relationship (F (1,187) = 23.063, p < 0.05) between consumer interface and SMEs' performance.

**Table 6: ANOVA for Customer Interface and Performance of Small and Medium Enterprises**

ANOVA <sup>b</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	5.743	1	5.743	23.063	.000 <sup>b</sup>
	Residual Total	46.307	186	.248		
		52.050	187			

a. Predictors: (Constant), Customer Interface

b. Dependent Variable: Performance of SMEs

#### 4.3.6 Regression Coefficients between Customer Interface and SME' s Performance

Table 7 shows the results of the regression coefficients between customer interface and the performance of SMEs as follows:

$$\text{Performance of SMEs} = 1.775 + 0.443 \text{ Customer Interface} + \varepsilon$$

The table indicates that customer interface has a significant influence on the performance of SMEs in Nyandarua County ( $\beta = 0.443$ ,  $t(188) = 4.801$ ,  $p < .05$ ). A unit adjustment in customer interface can boost performance by 44.3%. The T-Test results show that customer interface significantly impacts the performance of SMEs in Nyandarua County ( $t(188) = 4.802$ ,  $p < .05$ ).

**Table 7: Regression Coefficients between Customer Interface and Performance of Small and Medium Enterprises**

Coefficients <sup>a</sup>						
Model		Unstandardized		Standardized		
		B	Std. Error	Beta	t	
1	Constant	1.774	.393		4.499	.000
	Customer Interface	.444	.093	.332	4.801	.000

---

a. Dependent Variable: Performance of SMEs

b. Performance of SMEs = 1.774 + 0.444 Customer Interface +  $\epsilon$

#### 4.4 Service Delivery Systems and Performance of Small and Medium Enterprises

This part focuses on a detailed descriptive and inferential analysis of the second study question, which sought to determine the extent to which service delivery systems influenced the performance of SMEs in Nyandarua County, Kenya.

##### 4.4.1 Descriptive Analysis for Service Delivery Systems and SME' s Performance

According to the study findings on the extent to which service delivery systems influenced the performance of SMEs in Nyandarua County, Kenya, the most notable study item that all study participants largely agreed on was: the primary purpose of our service delivery systems is to provide the required quality service to customers (mean = 4.38; standard deviation = 0.721). It also demonstrates that the least agreed-upon item was: our business control method consistently enhances our service delivery (mean = 3.18; SD = 1.324). The summary of the study findings are shown in Table 8.

**Table 8: Descriptive Analysis for Service Delivery Systems and Performance of Small and Medium Enterprises**

	<b>N</b>	<b>Mean</b>	<b>SD</b>
We prioritize providing high-quality services in our business.	188	3.72	.951
Our delivery systems assure timely delivery of products and services to customers.	188	3.85	.914
Our service delivery methods aim to ensure high-quality service for customers.	188	4.38	.721
Our service delivery system has improved the consumer experiences	188	3.96	1.126
Employee performance significantly impacts the effectiveness of service delivery in the organization	188	4.06	.958
We vary from the standard to meet consumer needs.	188	3.83	1.033

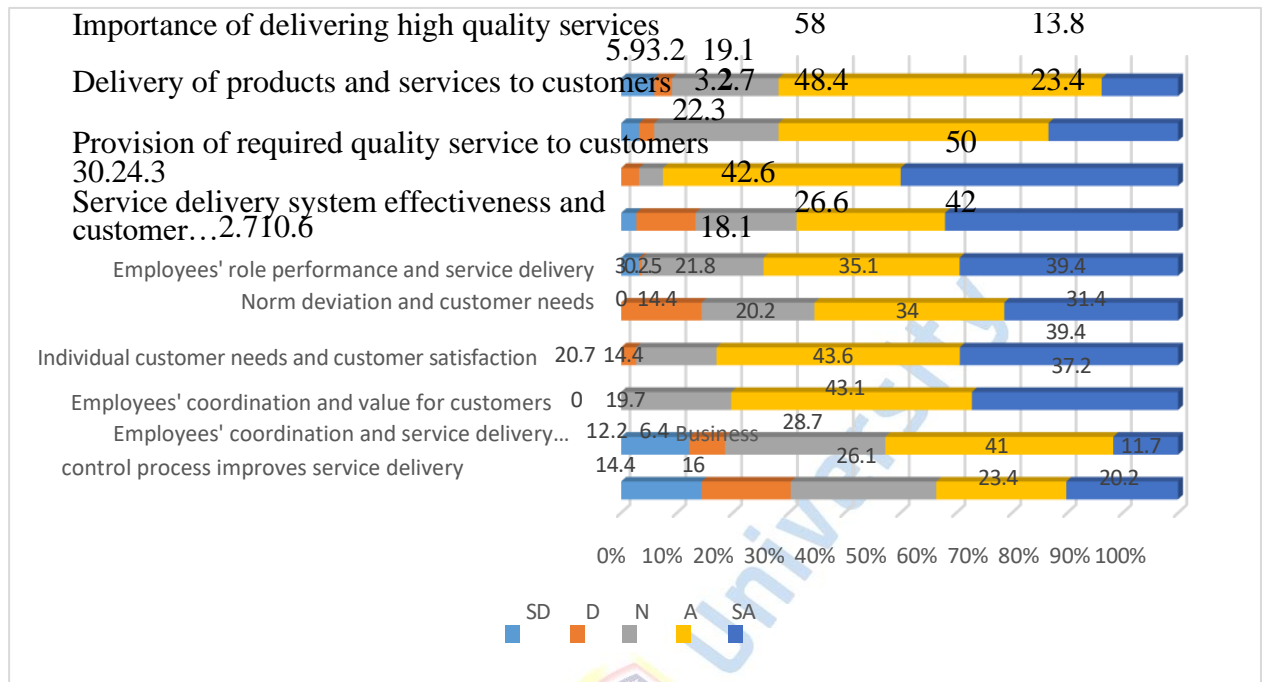
We accomplish customer satisfaction by understanding individual needs.	188	4.21	.781
Our staff' coordination creates value for our consumers	188	4.17	.735
Employees' coordination in the business has increased our service delivery efficiency	188	3.35	1.150
We consistently improve our business control process and service delivery.	188	3.18	1.324

**Source:** Field Data, (2024)

The item offering high-quality services is a key goal of our company had a mean of 3.72, indicating that it was partially accurate. The item our service delivery methods ensure delivery of items or services to our clients had a mean of 3.85, indicating that it was partially correct. The item "the primary purpose of our service delivery systems is to provide the required quality service to customers" received a mean of 4.38, indicating that this was true. The item "Our service delivery system has improved our customer experience" earned a mean score of 3.96, indicating that it was partially true. The item Employees' role performance is regarded a primary driver of service delivery efficacy in the business got a mean of 4.06, indicating that it was correct.

The item in which our personnel deviated from the norm in order to meet consumer requests got a mean of 3.83, indicating that this was partially correct. The item "Customer satisfaction is achieved through our ability to understand individual customer needs" had a mean of 4.21, indicating that this was correct. The item "Our employees' coordination generates value for our customers" had a mean of 4.17, indicating that this was correct. The item "Employee coordination has increased service delivery efficiency" received a mean of 3.35, indicating that it was partially true. The item "Our business control process continuously improves our service delivery" had a mean of 3.18, indicating that it was partially true.

#### 4.4.2 Frequency Analysis for Service Delivery Systems and Performance of Small and Medium Enterprises



**Figure 8: Frequency Analysis for Service Delivery Systems and Performance of Small and Medium Enterprises**

**Source:** Field Data, (2024)

The item "delivering high quality services is an important pursuit of our business" with 58% of respondents agreeing, 19.1% indifferent, 13.8% agreed, 5.9% strongly disagreed, and 3.2% disagreed, indicating that delivering high quality services was an important priority of the businesses. The item our service delivery systems ensure delivery of products or services to our customers had 48.4% of respondents agreeing, 23.4% strongly agreeing, 22.3% neutral, 3.2% strongly disagreeing, and 2.7% disagreeing, indicating that the businesses' service delivery systems ensured delivery of products or services to their customers.

The item "The primary purpose of our service delivery systems is to provide the required quality service to customers" had 50% strongly agreeing, 42.6% agreeing, 4.3% neutral, and 3.2% disagreeing; this means that the primary purpose of the businesses' service delivery

systems was to provide the required quality service to customers. The item our service delivery system effectiveness has improved our customer experience had 42% of respondents strongly agreeing, 26.6% agreeing, 18.1% neutral, 10.6% disagreeing, and 2.7% strongly disagreeing; this indicates that the businesses' service delivery system effectiveness has improved their customers' experience.

Employees' role performance is considered a major determinant of service delivery effectiveness in the business, with 39.4% strongly agreeing, 35.1% agreeing, 21.8% neutral, 3.2% strongly disagreeing, and 0.5% disagreeing; this means that employees' role performance was considered a major determinant of service delivery effectiveness in the businesses. The item our employees stray from the norm to serve customer demands had 34% of the respondents agreeing, 31.4% strongly agreeing, 20.2% neutral, and 14.4% disapproving; this suggests that the firm employees deviated from the norm to satisfy customer wants. Customer satisfaction is achieved through our ability to understand individual customer needs was agreed upon by 43.6% of respondents, with 39.4% strongly agreeing, 14.4% neutral, and 2.7% disagreeing; this indicates that customer satisfaction was achieved through the businesses' ability to understand individual customer needs.

The item our employees' coordination produces value for our customers received 43.1% of respondents agreeing, 37.2% strongly agreeing, and 19.7% neutral, indicating that employees' coordination had provided value for the company's consumers. According to the survey results, 41% of respondents agreed, 28.7% were neutral, 12.2% strongly disagreed, 11.7% strongly agreed, and 6.4% disagreed, indicating that employee coordination improves service delivery efficiency in businesses.

The item our business control process continuously improves our service delivery had 26.1% of respondents neutral, 23.4% agreeing, 20.2% strongly disagreeing, 16% disagreeing, and

14.4% strongly disagreeing, indicating that the businesses' control process has continuously improved their service delivery.

#### 4.4.3 Correlation Analysis and Service Delivery Systems and SME' s Performance

Table 9 shows the correlation analysis used to investigate the influence of service delivery methods on SMEs' performance. The study found a substantial positive correlation ( $r=0.322$ ,  $p<0.05$ ) between service delivery systems and SMEs' performance.

**Table 9: Correlations for Service Delivery Systems and Performance of Small and Medium Enterprises**

		SME's Performance	Service Delivery Systems
SME's Performance	Pearson Correlation	1	
	Sig. (2-tailed)		
Service Delivery Systems	Pearson Correlation	.322**	1
	Sig. (2-tailed)	.000	

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

#### 4.4.4 Regression Analysis for Service Delivery Systems and Performance of Small and Medium Enterprises Model

Table 10 summarizes the findings from the regression model between service delivery systems and SMEs' performance. The study found that service delivery methods explained 9.9% (adjusted  $R^2 = 0.098$ ) of the variation in SMEs' performance. The remaining 90.1% is accounted for by factors not included in the study and the error term.

**Table 10: Model Summary for Service Delivery Systems and Performance of Small and Medium Enterprises**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.322 <sup>a</sup>	.103	.098	.50075

a. Predictors: (Constant), Service Delivery Systems

b. Dependent Variable: Performance of SMEs

#### 4.4.5 ANOVA for Service Delivery Systems and Performance of Small and Medium Enterprises

Table 11 displays the results of the ANOVA between service delivery systems and SMEs' performance. The study found a substantial positive linear association ( $F(1,187) = 21.571, p < 0.05$ ) between service delivery methods and SMEs' performance.

**Table 11: ANOVA for Service Delivery Systems and Performance of Small and Medium Enterprises**

ANOVA <sup>b</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.408	1	5.408	21.571	.000 <sup>b</sup>
Residual	46.642	186	.252		
Total	52.050	187			

a. Predictors: (Constant), Service Delivery Systems  
b. Dependent Variable: Performance of SMEs

#### 4.4.6 Regression Coefficients between Service Delivery Systems and SME's Performance

Table 11 shows the results of the regression coefficients between service delivery systems and SMEs' performance, as follows:

$$\text{Performance of SMEs} = 2.183 + 0.368 \text{ Service Delivery Systems} + \varepsilon$$

The table indicates that service delivery systems have a significant impact on the performance of SMEs in Nyandarua County ( $\beta = 0.368, t(188) = 4.646, p < .05$ ). A unit change in service delivery systems can improve performance by 36.8%. The T-Test results show that service delivery methods significantly affect the performance of SMEs in Nyandarua County ( $t(188) = 4.646, p < .05$ ).

**Table 12: Regression Coefficients between Service Delivery Systems and Performance of Small and Medium Enterprises**

		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	Constant	2.183	.321		6.823	.000
	Service Delivery Systems	.368	.078	.322	4.646	.000

a. Dependent Variable: Performance of SMEs

b. Performance of SMEs = 2.183 + 0.368 Service Delivery Systems + ε

#### 4.5 Technology and Performance of Small and Medium Enterprises

This part focuses on a detailed descriptive and inferential analysis of the third research question, which sought to determine the extent to which technology affects the performance of SMEs in Nyandarua County, Kenya.



##### 4.5.1 Descriptive Analysis for Technology and SME' s Performance

According to the study findings on the extent to which technology influenced the performance of SMEs in Nyandarua County, Kenya, the most notable study item that all study participants largely agreed on was that human service in the business has stronger influences on customer satisfaction (mean = 4.47; standard deviation = 0.642). It also shows that the least agreed-upon item was: our company has utilized SST to respond to a shift in customer behavior (mean = 1.98; SD = 1.096). Table 12 presents an overview of the study findings.

**Table 13: Descriptive Analysis for Technology and Performance of Small and Medium Enterprises**

	N	Mean	SD
We have adopted Self-Service Technologies to adapt to changing client behavior.	188	1.98	1.096
Our customers enjoy face-to-face interactions with businesses.	188	4.25	.776
Our personnel excel at creating unforgettable customer experiences.	188	3.96	.851
Technology has given our business a significant competitive advantage over competitors.	188	3.92	.681
Customer satisfaction is primarily influenced by employee interactions in our organization	188	4.18	.862
Our service staff' attitudes have a big impact on client perception.	188	4.24	.658
Customer happiness is strongly influenced by human service in company.	188	4.47	.642
Employee behavior is a key factor in distinguishing between exceptional and standard business services.	188	4.18	.927
Our business's commitment to customer satisfaction has increased client loyalty.	188	3.95	.888
To build long-term relationships with customers, we prioritize customer delight.	188	3.94	.982

**Source:** Field Data (2024)

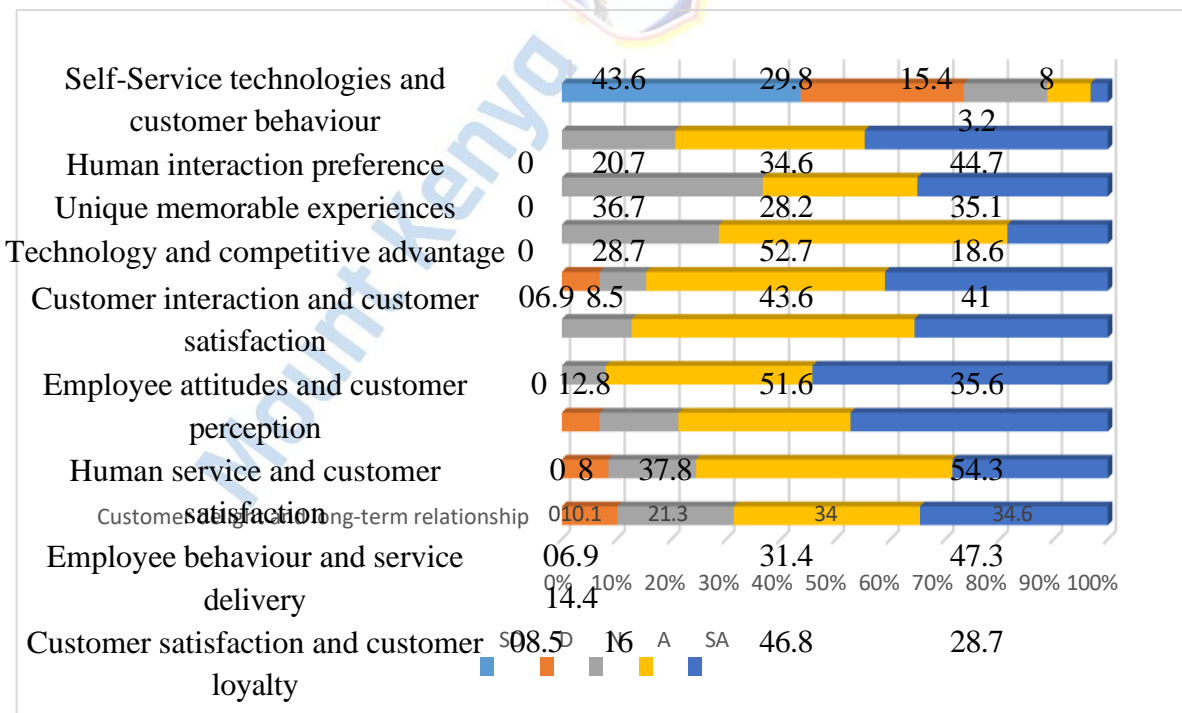
The item for which our company adopted SST in response to the shift in customer behavior had a mean of 1.96, indicating that this was incorrect. The item in which our clients prefer human interaction during their interactions with the firm had a mean of 4.25, indicating that this was correct. The item our personnel are effective in giving clients with distinctive and memorable experiences received a mean of 3.96, indicating that it was partially correct.

The item technology has given our company a significant competitive advantage over our competitors had a mean of 3.92, indicating that this was partially correct. The item staff interaction in our firm is the major factor influencing customer satisfaction had a mean of 4.18, indicating that this was correct. The item "Our service employees' attitudes significantly affect our customers' perceptions" received a mean of 4.24, indicating that this was correct.

The item "human service in business has stronger influences on customer satisfaction" received a mean of 4.47, indicating that this was correct. The item staff behavior is the primary differentiator between exceptional and average service in the business got a mean of 4.18, indicating that this was correct. The item consumer happiness in our firm has favorably influenced customer loyalty got a mean of 3.95, indicating that it was partially correct. The item "To sustain a long-term relationship with our customers, we focus on customer delight" had a mean of 3.94, indicating that this was partially accurate.

#### 4.5.2 Frequency Analysis for Technology and SME' s Performance

This section presents the frequency analysis findings for the third study question, which intended to determine the extent to which technology affects the performance of SMEs in Nyandarua County, Kenya. Figure 9 shows that the research items were more likely to receive the majority of agreed-upon responses.



**Figure 9: Frequency Analysis for Technology and Performance of Small and Medium Enterprises**

Source: Field Data (2024)

The item on which our company has implemented SST to respond to the shift in customer behavior received 43.6% strongly disagreeing, 29.8% disagreeing, 15.4% neutral, 8% agreeing, and 3.2% strongly agreeing; this indicates that the businesses had not implemented SST to respond to the shift. Customers appreciate human interaction with firms (44.7% strongly agree, 34.6% agree, and 20.7% indifferent).

Our employees are effective in providing customers with unique and memorable experiences received 36.7% neutral, 35.1% strongly agreeing, and 28.2% agreeing responses, indicating that employees in the businesses were effective in providing customers with unique and memorable experiences. The item "technology has offered our business a great competitive advantage against our competitors" received 52.7% agreement, 28.7% neutrality, and 18.6% strong agreement, indicating that technology had provided firms with a significant competitive advantage over their competitors 43.6% of respondents agreed, 41% strongly agreed, 8.5% were neutral, and 6.9% disagreed with the statement that employee interaction in our business is the dominant factor that affects customer satisfaction.

The item the attitudes of our service employees significantly affect the perception of our customers had 51.6% of respondents agreeing, 35.6% strongly agreeing, and 12.8% neutral, indicating that the attitudes of the businesses' service employees significantly affected the perception of their customers. 54.3% of respondents strongly agreed with the statement that human service in businesses has stronger affects on customer satisfaction, 37.8% agreed, and 8% were neutral, implying that human service in businesses has stronger influences on customer satisfaction.

Employee behavior was the main differentiator between extraordinary and ordinary service in businesses, with 47.3% strongly agreeing, 31.4% agreeing, 14.4% neutral, and 6.9% disagreeing. The statement, "Customer satisfaction in our business has positively influenced

customer loyalty," had 46.8% of respondents agreeing, 28.7% strongly agreeing, 16% neutral, and 8.5% disapproving, indicating that customer satisfaction in businesses had influenced customer loyalty.

To maintain an enduring relationship with our clients, we focus on customer delight had 34.6% of respondents strongly agreeing, 34% agreeing, 21.3% neutral, and 10.1% disagreeing; this means that businesses focused on customer delight to maintain a long-term relationship with their clients.

#### 4.5.3 Correlation Analysis for Technology and SME' s Performance

The impact of technology on the performance of SMEs was investigated using the correlation analysis shown in Table 14. The study found a substantial positive linear link ( $r=0.259$ ,  $p<0.05$ ) between technology and SMEs' performance.

**Table 14: Correlations for Technology and Performance of Small and Medium Enterprises**

		SME's Performance	Technology
SME's Performance	Pearson Correlation	1	
	Sig. (2-tailed)		
Technology	Pearson Correlation	.259**	1
	Sig. (2-tailed)	.000	

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

#### 4.5.4 Regression Analysis for Technology and Performance of Small and Medium Enterprises Model

Table 15 summarizes the regression model's findings on technology and SMEs' performance. The study found that technology explained 6.3% (adjusted  $R^2 = 0.063$ ) of the variation in SMEs' performance. The remaining 93.7% is accounted for by other factors not included in the analysis, as well as the error term.

**Table 15: Model Summary for Technology and Performance of Small and Medium Enterprises**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.259 <sup>a</sup>	.068	.063	.51106

a. Predictors: (Constant), Technology

b. Dependent Variable: Performance of SMEs

#### ANOVA for Technology and Performance of Small and Medium Enterprises

Table 16 summarizes the ANOVA results between technology and SMEs' performance. The study found a positive and substantial linear relationship between technology and SMEs' performance ( $F(1,187) = 13.291, p < 0.05$ ), indicating that technology was a significant contributor.

**Table 16: ANOVA for Technology and Performance of Small and Medium Enterprises**

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.472	1	3.471	13.291	.000 <sup>b</sup>
	Residual Total	48.578	186	.261		
		52.050	187			

a. Predictors: (Constant), Technology

b. Dependent Variable: Performance of SMEs

#### 4.5.5 Regression Coefficients between Technology and SME's Performance

Table 16 displays the results of the regression coefficients between technology and the performance of SMEs as follows:

The data indicates that technology has a considerable impact on the performance of SMEs in Nyandarua County ( $\beta = 0.288, t(188) = 3.645, p < 0.05$ ), with a unit change in technology potentially improving performance by 28.8%. The T-Test results show that technology

significantly impacts the performance of SMEs in Nyandarua County ( $t(188) = 3.645, p < .05$ ).

$$\text{Performance of SMEs} = 2.536 + 0.289 \text{ Technology} + \epsilon$$

**Table 17: Regression Coefficients between Technology and Performance of Small and Medium Enterprises**

		Coefficients <sup>a</sup>			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta		
1	Constant	2.537	.312		8.161	.000
	Technology	.288	.078	.258	3.645	.000

a. Dependent Variable: Performance of SMEs

b. Performance of SMEs = 2.537 + 0.288 Technology +  $\epsilon$

#### 4.5.6 Correlation Analysis for Strategic Service Innovation Factors and SME's Performance

Table 18 shows the correlation analysis used to determine the impact of strategic service innovation factors (customer interface, service delivery systems, and technology) on the performance of SMEs. The study found a positive and significant linear relationship between strategic service innovation factors (customer interface, service delivery systems, and technology) and SMEs' performance ( $r=0.322, p<0.05$ ;  $r=0.258, p<0.05$ ), indicating that these factors were significant in improving SMEs' performance.

**Table 18: Correlation Analysis for Strategic Service Innovation Factors and Performance of Small and Medium Enterprises**

	SME's Performance	Customer Interface	Service Delivery Systems	Technology
SME's Performance	1			
Customer Interface	.342** .000	1		
Service Delivery Systems	.322** .000	.570** .000	1	
Technology	.259** .000	.220** .000	.119 .103	1

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

#### 4.5.7 Regression Analysis for Strategic Service Innovation Factors and Performance of Small and Medium Enterprises Model

Table 19 summarizes the regression model results for strategic service innovation elements (user interface, service delivery systems, and technology) and SMEs' performance. Strategic service innovation elements (customer interface, delivery systems, and technology) explained 16% (adjusted  $R^2 = 0.160$ ) of the variance in SMEs' performance. The remaining 84% is accounted for by factors not included in the study, as well as the error term.

**Table 19: Model Summary for Strategic Service Innovation Factors and Performance of Small and Medium Enterprises**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.417 <sup>a</sup>	.174	.161	.48368

#### ANOVA for Strategic Service Innovation Factors and SME's performance

Table 20 shows the ANOVA results for strategic service innovation components (user interface, service delivery systems, and technology) and SMEs' performance. The study found a positive and significant linear relationship between strategic service innovation

factors (customer interface, service delivery systems, and technology) and SMEs' performance ( $F(3,187) = 12.832, p < 0.05$ ). This suggests that these factors were significant in influencing SMEs' performance.

**Table 20: ANOVA for Strategic Service Innovation Factors and Performance of Small and Medium Enterprises**

ANOVA <sup>b</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	9.004	3	3.001	12.833	.000 <sup>b</sup>
Residual	43.046	184	.233		
Total	52.050	187			

a. Predictors: (Constant), Customer Interface, Service Delivery Systems, and Technology

b. Dependent Variable: Performance of SMEs

### Regression Coefficients between Strategic Service Innovation Factors and SME's performance

Table 21 shows the results of the regression coefficients between strategic service innovation components (customer interface, service delivery systems, and technology) and SMEs' performance as follows.

$$\text{Performance of SMEs} = 0.900 + 0.233 \text{ Customer Interface} + 0.228 \text{ Service Delivery Systems} + 0.218 \text{ Technology} + \varepsilon$$

When strategic service innovations are combined, customer interface retains its influence on the performance of SMEs in Nyandarua County, making it a somewhat significant variable ( $\beta = 0.233, t(188) = 2.114, p < .05$ ). A unit change in customer interface in these businesses could improve their performance by 23.3%. The T-test results show that customer interface

has a substantial impact on the performance of SMEs in Nyandarua County ( $t(188) = 2.114$ ,  $p < .05$ ).

When all strategic service innovations are combined, service delivery systems retain their influence on the performance of SMEs in Nyandarua County, making it somewhat significant ( $\beta = 0.228$ ,  $t(188) = 2.438$ ,  $p < .05$ ), where a unit change in service delivery systems could improve their performance by 22.7%. The T-test results show that service delivery methods have a substantial impact on the performance of SMEs in Nyandarua County ( $t(188) = 2.437$ ,  $p < .05$ ).

Technology has a considerable influence on the performance of SMEs in Nyandaua County ( $\beta = 0.218$ ,  $t(188) = 2.852$ ,  $p < .05$ ), with a unit change in technology improving business performance by 21.8%. The T-Test results show that technology significantly impacts the performance of SMEs in Nyandarua County ( $t(188) = 2.852$ ,  $p < .05$ ).

**Table 21: Regression Coefficients between Strategic Service Innovation Factors and Performance of Small and Medium Enterprises**

		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	Constant	.900	.451		1.992	.049
	Customer Interface	.233	.113	.175	2.114	.037
	Service Delivery Systems	.228	.093	.198	2.438	.017
	Technology	.218	.078	.197	2.852	.006

a. Dependent Variable: Performance of SMEs

b. Performance of SMEs = 0.900 + 0.233 Customer Interface + 0.228 Service Delivery Systems + 0.218 Technology +  $\epsilon$

## CHAPTER FIVE

### DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter includes a detailed discussion, conclusion, and recommendations for the strategic service innovation influence on the performance of SMEs in Kenya's Nyandarua County. The chapter follows the chronology of the research questions, which investigated the extent to which customer interface influences SMEs' performance, the extent to which SDS influences SMEs' performance, and the extent to which technology influences SMEs' performance in Kenya's Nyandarua County.

#### 5.1 Summary of the findings

The goal of this study was to look at how strategic service innovation affects the performance of SMEs in Kenyan counties. The study was guided by the following research questions. How much does the customer interface effect the performance of SMEs in Nyandarua County, Kenya? How much do service delivery systems influence the performance of SMEs in Nyandarua County, Kenya? And how much does technology influence the performance of SMEs in Nyandarua County, Kenya?.

The study found a favorable and substantial linear association between customer interface and SMEs' performance ( $r=0.342$ ,  $p<0.05$ ). A regression analysis of the first research question found that customer interface had an impact on the performance of SMEs in Nyandarua County ( $\beta = 0.443$ ,  $t(188) = 4.801$ ,  $p<0.05$ ). The study found a substantial positive correlation ( $r=0.322$ ,  $p<0.05$ ) between service delivery systems and SMEs' performance.

Regression analysis for the second research question revealed that service delivery systems influenced the performance of SMEs in Nyandarua County ( $\beta = 0.368$ ,  $t(188) = 4.646$ ,  $p<0.05$ ). The study found a favorable and substantial linear link between technology and

SMEs' performance ( $r=0.259$ ,  $p<0.05$ ). Regression study showed that technology influence on SMEs performance of in Nyandarua County ( $\beta = 0.288$ ,  $t(188) = 3.645$ ,  $p < .05$ ).

The study found that business services were easily available to customers who felt at ease in these establishments. The staff of the company always guided lost consumers to the correct location and provided services for which they were educated. Before providing any service, the company's personnel understood the needs of its consumers. The appearance of the business and the friendliness of its staff influenced client satisfaction since these employees provided personalized attention to them. After leaving their premises, the firms requested client feedback and used follow-ups to eliminate bad customer perceptions.

The study's findings revealed that firms prioritized providing high-quality services since their SDS ensured efficient delivery of items or services to their clients. The major goal of the SDS was to provide high-quality services to clients, hence improving their overall experience. Employees' role performance was regarded as a crucial factor of service delivery efficacy in organizations, since they strayed from the usual to meet the wants of their clients. Consumer satisfaction was thus accomplished by the enterprises' ability to understand specific consumer needs, and staff worked together to provide value for their clients. Employees' collaboration in the firm had raised their service delivery efficiency, and the business control procedure continuously improved their service delivery.

The study's findings revealed that businesses did not deploy SST to respond to the shift in consumer behavior since their customer's valued human interaction throughout their interactions with the enterprises. Their personnel were effective in giving customers with unique and memorable experiences, and the available technology gave these enterprises a significant competitive advantage over their competitors. Employee engagement in these firms was the most important factor influencing customer happiness, as the attitudes of their

service staff had a substantial impact on their customers' perceptions. Human service in organizations had a greater impact on customer satisfaction since staff behavior was the primary distinguishing factor between outstanding and regular service. Client happiness had a good impact on client loyalty, and in order to maintain a long-term relationship with their customers, these organizations focused on customer delight.

## **5.2 Discussion**

### **5.2.1 Customer Interface and the SME's performance**

Customers could easily access the businesses' offerings, according to the survey. The results of the study support the conclusions of Biemans and Griffin (2018), who claim that one of the earliest encounters between clients and SMEs takes place during the access phase, and that the more easily clients can reach the SMEs they want, the more positively they would see the company. De Oliveira-Sousa et al. (2020) assert that more work should be done to guarantee that business services and products are conveniently available, since this would provide clients a favorable initial impression.

The results of the study showed that business customers were made to feel at home there. The results of this study support those of Bitran and Lojo (2021), who contend that welcoming and acknowledging consumers' presence are the main goals of the check-in phase. Knowing and using the names of regular customers can greatly enhance their experience receiving service and even encourage them to come back time and time again. Lin (2018) asserts that it is crucial to greet customers if they cannot be served immediately in order to prevent them from feeling ignored and, ideally, to let them know how long they will have to wait.

Businesses consistently relocated lost customers to the appropriate place, according to this poll. The results of this study support those of Taghizadeh et al. (2019), who contend that the check-in phase starts the service interaction and ought to provide clients with some

information. They can minimize needless delays by verifying that they are in the right place or promptly being redirected if they are not. Employees must be sufficiently knowledgeable to assess whether a customer's needs can be satisfied and to know how to best assist them during the service procedure. A customer should be sent to the right person or business that can provide the required services if she is unable to be helped for whatever reason.

The poll indicated that the staff members rendered services for which they had been trained. These results support the conclusion drawn by Dotzel and Shankar (2019) that employees shouldn't try to provide services for which they lack the necessary training or resources. It is better to direct clients to more suitable divisions or businesses rather than offering them poor quality services to keep their business.

The results of the study showed that before offering any services, company employees knew what their clients wanted. The results of the study support Lin's (2018) assertion that it is essential to ascertain the client's desires prior to initiating service delivery. The server can then respond by explaining what the business provides and, if relevant, how the client should proceed. Idiotic professionals usually rush through this stage, presuming they know what the consumers want and disregarding the uniqueness and unforeseen desires that the clients bring to the meeting, claim Bitran and Lojo (2021).

This study found that customer satisfaction is influenced by how businesses look. This result is in line with Sadikoglu and Zehir's (2019) assertion that tangibles—such as the physical look of buildings, machinery, staff, and communication materials—represent an extra aspect of quality. Since they act as quality indicators for people who are not familiar with the business, these may be more important to potential customers than to current ones.

According to the survey, consumer happiness was impacted by staff civility. These results support the claim made by Dotzel and Shankar (2019) that assurance encompasses a wide range of lower-level quality attributes, such as competence, civility, credibility, and security.

The ability of the server to deliver the service with the required abilities and expertise is what determines competence. While credibility refers to the perceived dependability, trustworthiness, and honesty of the service provider, server civility includes courtesy, respect, consideration, and friendliness.

The results of the survey showed that company employees gave each customer personalized attention. The study's conclusions support those of Li and Hsu (2018), who contend that empathy is the firm's compassionate, tailored approach to each client. It includes communication—both listening to the customer and providing information in a language they can comprehend—knowing the customer, which means trying to understand them and their needs, and accessibility—the ease with which the customer can get in touch with the business.

According to this study, businesses asked for feedback from customers after they had departed. Disengagement is a crucial issue to take into account since it represents the customer's ultimate perception of the company, claim Taghizadeh et al. (2019). Since the client's impression of the service is still fresh in their mind, this is a great time to ask for feedback (Hernández-Linares et al., 2021). Additionally, it offers a crucial chance to correct any errors while preserving the advantages of face-to-face communication.

According to the poll, companies utilized follow-ups to get rid of negative customer perceptions. The results are in line with Kang (2017), who claims that companies need to take drastic and unanticipated measures to rectify a negative reputation once consumers feel they have been gravely offended or inconvenienced. It is important to understand that, even if a business may satisfy customers almost always, there are those moments that cause them to feel strongly and are very hard to forget (Bitran and Lojo, 2021).

### **5.2.2 Service Delivery Systems and Performance of Small and Medium Enterprises**

The delivery of goods or services to customers was guaranteed by the companies' SDS, according to this study. The results support Blommerde-Winters' (2022) findings that SDS are groups of interdependent components that work together, including personnel, goods, and processes that are essential to providing services. Feng et al. (2020) define it as a structure or system that provides goods or services to clients who are in need. This framework may also contain channels of interaction and communication between a client and a service provider.

According to the study, the firms' SDS's main objective was to provide clients with the required level of quality service. According to Martínez-Caro et al. (2020), an SDS's main objective is to offer customers quick, excellent, and reasonably priced services. This covers the usage of people, processes, actual structures, and machinery. To close the service quality gap—the difference between actual service delivery and service quality specifications—the SDS is the process by which service providers try to achieve the quality standards established by management, according to Poku et al. (2019).

The results of the study showed that the effectiveness of SDS improved the customer experience for enterprises. According to Witell et al. (2021), SDS should be able to provide a number of positive results, such as lower costs, improved availability of effective operations, increased service quality, and an ideal customer experience. This finding is in line with their findings. Customers are far more likely to rate a service favorably when the business successfully delivers the value that was promised to them, so an effective SDS must lead to high levels of service quality, both in terms of actual technical quality and customer perceptions, according to Zeithaml et al. (2021).

The results of this study indicate that role performance by workers is a strong predictor of service delivery success in businesses. The results are in line with those of Blommerde-Winters (2022), who claims that role performance and adaptability of employees are key factors that determine the effectiveness of SDSs since they represent the SDS's most significant result, which is its capacity to satisfy customer needs and generate value for customers. According to Odoom et al. (2019), the coordination and control of these service processes should also be taken into account when conceptualizing SDS effectiveness because an SDS is composed of several interdependent service processes that are arranged hierarchically and integrated within a particular process architecture.

According to the poll, corporate staff went above and beyond to accommodate customer demands. This result supports the assertion made by Witell et al. (2021) that employees' capacity for adaptation should not be confused with sporadic variations in their performance and behavior. This is due to the fact that service delivery only involves variations that are meant to satisfy specific client expectations. Higher flexible workers, especially those with higher authority, might find it easier to provide each client individualized attention and so satisfy their unique needs, claim Su and Kunkel (2019).

The study's conclusions showed that by knowing particular client desires, businesses may achieve customer happiness. These results support the findings of Groza et al. (2021), who found a strong correlation between service quality and frontline employees' ability to adjust to the unique behavior of each customer. Odoom et al. (2019) state that happy clients frequently attribute their happiness mostly to staff members' ability to comprehend their unique needs and offer them a customized service.

According to this study, corporate workers' cooperation benefited their customers. These results are in line with those of Kang (2019), who points out that service providers in particular are always working to enhance employee communication and maximize

departmental and team cooperation. This is due to the fact that better staff coordination not only enhances the general organizational function of the business but also enables businesses to offer value for their customers.

According to the study, staff cooperation increased the effectiveness of service delivery in businesses. The results of this study are in line with those of Hernández-Linares et al. (2021), who contend that preventing managerial, organizational, and operational failures guarantees the SDS's efficacy and boosts its efficiency, which in turn leads to higher customer evaluations. Regarding the latter, the success of service delivery depends on front-line and back-office staff coordinating as efficiently as possible.

The results of the study showed that the firms' control procedures were continuously enhancing the quality of their services. Implementing a control procedure consistently improves customer service delivery and quality, according to Martínez-Caro et al. (2020). Additionally, according to Groza et al. (2021), any increase in process control would lead to more effective and efficient delivery operations, which will improve customer service, since it is a crucial component of the SDS.

### **5.2.3 Technology and Performance of SME**

This study found that organizations had not implemented SST to respond to the shift in customer behavior. The findings of this study vary from those of Kervenoael et al. (2020), who found that the SME sector is using increasingly complex SST in response to changing consumer behaviors. SST applications' main merits originate from their capacity to personalize service experiences by recording customer preferences, enhancing service options, and expanding connections between customers and enterprises.

The study found that business clients valued human interaction when dealing with

enterprises. The study's findings are consistent with those of Chan and Tung (2019), Some claim that consumers may prefer human interaction during service interactions because they see them as social experiences.

Unique and genuine human connection, including little gestures by staff members, may set a firm apart from competitors and help it build a distinctive brand image, claim Kim et al. (2021).

Business staff were effective in providing customers with distinctive and unforgettable experiences, according to the poll.

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Business staff were effective in providing customers with distinctive and unforgettable experiences, according to the poll.

According to Kim et al. (2021), employees' little gestures and unique and authentic personal connection may help a company stand out from the competition and develop a unique brand image.

The survey found that company employees were successful in giving clients unique and memorable experiences.

Additionally, according to Kervenoael et al. (2020), humans are capable of self-learning, which implies that as service personnel gain work experience, they continuously learn and develop their service skills. This enables them to develop innovative ways of serving based on each individual service encounter in order to meet the various needs of clients and offer distinctive experiences.

According to this report, firms have a major competitive edge over rivals thanks to technology. The results of the study are in line with Wang et al. (2017), who claim that while

rivals are likely to have access to similar resources and technology, technology does not give SMEs' services a competitive edge.

Since innovation as creativity often originates from the creative discretion of frontline people during the service encounter, human service is seen as a critical cornerstone for service innovation (Larivière et al., 2017).

According to the survey, the most significant factor affecting customer satisfaction in businesses was staff involvement. The results of the study support the assertion made by Martin-Rios et al. (2019) that the primary factor affecting customer satisfaction and joy is human connection.

The most desired result of developing a genuine emotional bond with clients may be achieved through especially pleasant human interaction, claim Chiang and Trimi (2020). The results of the study showed that customer perception was significantly impacted by the attitudes of an organization's service personnel. These results are in accordance with those of Tai et al. (2021), who discovered that the attitudes and actions of frontline service providers significantly affect how customers perceive and interpret new service interactions. Consumers want for value in every service encounter by having distinctive experiences, especially in the experiential era.

According to this study, client happiness in businesses is more significantly impacted by human service. According to Ryu and Lee (2018), human service may have a bigger influence on customer happiness and satisfaction than technology. These data support their conclusions. Gaining a deeper understanding of how technology and human service impact customer satisfaction and joy is essential for industry managers to make better strategic choices.

Human staffs fared better than service robots in enhancing experiences and building emotional bonds with customers, claim Chan and Tung (2019). The survey found that

employee behavior was the primary factor between remarkable and regular service in firms. The results corroborate the findings of Luo et al. (2019), who contend that the main characteristics that differentiate extraordinary service from ordinary service are the proactive and quick response capabilities, elaborative thinking skills, keen sensitivity, and empathetic and attentive behaviors of frontline staff. In addition to traditional communication skills, social intelligence requires anthropological expertise that allows employees to "read" and comprehend users' needs and satisfaction with different aspects of service by analyzing their behavior during service encounters (Shi et al., 2019).

The study's findings demonstrated that customer satisfaction in firms had a favorable influence on customer loyalty. The findings are consistent with those of Tai et al. (2021), Some contend that satisfaction may be attained when consumers' perceptions surpass their expectations, boosting their incentive to remain with the business in order to preserve their positive experience and ensure its profitability.

Customer satisfaction has long been believed to have a positive impact on promoting desired customer loyalty behaviors including repeat business and positive word-of-mouth, according to Jeon et al. (2020).

According to the findings of this survey, firms prioritized customer delight in order to maintain long-term client relationships. These findings differ from those of Kervenoael et al. (2020), who discovered that in order to maintain a long-term relationship with customers, In order to guarantee the long-term loyalty of their consumers, SMEs must go above and beyond to achieve customer happiness, which may create a strong emotional relationship with them. Some academics describe pleasure as a pure emotional aspect that may be attained by satisfying consumers' higher-order, hedonic (enjoyment-related) requirements. This can lead

to the elicitation of powerful positive feelings like joy, excitement, and exhilaration, according to Jeon et al. (2020).

## **5.3 Conclusions**

### **5.3.1 Customer Interface and SME's Performance**

The study reveals that the business services were easily available to customers who felt welcome at these establishments. The firm staff always guided lost consumers to the correct spot and gave services that they were trained to provide. Before providing any service, the company's personnel understood the needs of its consumers. The appearance of the business and the friendliness of its staff influenced client satisfaction since these employees provided personalized attention to them. After leaving their premises, the firms requested client feedback and used follow-ups to eliminate bad customer perceptions.

### **5.3.2 Service Delivery Systems and SME's Performance**

This study concludes that delivering high quality services was an important pursuit of the businesses since their SDS ensured effective delivery of products or services to their Customers. The primary purpose of the SDS was to provide the required quality services to customers which had improved their customers' experience. Employees' role performance was considered major determinants of service delivery effectiveness in the businesses, since they deviated from the norm in order to satisfy their customers' needs. Customer satisfaction was thus achieved through the ability of the businesses to understand individual customer needs, and the employees collaborated to generate value for their customers. Employees' coordination in the business had increased their service delivery efficiency, while the business control process continuously improved their service delivery.

### **5.3.3 Technology and Performance of Small and Medium Enterprises**

The study concludes that the businesses had not implemented SST to respond to the shift in customer behavior because their customers preferred human interaction during their encounter with the businesses. Their employees were effective in providing customers with unique and memorable experiences, and available technology had offered these businesses a great competitive advantage against their competitors. Employee interaction in these businesses was the dominant factor that affected customer satisfaction, since the attitudes of their service employees significantly affected the perception of their customers.

Human service in the businesses had stronger influences on customer satisfaction because employee behaviour was the main differentiator between extraordinary and ordinary service in the businesses. Customer satisfaction in the businesses had positively influenced customer loyalty, In order to guarantee the long-term loyalty of their consumers, SMEs must go above and beyond to achieve customer happiness, which may create a strong emotional relationship

with them. Some academics describe pleasure as a pure emotional aspect that may be attained by satisfying consumers' higher-order, hedonic (enjoyment-related) requirements. This can lead to the elicitation of powerful positive feelings like joy, excitement, and exhilaration, according to Jeon et al. (2020).

## **5.4 Recommendations**

### **5.4.1 Recommendations for Improvement**

#### **5.4.1.1 Customer Interface and Performance of Small and Medium Enterprises**

According to the study, SMEs' performance was significantly impacted by their client interface, so it recommends that managers/owners of SMEs in Nyandarua County structure their customer interactions into phases such as access, check-in, diagnosis, service delivery, check-out, and follow-up. This would ensure that they have consistent and effective contacts with their clients, allowing them to provide individualized services and improve their performance.

#### **5.4.1.2 Service Delivery Systems and Performance of Small and Medium Enterprises**

According to the study, SDS significantly affects SMEs' performance and it thus suggests that managers/owners of SMEs in Nyandarua County plan the process of delivering their products and services to clients. This would ensure that they successfully implement their actual plans, allowing for consistent and reliable service delivery, hence increasing their performance.

#### **5.4.1.3 Technology and Performance of Small and Medium Enterprises**

The study's findings suggested that technology has a substantial impact on the performance of SMEs, and it thus recommended that managers/owners of SMEs in Nyandarua County embrace and deploy SST applications in their operations. This would boost their ability to tailor service experiences by recording client preferences, enhancing service options, and

expanding connections between customers and their enterprises, resulting in better performance.

#### **5.4.2 Recommendations for Further Studies**

This study looked at the impact of strategic service innovation on the performance of SMEs in Nyandarua County, Kenya. It looked at how service innovation variables such as user interface, SDS, and technology affect SME success. The study focused on small and medium-sized enterprises (SMEs) in Nyandarua County. As a result, a similar study should be conducted on other SMEs in the Nyandarua County area, as well as other parts of the country. Furthermore, further research may concentrate on other strategic service innovation variables such as innovation strategy, portfolio management, and human resource training.

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## APPENDICES

### Appendix I: Consent Form

#### Consent Form For Participation In Research

Dear Participant,

I'm writing my master's project and would want to ask you to take part in a research study at Mount Kenya University. The goal of the study is to ascertain:

**INFLUENCE OF SERVICE STRATEGIC INNOVATION ON ORGANIZATION SME's PERFORMANCE IN NYANDARUA COUNTY, KENYA.** is the subject of the enclosed questionnaire. Your participation in this study is completely voluntary. You can choose not to answer any questions at all, or you can choose to leave them blank. There are no known risks associated with participation other than those associated with everyday living. Your responses will remain anonymous and confidential. The data collected for this study will only be reported as a total and will be kept private. Your individual survey replies will only be known to the researchers. Participating in this study will not directly benefit you financially. However, discussing the issues the study addresses may be of interest to you and beneficial to the field, as well as to potential clients or those who have experienced similar circumstances.

If you agree to participate in this experiment, kindly answer the questionnaire as best you can. The completion time should be approximately forty minutes. Please return the questionnaire as soon as you can so I can complete the project report.

If you have any inquiries concerning this project, please get in touch with the

**MILKA WANJIRU MWANGI;MBA/2023/61086; , 0707359310**

Please contact the Chairman if you have any issues regarding your rights as a research participant. Mount Kenya University, Ethical Review Committee, P.O Box 342-01000, Thika.

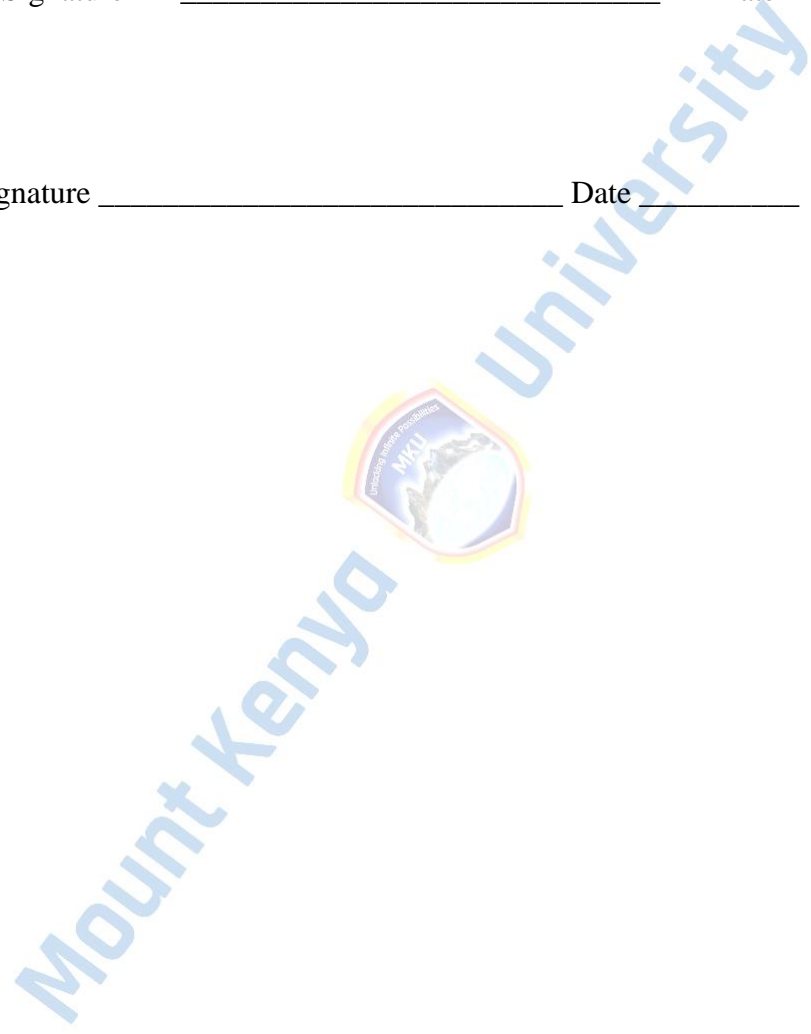
Thank you for your assistance in this important endeavor.

**CONSENT**

I've had an opportunity to ask questions, I've studied the material, and I understand it. I understand that participation is completely voluntary and that I can discontinue at any time, for any reason, and without incurring any costs. I understand that I will receive a copy of this permission form. My involvement in this research is entirely optional.

Participant's Signature \_\_\_\_\_ Date \_\_\_\_\_

Investigator's Signature \_\_\_\_\_ Date \_\_\_\_\_



## Appendix II: Questionnaire

This survey's objective is to evaluate the **Influence of Service Strategic Innovation on SME's Nyandarua County, Kenya**. Please fill it out as needed. You are under no obligation to reveal your name or any other personal information, including your contact details, and the data collected for this project will be treated with the utmost confidentiality.

### Section A: Background Information

1. Indicate your gender

Male

Female

2. Level of education

Primary  Secondary  College/ Diploma  Undergraduate

Master's Degree

3. Category of business

Micro Enterprise  Small Enterprise  Medium Enterprise  Large Enterprise

4. Period in the SME Industry

Below Years  6-10 Years  11-15 Years  16-20 Year  Above 21 Years

**Section B: Customer Interface of Small and Medium Enterprises**

Please score the following comments about customer interface and performance of SMEs, as they affect your firm, utilizing the following scale: SA stands for Strongly Agree, N for Neutral, A for Agree, D for Disagree, and SD for Agree.

No:		SD	D	N	A	SA
CI1	Our services are readily available to customers.					
CI2	Customers feel welcome in our business.					
CI3	We constantly redirect lost consumers to the proper place.					
CI4	Our staff provide services that they are trained on.					
CI5	Our personnel prioritize understanding our customers' needs before providing services.					
CI6	Our business look influences customer satisfactions					
CI7	Customer satisfaction is significantly impacted by employee civility.					
CI8	Our personnel offer personalized attention to customers.					
CI9	We collect consumer feedback after they depart the premises.					
CI10	Our business eliminates poor client perceptions through follow-up.					

### Section C: Service Delivery Systems of Small and Medium Enterprises

Please score the following statements about service delivery systems and SMEs' performance as they influence your firm, utilizing the following scale: SA stands for Strongly Agree, N for Neutral, A for Agree, D for Disagree, and SD for Agree.

No:		SD	D	N	A	SA
SD1	We prioritize providing high-quality services in our business.					
SD2	Our delivery systems assure timely delivery of products and services to customers.					
SD3	Our service delivery methods aim to ensure high-quality service for customers.					
SD4	Our service delivery system has improved the consumer experience.					
SD5	Employee performance significantly impacts the effectiveness of service delivery in the organization.					
SD6	We vary from the standard to meet consumer needs.					
SD7	We accomplish customer satisfaction by understanding individual needs.					
SD8	Our staff' coordination creates value for our consumers.					
SD9	Employee cooperation improves service delivery efficiency.					
SD10	We consistently improve our business control process and service delivery.					

**Section D: Technology of Small and Medium Enterprises**

Please score the following statements on technology and SMEs' performance as they influence your firm, utilizing the following scale: SA stands for Strongly Agree, N for Neutral, A for Agree, D for Disagree, and SD for Agree..

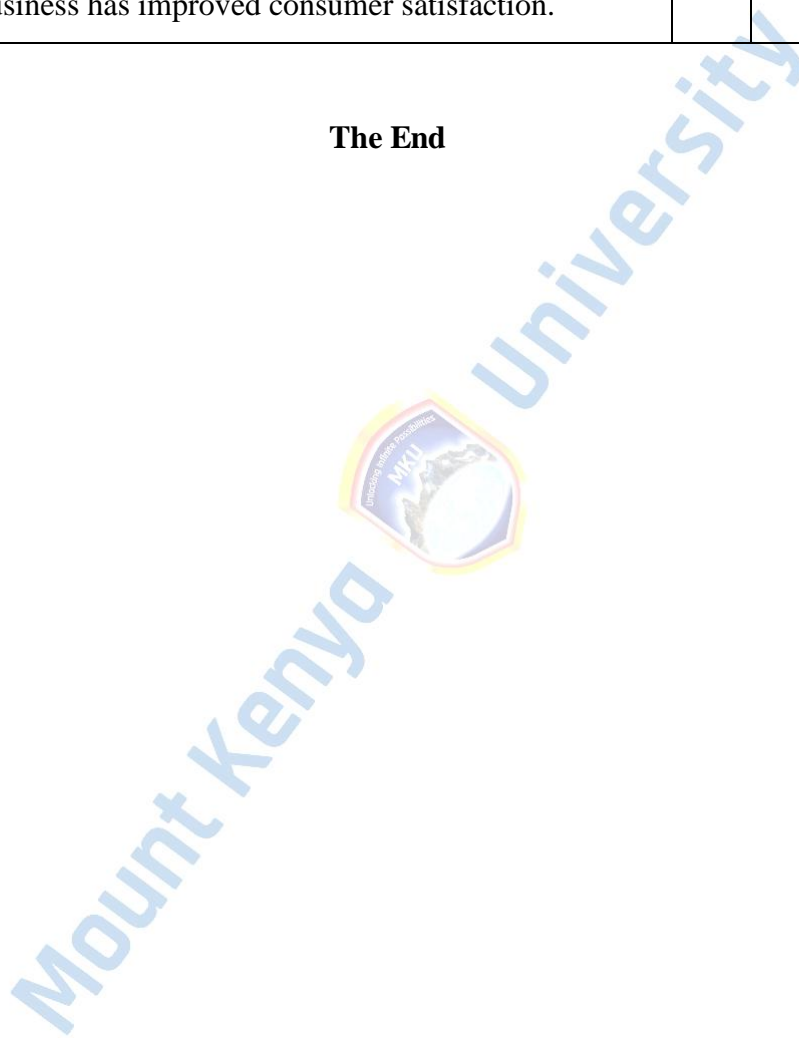
No:		SD	D	N	A	SA
TC1	We have adopted Self-Service Technologies to adapt to changing client behavior.					
TC2	Our customers enjoy face-to-face interactions with businesses.					
TC3	Our personnel excel at creating unforgettable customer experiences.					
TC4	Technology has given our business a significant competitive advantage over competitors.					
TC5	Customer satisfaction is primarily influenced by employee interactions in our organization.					
TC6	Our service staff' attitudes have a big impact on client perception.					
TC7	Customer happiness is strongly influenced by human service in company.					
TC8	Employee behavior is a key factor in distinguishing between exceptional and standard business services.					
TC9	Our business's commitment to customer satisfaction has increased client loyalty.					
TC10	We put the satisfaction of our clients first in order to establish enduring connections with them.					

**Section E: Small and Medium Enterprise’s Performance**

Please score the following statements on technology and SMEs' performance as they influence your firm, utilizing the following scale: SA stands for Strongly Agree, N for Neutral, A for Agree, D for Disagree, and SD for Agree.

No:		SD	D	N	A	SA
P1	Our business has expanded its sales growth.					
P2	Our firm has seen a rise in customer patronage.					
P3	We have received good feedback from customers.					
P4	Our business's market share has increased.					
P5	Our business has enhanced its profitability.					
P6	Our business has improved consumer satisfaction.					

**The End**



## Appendix III: MKU Research Authorization Letter



### DIRECTORATE OF GRADUATE STUDIES

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MBA/2023/61086

20<sup>th</sup> February, 2025

National Commission for Science Technology & Innovation (NACOSTI)  
Off Waiyaki Way, Upper Kabete,  
P.O Box 30623- 00100  
NAIROBI, KENYA

Dear Sir/Madam,

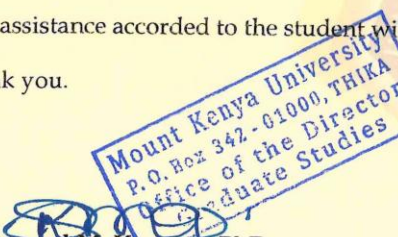
**RE: MILKA WANJIRU MWANGI - REGISTRATION NO. MBA/2023/61086**

The purpose of this letter is to introduce the above named student who is pursuing **Master of Business Administration** in the department of **Accounting and Finance** in the school of **Business and Economics**.

The title of the research is **"Influence of Service Strategic Innovation on Performance of Small and Medium Enterprises in Nyandarua County, Kenya."** It has been cleared by the University's Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data between **March, 2025 and May, 2025**.

Any assistance accorded to the student will be highly appreciated.

Thank you.


  
**Dr. Samuel M. Karenga, PhD**  
**Director, Graduate Studies**  
Enc.

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# Appendix IV: NACOSTI Research Permit

  
REPUBLIC OF KENYA

  
NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **111332** Date of Issue: **20/March/2025**

**RESEARCH LICENSE**




**This is to Certify that Miss. MILKA WANJIRU MUTERO MWANGI of Mount Kenya University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nyandarua on the topic: INFLUENCE OF SERVICE STRATEGIC INNOVATION ON PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN NYANDARUA COUNTY, KENYA for the period ending : 20/March/2026.**

License No: **NACOSTIP/25/416969**

**111332**  
Applicant Identification Number

  
Director General  
NATIONAL COMMISSION FOR  
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# INFLUENCE OF SERVICE STRATEGIC INNOVATION ON PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN NYANDARUA COUNTY, KENYA

*by milka wanjiru*

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