



# INNOVATION PRACTICES AND ORGANIZATIONAL PERFORMANCE OF SMEs IN NAIROBI CITY COUNTY, KENYA

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## ABSTRACT

Small and medium enterprises (SMEs) play a critical role in economic development in Kenya, particularly within Nairobi City County, where they contribute significantly to employment creation, income generation, and innovation. However, despite their importance, many SMEs continue to experience performance challenges due to limited resources, low levels of innovation adoption, and increasing competitive pressures. This study examines the effect of innovation practices on the organizational performance of SMEs in Nairobi City County, Kenya, with a focus on four key dimensions of innovation: product innovation, process innovation, marketing innovation, and organizational innovation. The study adopts a systematic literature review and synthesis approach, drawing on recent empirical studies and theoretical perspectives including Diffusion of Innovation Theory and Dynamic Capabilities Theory. The review further integrates organizational learning capability as a mediating variable and digital technology adoption as a moderating variable in the relationship between innovation practices and organizational performance. Findings from the reviewed literature indicate that innovation practices have a significant positive effect on organizational performance by enhancing efficiency, competitiveness, and market responsiveness. Product innovation improves customer value and market share, process innovation enhances operational efficiency and cost reduction, marketing innovation strengthens customer engagement and market expansion, while organizational innovation improves adaptability and strategic alignment. The study also establishes that organizational learning capability plays a critical mediating role by enabling firms to acquire, share, and apply knowledge, thereby translating innovation practices into improved performance outcomes. Additionally, digital technology adoption moderates this relationship by strengthening the effectiveness of innovation practices through improved connectivity, automation, and data-driven decision-making. The study concludes that innovation practices alone are insufficient to guarantee improved performance unless supported by strong organizational learning capability and adequate digital technology adoption. It recommends that SMEs invest in continuous innovation, strengthen learning processes, and embrace digital transformation to enhance performance and sustainability. The findings provide valuable insights for SME managers, policymakers, and researchers seeking to promote innovation-driven growth in emerging economies.

**KEYWORDS:** Innovation Practices; Organizational Performance; Organizational Learning Capability; Digital Technology Adoption; SMEs; Nairobi City County

## 1.0 INTRODUCTION

Innovation practices have been widely recognized as key drivers of organizational performance, particularly among small and medium enterprises (SMEs) operating in highly competitive and dynamic environments. Innovation practices encompassing product innovation, process innovation, marketing innovation, and organizational (management) innovation enable firms to improve efficiency, enhance customer value, and strengthen market competitiveness. Empirical studies have consistently shown that firms that actively engage in innovation tend to achieve superior performance outcomes in terms of profitability, productivity, and market growth (Saunila, 2020; Rokhman & Setiawan, 2023; Ajayi et al., 2024). In the SME context, innovation is especially critical because it allows resource-constrained firms to adapt to changing consumer demands, technological disruptions, and increasing competition. Studies conducted in Kenya and other developing economies confirm that innovation practices significantly influence organizational performance by improving operational efficiency and market responsiveness (Kithinji & Misuko, 2022; Woto et al., 2024; Zhu et al., 2022). However, the extent to which these innovation practices translate into sustained performance varies depending on internal capabilities and environmental conditions.

This study is anchored on two main theoretical foundations: Diffusion of Innovation Theory and Dynamic Capabilities Theory. Diffusion of Innovation Theory explains how new ideas, technologies, and practices spread within organizations and social systems, emphasizing factors such as relative advantage, compatibility, and ease of adoption (Rogers, 2003; Dearing & Cox, 2018). This theory is useful in explaining how SMEs adopt different forms of innovation practices over time. On the other hand, Dynamic Capabilities Theory explains how firms



integrate, build, and reconfigure internal and external resources to respond to rapidly changing environments (Teece, Pisano, & Shuen, 1997; Teece, 2007). It provides a strong foundation for understanding how SMEs convert innovation practices into improved performance through sensing opportunities, seizing them, and transforming organizational processes. In addition, the study integrates organizational learning capability as a mediating mechanism and digital technology adoption as a moderating factor, both of which strengthen the relationship between innovation and organizational performance by enhancing knowledge utilization and technological responsiveness.

The small and medium enterprise sector in Kenya, particularly within Nairobi City County, plays a central role in economic development by contributing significantly to employment creation, income generation, and innovation-driven growth. SMEs account for a large proportion of businesses in Kenya and are vital to the country's Gross Domestic Product (GDP) and socio-economic transformation (KNBS, 2024). Despite their importance, SMEs in Nairobi continue to face numerous challenges, including limited access to finance, high operational costs, intense competition, and inadequate technological and managerial capabilities (World Bank, 2025). These challenges have led to high failure rates among small enterprises, particularly in their early stages of operation. Consequently, innovation practices, supported by strong organizational learning and digital technology adoption, are increasingly viewed as essential strategies for improving competitiveness, sustainability, and overall organizational performance in the SME sector.

### 1.1.1 Background of the Study

Small and medium enterprises (SMEs) play a pivotal role in socio-economic development by fostering innovation, creating employment opportunities, generating income, and supporting industrial growth, particularly in developing economies. In Kenya, and notably within Nairobi City County, SMEs remain central to economic transformation and private sector expansion. These enterprises contribute significantly to national development by enhancing productivity and promoting entrepreneurship. Despite their growing importance, SMEs face increasing pressure from competition, technological disruptions, and changing consumer demands, which necessitate continuous innovation to sustain performance and competitiveness (Woto et al., 2024).

Organizational performance in the SME sector is often analyzed from two perspectives. The first emphasizes internal organizational factors, including innovation practices, entrepreneurial competencies, resource capabilities, and managerial skills, as key determinants of efficiency and growth (Thaimuta et al., 2024). The second perspective focuses on external factors, such as market competition, technological change, regulatory frameworks, and access to finance, which shape SME operations and performance outcomes (Matekenya & Moyo, 2022). Contemporary research highlights an integrated approach, recognizing that SME performance arises from the interaction between internal innovation capabilities and external environmental dynamics (Zhu et al., 2022).

Innovation practices have emerged as a critical internal mechanism influencing organizational performance. Product innovation enables SMEs to introduce new or improved goods and services that meet evolving customer needs, thereby enhancing market share and competitiveness (Kithinji & Misuko, 2022). Process innovation improves operational efficiency by optimizing production methods and reducing costs, which is particularly important for resource-constrained SMEs. Marketing innovation, including the use of digital platforms and new promotional strategies, enhances customer engagement and market penetration (Woto et al., 2024). Technological innovation further supports SMEs in improving decision-making and operational effectiveness. Empirical evidence indicates that entrepreneurial innovation competence significantly contributes to SME growth, explaining a considerable proportion of performance variation in Nairobi County (Thaimuta et al., 2024).

Innovation capability is also closely linked to other organizational competencies that enhance performance outcomes. Studies show that intellectual capital, particularly human capital, and entrepreneurial orientation, such as risk-taking and proactiveness, play a crucial role in strengthening innovation capability and improving firm performance (Rokhman & Setiawan, 2023). SMEs that actively invest in innovation and develop complementary capabilities are better positioned to identify market opportunities, respond to environmental changes, and achieve sustained growth. However, many SMEs in Nairobi continue to face challenges such as limited financial resources, inadequate technical skills, and weak innovation systems, which constrain their ability to effectively implement innovation practices (Thaimuta et al., 2024).

While innovation practices directly influence organizational performance, the effectiveness of these practices depends on how well firms integrate and apply them strategically. Evidence from Kenya indicates that although SMEs adopt various forms of innovation, many remain survival-oriented and fail to fully leverage innovation for long-term competitiveness (Woto et al., 2024). Similarly, studies from South Africa and China show that while innovation positively affects performance, its impact varies depending on firm capabilities, resource availability,



and external conditions (Matekenya & Moyo, 2022; Zhu et al., 2022). These findings suggest that innovation alone may not guarantee improved performance unless it is effectively aligned with organizational capabilities and strategic objectives.

Given this context, understanding how innovation practices influence organizational performance is critical for enhancing SME competitiveness and sustainability in Nairobi City County. While existing studies have established a positive relationship between innovation and performance, there remains a need for a more comprehensive analysis that captures multiple dimensions of innovation and their combined effect on firm outcomes. This study therefore seeks to provide empirical evidence on how innovation practices contribute to organizational performance among SMEs, with the aim of informing managerial strategies, policy formulation, and enterprise development initiatives in Kenya.

### 1.1.2 Innovation Practices

Innovation practices refer to the systematic implementation of new or improved products, processes, marketing methods, and organizational approaches that enable firms to enhance competitiveness and performance. In the SME context, innovation practices are critical for survival and growth, particularly in dynamic and resource-constrained environments where firms must continuously adapt to market changes and technological disruptions (OECD/Eurostat, 2022).

Innovation practices are commonly conceptualized as product innovation, process innovation, marketing innovation, and organizational innovation. Product innovation involves the introduction of new or improved goods and services that enhance customer value and market competitiveness. Process innovation refers to improvements in production and operational systems that enhance efficiency and reduce costs. Marketing innovation involves the adoption of new marketing strategies such as digital platforms, social media engagement, and customer targeting techniques, while organizational innovation refers to changes in managerial practices, structures, and business models that improve efficiency and adaptability (Chen, Viardot & Breme, 2019).

Key indicators of innovation practices include frequency of new product development, level of digital technology adoption, intensity of process improvement, and extent of marketing innovation activities. These indicators are widely used in empirical SME studies to measure innovation intensity and its relationship with firm performance. Empirical evidence shows that innovation capability has a significant positive effect on SME performance through improved efficiency, market responsiveness, and competitiveness (Saunila, 2020).

Timeliness in innovation adoption is also critical, as delayed implementation of new technologies or products reduces competitiveness and weakens market positioning. SMEs that continuously innovate are better able to respond to environmental changes, exploit emerging opportunities, and sustain growth. Recent empirical research shows that digital innovation and technological adoption significantly improve SME performance by enhancing operational efficiency and customer engagement (Chakim et al., 2024). In emerging economies such as Kenya, innovation practices therefore remain a key determinant of SME competitiveness, resilience, and organizational performance.

### 1.1.3 Organizational Performance

Organizational performance refers to the extent to which a firm achieves its strategic and operational objectives through effective utilization of resources, management practices, and capability development. In the context of small and medium enterprises (SMEs), organizational performance is a multidimensional construct that includes financial and non-financial outcomes such as profitability, productivity, customer satisfaction, innovation output, and overall efficiency. Recent studies emphasize that SME performance is increasingly shaped by intangible capabilities such as knowledge management, leadership quality, organizational culture, and digital transformation (Setiawan & Sopiah, 2026).

Organizational performance is commonly conceptualized as the outcome of interactions between internal capabilities and strategic practices. Digital transformation, for instance, has been identified as a key driver of SME performance by enabling firms to integrate technology into business processes, improve decision-making, and enhance operational efficiency (Li et al., 2022). Similarly, organizational culture and leadership are recognized as critical determinants of performance because they shape employee behavior, motivation, and strategic alignment within firms (Setiawan & Sopiah, 2026). These internal factors collectively influence how effectively SMEs respond to competitive pressures and environmental changes.

Key indicators of organizational performance include productivity levels, innovation output, employee motivation, customer satisfaction, and operational efficiency. Productivity reflects the efficiency with which firms



convert inputs into outputs, while innovation output captures the ability to generate new products, services, or processes. Employee motivation is a key internal indicator because it directly influences productivity, creativity, and commitment to organizational goals. Empirical evidence shows that organizational culture, leadership, and knowledge management practices significantly enhance these performance outcomes by improving coordination, learning, and task efficiency (Wahyudi & Sunarsi, 2025).

Timeliness and efficiency in executing organizational processes are also critical determinants of performance. Firms that effectively manage tacit knowledge and foster affective trust among employees tend to achieve higher levels of task efficiency and innovation performance. Studies further show that tacit knowledge management processes directly enhance product innovation and organizational performance by improving coordination and reducing inefficiencies in workflow execution (Zhang et al., 2025). In SMEs, where resources are often limited, such knowledge-driven capabilities are essential for sustaining competitiveness and achieving long-term performance gains.

#### 1.1.4 Organizational Learning Capability

Organizational learning capability refers to the ability of a firm to acquire, assimilate, transform, and exploit knowledge in order to improve processes, innovation outcomes, and overall performance. In SMEs, it determines how innovation practices are converted into tangible performance improvements through knowledge creation and application (Zhang et al., 2025). Firms with strong learning capability are better able to integrate digital technologies, improve decision-making, and adapt to market changes, thereby enhancing operational efficiency and competitiveness (Li et al., 2022). Knowledge sharing and tacit knowledge management processes significantly improve product innovation and organizational performance by strengthening trust, coordination, and task efficiency (Zhang et al., 2025). Similarly, entrepreneurial learning and capability development enable SMEs to translate innovation inputs into improved market outcomes and productivity gains (Li et al., 2022). Organizational learning capability therefore mediates the relationship between innovation practices and organizational performance by ensuring that innovation activities are effectively absorbed, interpreted, and applied within the firm. It is operationalized using indicators such as knowledge acquisition, knowledge sharing, and learning speed.

#### 1.1.5 Digital Technology Adoption

Digital technology adoption refers to the extent to which firms integrate digital tools, platforms, and systems into their business operations to enhance efficiency, communication, and market responsiveness. In SMEs, digital adoption shapes the strength of the relationship between innovation practices and organizational performance by enabling firms to effectively implement and scale innovative activities (Li et al., 2022). Digital transformation enhances firm capabilities by improving data-driven decision-making, operational efficiency, and customer engagement (Li et al., 2022). SMEs with higher levels of digital integration are more likely to translate innovation practices into superior performance outcomes due to improved connectivity, automation, and market access. Conversely, firms with low digital adoption experience weaker returns from innovation investments due to limited infrastructure and capability constraints. Therefore, digital technology adoption moderates the relationship between innovation practices and organizational performance, strengthening or weakening the effect depending on the level of technological integration within the firm. It is operationalized using indicators such as level of digital tool usage, adoption of online platforms, and integration of mobile-based business systems.

#### 1.1.6 Small and Medium Enterprises (SMEs) in Kenya

SMEs in Kenya operate under the Micro and Small Enterprises Act, 2012 and are regulated through national and county government frameworks that support enterprise development and employment creation. According to the Kenya National Bureau of Statistics (KNBS, 2024), there are approximately 7.4 million MSMEs in Kenya, accounting for about 98% of all businesses and contributing over 30% of Gross Domestic Product (GDP) while employing more than 80% of the workforce. The sector has expanded due to economic recovery, digital adoption, and increased entrepreneurial activity, particularly among youth and women. SMEs in Kenya operate across wholesale and retail trade, agriculture, manufacturing, transport, construction, and digital services. In Nairobi City County, SMEs are highly concentrated due to access to markets, infrastructure, and financial institutions. Nairobi remains the largest contributor to Kenya's economy, with a Gross County Product of approximately USD 31 billion (KNBS, 2025). However, SMEs continue to face challenges such as limited access to finance, high operating costs, and intense competition. The World Bank (2025) reports that constrained credit growth and high interest rates continue to affect SME expansion. Consequently, innovation and digital transformation remain critical for survival and competitiveness in Kenya's dynamic SME sector.

### 1.2 Statement of the Problem

Small and medium enterprises (SMEs) are widely recognized as critical drivers of economic growth, employment creation, and innovation across both developed and developing economies. In Kenya, SMEs contribute



significantly to GDP and play a central role in private sector development, particularly within urban centers such as Nairobi City County. Despite their importance, SMEs continue to face persistent challenges that limit their growth, sustainability, and overall performance. These challenges include limited financial resources, inadequate managerial capabilities, intense market competition, and low levels of innovation adoption, all of which constrain their ability to remain competitive in dynamic business environments (Woto et al., 2024; Thaimuta et al., 2024).

Innovation has increasingly been identified as a critical factor in enhancing firm performance and competitiveness. Empirical evidence from Kenya indicates that entrepreneurial innovation competence significantly influences the growth of micro and small enterprises, explaining a substantial proportion of performance variation (Thaimuta et al., 2024). Similarly, studies on SMEs in Nairobi County show a strong and statistically significant relationship between innovativeness and firm performance, with innovative practices such as digital marketing and technology adoption improving competitiveness and profitability (Woto et al., 2024). However, despite this evidence, a large proportion of SMEs in Kenya continue to exhibit low levels of innovation, with failure rates remaining alarmingly high, over 60% of small enterprises reportedly fail within their early stages of operation (Woto et al., 2024). This suggests that while innovation is acknowledged as important, its adoption and effective utilization remain limited. Beyond Kenya, evidence from other contexts reinforces the importance of innovation in driving organizational performance. For instance, a study on small, medium, and micro enterprises (SMMEs) in South Africa found that innovation, particularly in the form of research and development (R&D) investment and introduction of new products, has a significant positive effect on firm performance, especially among high-growth firms (Matekenya & Moyo, 2022). Similarly, global evidence from China indicates that innovation significantly enhances organizational performance, although the relationship is often influenced by contextual factors such as investor sentiment and external market conditions (Zhu et al., 2022). These studies highlight that while innovation is a key driver of performance, its impact may vary depending on firm capabilities and environmental dynamics.

Despite the growing body of empirical evidence linking innovation to organizational performance, several gaps remain. First, many studies focus on isolated aspects of innovation, such as innovativeness or R&D, without examining the broader spectrum of innovation practices, including product, process, marketing, and technological innovations. Second, existing studies often establish direct relationships between innovation and performance but fail to explain the underlying mechanisms through which innovation translates into improved outcomes. In particular, there is limited attention to the role of firm-level capabilities required to effectively adopt, implement, and sustain innovation in dynamic environments.

Furthermore, SMEs in Nairobi operate in highly volatile and uncertain environments characterized by rapid technological changes, shifting consumer preferences, and increasing competitive pressures. While innovation adoption is necessary, it is not sufficient on its own to guarantee improved performance. Firms must possess the ability to sense opportunities, seize them, and reconfigure their resources accordingly. However, there is limited empirical evidence on how such capabilities interact with innovation practices to influence organizational performance in the Kenyan SME context.

Therefore, the research problem centers on the need to understand how innovation practices influence organizational performance among SMEs in Nairobi City County, Kenya, and the extent to which firm capabilities shape this relationship. Specifically, there is a lack of comprehensive empirical studies that integrate both the adoption of innovation and the organizational capabilities required to leverage these innovations for improved performance outcomes. This study seeks to address this gap by examining the relationship between innovation practices and organizational performance, while incorporating relevant theoretical perspectives to explain both the adoption and utilization of innovation. The findings are expected to provide valuable insights for policymakers, SME owners, and practitioners on how to effectively leverage innovation as a strategic tool for enhancing performance and sustainability in emerging market contexts.

### 1.3 Research Objectives and Hypotheses

#### 1.3.1 General Objective

To investigate the effect of innovation practices on the organizational performance of SMEs in Nairobi City County, Kenya.

#### 1.3.2 Specific Objectives

The study was guided by the following specific objectives:

- i. To determine the effect of product innovation practices on organizational performance of SMEs in Nairobi City County, Kenya.
- ii. To establish the effect of process innovation practices on organizational performance of SMEs in Nairobi City County, Kenya.



- iii. To assess the effect of marketing innovation practices on organizational performance of SMEs in Nairobi City County, Kenya.
- iv. To determine the effect of organizational (management) innovation practices on organizational performance of SMEs in Nairobi City County, Kenya.
- v. To examine the mediating role of organizational learning capability in the relationship between innovation practices and organizational performance of SMEs in Nairobi City County, Kenya.
- vi. To evaluate the moderating role of digital technology adoption in the relationship between innovation practices and organizational performance of SMEs in Nairobi City County, Kenya.

#### 1.4 Research Hypotheses

H<sub>01</sub>: Product innovation practices have no significant effect on organizational performance of SMEs in Nairobi City County, Kenya.

H<sub>02</sub>: Process innovation practices have no significant effect on organizational performance of SMEs in Nairobi City County, Kenya.

H<sub>03</sub>: Marketing innovation practices have no significant effect on organizational performance of SMEs in Nairobi City County, Kenya.

H<sub>04</sub>: Organizational (management) innovation practices have no significant effect on organizational performance of SMEs in Nairobi City County, Kenya.

H<sub>05</sub>: Organizational learning capability does not significantly mediate the relationship between innovation practices and organizational performance of SMEs in Nairobi City County, Kenya.

H<sub>06</sub>: Digital technology adoption does not significantly moderate the relationship between innovation practices and organizational performance of SMEs in Nairobi City County, Kenya.

## 2.0 LITERATURE REVIEW

### 2.1 Introduction

This chapter presents a review of literature relevant to the study on innovation practices and organizational performance of SMEs in Nairobi City County. It examines theoretical perspectives guiding innovation, particularly Diffusion of Innovation Theory and Dynamic Capabilities Theory, as well as empirical studies conducted between 2020 and 2026 on SME innovation and performance. The chapter critically evaluates prior research to identify existing knowledge gaps and inconsistencies in the relationship between innovation practices and organizational performance. It also discusses the mediating role of organizational learning capability and the moderating role of digital technology adoption in this relationship. Finally, the chapter presents a conceptual framework illustrating the relationships among the key variables of the study.

### 2.2 Theoretical Framework

This study is anchored on Diffusion of Innovation Theory and Dynamic Capabilities Theory, which explain how innovation is adopted and how firms integrate and reconfigure capabilities to enhance organizational performance. Together, the theories provide a framework for understanding how innovation practices translate into performance outcomes through organizational learning and digital technology adoption.

#### 2.2.1 Diffusion of Innovation Theory

This study is anchored on the Diffusion of Innovation Theory to explain how innovation practices are adopted among small and medium enterprises (SMEs) in Nairobi City County, Kenya. The theory, originally developed by Everett Rogers, posits that innovation diffusion is a process through which new ideas, technologies, or practices spread within a social system over time (Rogers, 2003). According to the theory, the rate and extent of adoption are influenced by key attributes of innovation, including relative advantage, compatibility, complexity, trialability, and observability.

The Diffusion of Innovation Theory further categorizes adopters into five groups namely innovators, early adopters, early majority, late majority, and laggards, each with varying levels of willingness to embrace new ideas. In the context of SMEs, these categories help explain why some firms rapidly adopt innovations such as digital platforms, mobile payment systems, and process automation, while others lag behind. Empirical studies have shown that early adoption of innovation is associated with improved competitiveness, efficiency, and market responsiveness, which ultimately enhances organizational performance (Dearing & Cox, 2018).

Additionally, the theory emphasizes the role of communication channels and social networks in shaping adoption decisions. For SMEs in Nairobi, business associations, industry networks, and digital ecosystems play a critical role in influencing innovation uptake. The theory is therefore relevant to this study as it provides a framework for understanding how innovation practices such as product, process, marketing, and technological innovations are



adopted and diffused among SMEs. By explaining the behavioral and structural factors influencing adoption, the theory helps link innovation practices to variations in organizational performance.

### 2.2.2 Dynamic Capabilities Theory

This study also adopts the Dynamic Capabilities Theory to explain how SMEs translate innovation practices into improved organizational performance. The theory was advanced by David J. Teece, Gary Pisano, and Amy Shuen, and it emphasizes a firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments (Teece, Pisano, & Shuen, 1997).

Dynamic capabilities extend the resource-based view (RBV) by addressing its limitations in dynamic and uncertain environments. While RBV focuses on valuable, rare, inimitable, and non-substitutable resources, Dynamic Capabilities Theory explains how firms continuously renew and reconfigure these resources to sustain competitive advantage (Eisenhardt & Martin, 2000). In rapidly evolving markets such as Nairobi's SME sector, firms must not only possess resources but also develop capabilities to adapt to technological disruptions, changing customer preferences, and competitive pressures.

The theory identifies three core dimensions of dynamic capabilities: sensing opportunities and threats, seizing opportunities through strategic investments and innovation, and transforming or reconfiguring organizational resources to maintain competitiveness (Teece, 2007). These dimensions are particularly relevant to innovation practices, as SMEs must first identify opportunities for innovation, implement innovative solutions, and continuously refine their processes to achieve superior performance outcomes.

Furthermore, innovation capability is considered a critical dynamic capability that enables firms to convert knowledge and ideas into new products, services, and processes (Wang & Ahmed, 2007). Empirical evidence suggests that firms with strong dynamic capabilities are more likely to achieve higher levels of performance, particularly in turbulent environments (Teece, 2018). Therefore, the Dynamic Capabilities Theory provides a robust framework for explaining how innovation practices influence organizational performance by enabling SMEs to adapt, compete, and sustain growth.

In this study, the theory is relevant in linking innovation practices such as product, process, marketing, and technological innovations, to organizational performance outcomes. It explains how SMEs in Nairobi City County can leverage their dynamic capabilities to effectively implement innovations and achieve improved efficiency, profitability, and competitiveness.

## 2.3 Empirical Review

This section reviews past studies on innovation practices, specifically product innovation, process innovation, marketing innovation, and organizational (management) innovation, and their effect on organizational performance of SMEs in Nairobi City County, Kenya. It further examines organizational learning capability as a mediating variable in the relationship between innovation practices and organizational performance, and evaluates the moderating role of digital technology adoption in influencing this relationship.

### 2.3.1 Product Innovation Practices and Organizational Performance

Rokhman & Setiawan (2023) examined innovation capabilities and performance among batik SMEs in East Java, Indonesia, and established that product innovation significantly contributes to improved organizational performance. The study found that SMEs that invest in creating unique product designs, differentiated features, and appealing combinations are better able to compete in the market and enhance their overall performance. Product innovation was identified as a key driver of competitiveness, enabling firms to explore new market opportunities and respond effectively to changing customer preferences.

In the Kenyan context, Kithinji and Misuko (2022) similarly found that product innovation has a positive and statistically significant effect on the performance of SMEs in Nairobi City County. Their study revealed that enterprises that continuously introduce new products and improve existing ones are more likely to achieve higher efficiency and sustain competitive advantage. The authors emphasize that in dynamic and resource-constrained environments, product innovation is essential for survival and growth.

Further support is provided by Benjo and Mwasiaji (2023), who examined innovation practices among women-owned SMEs in Bomet County, Kenya. Their findings indicate that product innovation positively influences both financial and non-financial performance. However, the study also highlights that the success of product innovation depends on how well it is aligned with market needs and organizational capabilities. These studies demonstrate



that product innovation is a critical determinant of organizational performance among SMEs, as it enhances competitiveness, market responsiveness, and long-term sustainability.

### 2.3.2 Process Innovation Practices and Organizational Performance

Zhu, Isaac, and Edmund (2022) examined the relationship between innovation and organizational performance among Chinese enterprises and found that innovation significantly enhances firm performance. Their study indicates that enterprises adopt innovations, including process improvements, as adaptive responses to external market signals such as investor sentiment. These process-oriented changes enable firms to improve operational efficiency, respond to dynamic environments, and ultimately achieve superior performance outcomes.

In the Kenyan context, Kiiru, Mukulu, and Ngatia (2022) found that technology orientation, closely linked to process innovation, has a positive and significant effect on the performance of small and medium animal feed manufacturing enterprises. The study established that firms that embrace new technologies, upgrade production processes, and build technical competencies achieve better performance outcomes.

Further, Obondo (2017) found that process innovation significantly influences the performance of SMEs in the construction industry in Nairobi City County, Kenya. The study highlighted that improvements in operational processes enhance efficiency and competitiveness. Supporting this, Yego, Sang, and Kibet (2020) established a strong positive relationship between process innovation and performance among manufacturing SMEs in Nairobi County, noting that enhanced processes lead to reduced costs, increased efficiency, and improved market share. These studies confirm that process innovation is a critical determinant of organizational performance among SMEs.

### 2.3.3 Marketing Innovation Practices and Organizational Performance

Ajayi et al. (2024) examined the influence of marketing innovation on the performance of SMEs in Oyo Township, Nigeria, and found a positive and significant relationship between marketing innovation and firm performance. The study established that elements such as digital marketing technologies, new distribution channels, collaboration strategies, and innovative promotional approaches jointly enhance SME performance. It further highlighted that firms adopting diverse marketing innovations are better able to attract customers, expand market reach, and improve overall competitiveness.

In the Kenyan context, Okundi and Muchemi (2022) found a strong positive and significant relationship between marketing innovation strategies and entrepreneurial performance among SMEs in Nakuru East Town Sub-County. The study revealed that practices such as improving product design, exploring new markets, adopting new advertising methods, and introducing alternative distribution channels contribute to increased market share, customer satisfaction, and profitability.

Similarly, Kimathi, Mukulu, and Odhiambo (2020) established that innovation, including marketing innovation, has a positive and significant effect on the performance of SMEs in Kenya. The study emphasized that SMEs that adopt modern marketing approaches such as e-commerce and digital platforms are more likely to reduce transaction costs, improve efficiency, and achieve sustainable performance. These studies demonstrate that marketing innovation is a critical driver of organizational performance, as it enhances customer engagement, market expansion, and competitiveness among SMEs.

### 2.3.4 Organizational (Management) Innovation Practices and Organizational Performance

Saah et al. (2023) examined the contribution of innovations to the growth and competitiveness of SMEs in South Africa and found that organizational innovation, alongside other forms of innovation, has a significant positive effect on firm performance. The study established that SMEs that adopt innovative management practices such as improved organizational structures, strategic decision-making processes, and adaptive management systems, are more likely to survive, grow, and remain competitive. Organizational innovation was thus identified as a critical driver of long-term sustainability and competitiveness.

In the Kenyan context, Woto, Muema, and Mutiria (2024) found a strong statistical relationship between innovativeness and the performance of SMEs in Nairobi County. The study highlighted that firms that embrace innovative management approaches, including strategic planning and internal restructuring, are better able to enhance their performance and respond to competitive pressures.

Similarly, Thaimuta, Ngugi, and Nyang'au (2024) established that entrepreneurial innovation competence significantly influences the growth of micro and small enterprises in Nairobi County. Their findings suggest that



management-related innovation capabilities such as leadership skills, strategic orientation, and organizational learning play a key role in improving firm growth and performance.

Further support is provided by Kariuki and Mungai (2024), who found that aspects of entrepreneurial orientation such as risk-taking and competitive aggressiveness significantly influence the performance of SMEs in Nairobi City County. These elements reflect management innovation practices that enable firms to adapt to changing environments and enhance competitiveness. These studies indicate that organizational (management) innovation is a vital determinant of organizational performance, as it strengthens internal capabilities, enhances adaptability, and promotes sustainable growth among SMEs.

### **2.3.5 Mediating Role of Organizational Learning Capability in the Relationship between Innovation Practices, and Organizational Performance**

Migdadi (2021) examined the relationship between organizational learning capability (OLC), innovation, and organizational performance and found that OLC significantly influences both innovation and performance. The study established that OLC enhances organizational performance indirectly through innovation, confirming its mediating role in the relationship. This implies that firms with strong learning capabilities are better able to translate innovation practices into improved performance outcomes.

Similarly, Haile and Tüzüner (2022) found that organizational learning capability positively influences organizational innovation among manufacturing firms in Ethiopia. The study demonstrated that firms with higher levels of learning capability are more likely to adopt and implement innovation practices, although the strength of this relationship may vary depending on contextual factors. This reinforces the argument that OLC acts as a critical link between innovation and performance.

Further evidence is provided by Zhang, Xu, and Xiao (2022), who found that organizational learning plays a significant mediating role in the relationship between business model innovation and performance. The study revealed that firms that invest in learning processes such as training and knowledge development are better positioned to enhance innovation outcomes and overall performance. Similarly, Allammari et al. (2025) confirmed that learning orientation positively influences SME performance, with innovation capabilities partially mediating this relationship, highlighting the interconnected nature of learning, innovation, and performance.

Allammari et al. (2025) examined the relationship between organizational learning, innovation capabilities, and performance among SMEs in Morocco and found that learning orientation has a positive and direct effect on organizational performance. The study further established that both product innovation capability and managerial innovation capability play a partial mediating role in this relationship. Specifically, these innovation capabilities strengthen the effect of organizational learning on performance by enabling firms to effectively translate acquired knowledge into improved products and enhanced management practices. The findings suggest that SMEs that foster a strong learning culture and simultaneously invest in innovation capabilities are more likely to achieve superior performance outcomes. This underscores the importance of integrating organizational learning with innovation practices as a strategic approach to enhancing competitiveness and performance.

Recent evidence from Mohamed and Hussein (2025) in Somali banks further supports the mediating role of organizational learning. The study found that innovation practices significantly enhance organizational learning, which in turn improves organizational performance, indicating that OLC acts as a catalyst in strengthening the innovation-performance link. These studies demonstrate that organizational learning capability plays a crucial mediating role in the relationship between innovation practices and organizational performance.

### **2.3.6 Moderating Role of Digital Technology in the Relationship between Innovation Practices, and Organizational Performance**

Mollah et al. (2024) examined the effect of technological culture and knowledge sharing on organizational performance and found that digital innovation significantly enhances performance outcomes. The study further established that knowledge sharing and technological culture positively influence digital innovation, which in turn improves organizational performance. Importantly, the findings highlight that the adoption of digital technologies strengthens the effectiveness of knowledge-based processes in driving performance, indicating the critical role of digital capability in modern organizations.

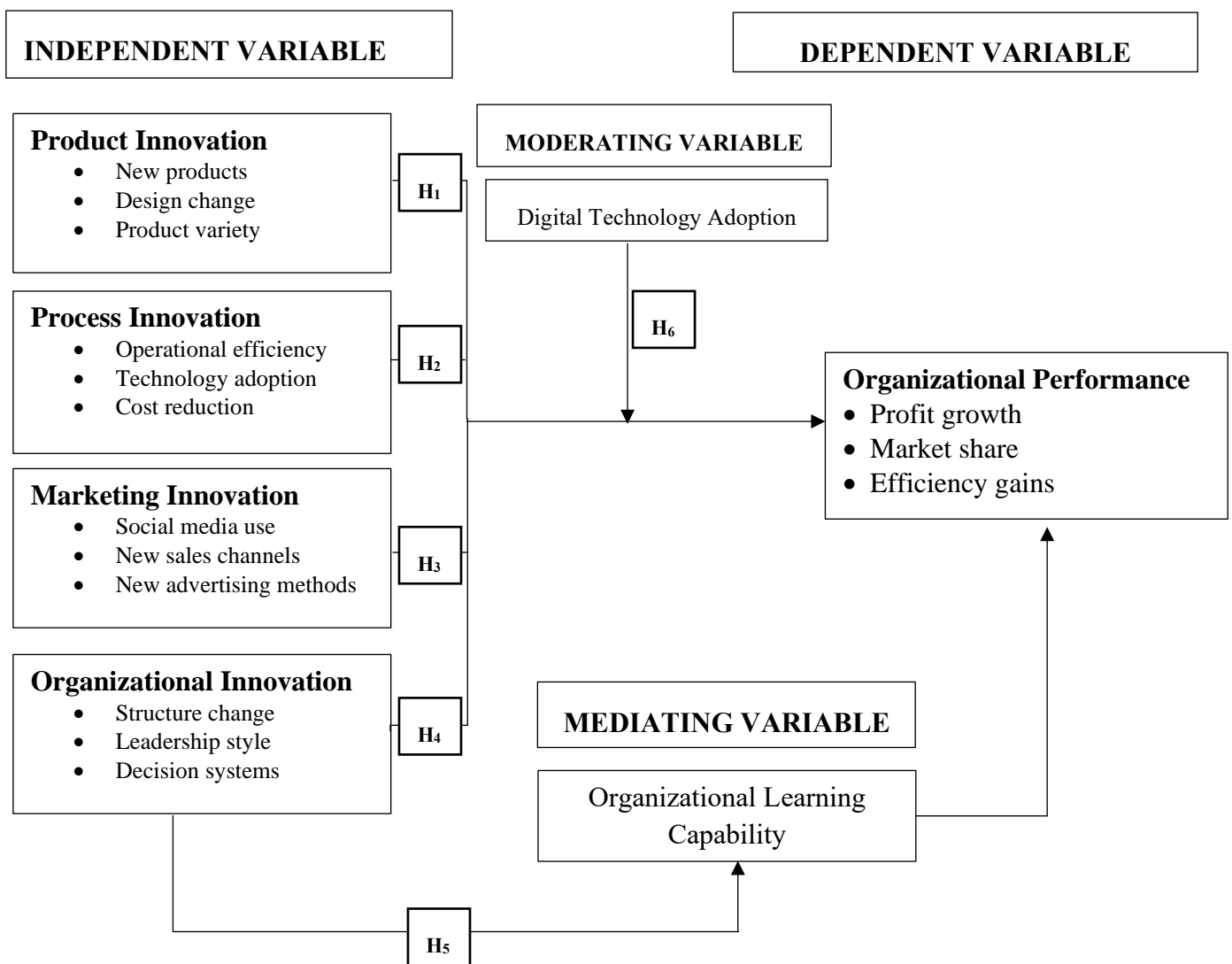
Similarly, Shah et al. (2024) found that digital technologies and digital innovation have significant positive effects on firm performance in ICT firms. The study further revealed that digital transformation capabilities enhance innovation outcomes, which subsequently improve performance. This demonstrates that firms with higher levels of digital capability are better able to convert innovation practices into improved organizational results. In the

SME context, Kadenge et al. (2025) established that technological innovations significantly influence the performance of women-led SMEs in Kenya. The study confirmed a strong positive relationship between technological innovation and firm performance, emphasizing that the adoption of digital tools and technologies enhances efficiency and competitiveness.

Further, Azhar and Javed (2024) found that digital innovation plays a moderating role in the relationship between digital learning and sustainable performance among SMEs. The study revealed that firms that adopt stronger digital innovation practices are better able to translate learning and capability development into improved performance outcomes. Amankona et al. (2025) further support this view by showing that digital literacy and digital organizational culture strengthen the relationship between responsible digital innovation and innovation performance. The study demonstrates that digital readiness enhances the impact of innovation strategies on performance outcomes. Collectively, these studies indicate that digital technology adoption plays a crucial moderating role by strengthening the relationship between innovation practices, organizational learning capability, and organizational performance.

### 2.4 Conceptual Framework

Salawu et al (2023) posits that a clearly structured conceptual framework aids in illustrating the potential relationships among the study variables. The conceptual framework for this research is presented graphically in Figure 2.1 below.



**Figure 2.1: Conceptual Framework**  
Source: Author (2026)



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