THE MODERATING INFLUENCE OF DYNAMIC CAPABILITIES ON THE RELATIONSHIP BETWEEN BUSINESS MODEL INNOVATION AND PERFORMANCE OF INSURANCE COMPANIES IN KENYA

PHILEMON ONYANGO ADEDE

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DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

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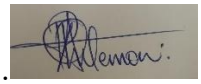
Signature……  ……Date …04/06/2025…….....

Approval

The thesis of Philemon Onyango Adede was reviewed and approved for examination by the following:

Name of Supervisor: Dr. Diana Ominde

Faculty Affiliation: Lecturer

Signature: 

Date: 03/6/2025

Institution: Strathmore Business School

ABSTRACT

Despite the increasing adoption of innovation and digital technologies in the insurance industry, many insurance companies continue to experience challenges in improving organizational performance, particularly in terms of customer satisfaction, operational efficiency, and market competitiveness. In Kenya, the insurance sector has faced persistent issues including low insurance penetration, limited product accessibility, and increasing competitive pressures. These challenges have necessitated greater emphasis on innovative business models, digital transformation, and organizational capabilities that can enhance performance outcomes and long-term sustainability. This study examined the moderating influence of dynamic capabilities on the relationship between business model innovation and performance of insurance companies in Kenya. The specific objectives were to assess the effect of business model innovation on organizational performance, examine the effect of digital transformation on organizational performance, and determine the moderating effect of dynamic capabilities on the relationship between business model innovation and organizational performance. The study was anchored on Dynamic Capabilities Theory, Resource-Based View Theory, and Diffusion of Innovation Theory, which collectively explain how firms build competitive advantage through strategic resources, innovation adoption, and organizational capabilities. An explanatory research design with a quantitative approach was employed. The study targeted all 63 insurance companies licensed by the Insurance Regulatory Authority in Kenya as of December 2023. A census approach was used, collecting data from 189 senior executives through structured questionnaires using a five-point Likert scale. A response rate of 78.8% was achieved, with 149 completed questionnaires returned. Data were analysed using descriptive statistics and hierarchical multiple regression analysis to test the study hypotheses. The findings revealed that business model innovation had a positive and significant effect on organizational performance ($\beta = 0.301$, $p = 0.000$), while digital transformation also showed a positive and significant effect ($\beta = 0.187$, $p = 0.022$). The results further indicated that dynamic capabilities had a strong positive relationship with organizational performance ($r = 0.586$, $p < 0.01$). Moderation analysis showed that dynamic capabilities significantly strengthened the relationship between business model innovation and organizational performance ($\beta = 0.168$, $p < 0.05$), with the full regression model explaining 40.3% of the variance in performance. The study concluded that business model innovation and dynamic capabilities are critical drivers of organizational performance in Kenya's insurance sector. Dynamic capabilities enhance the effectiveness of innovation initiatives by enabling firms to sense opportunities, seize innovations, and transform internal processes. The study recommends that insurance companies strengthen innovative product development, enhance customer-facing digital platforms, and develop systematic market sensing and competitive intelligence capabilities. Insurance companies should also prioritize capability development alongside innovation investments to maximize the performance benefits of business model innovation.

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DEFINITION OF TERMS

Business Model Innovation (BMI): The deliberate modification of an organization's business model elements, their interrelationships, or architecture to enhance value creation, delivery, and capture mechanisms (Foss & Saebi, 2017).

Business Model: The architectural design of the systems involved in a firm's value creation, delivery, and capture processes (Teece, 2010).

Digital Transformation: The comprehensive integration of digital technologies into business operations to create new value networks, enhance customer experiences, and optimize organizational processes (Vial, 2019).

Dynamic Capabilities: An organization's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments (Teece et al., 1997).

Insurance Companies: Financial institutions licensed by the Insurance Regulatory Authority (IRA) of Kenya to provide risk transfer services through insurance contracts.

Organizational Performance: A multidimensional construct encompassing both financial metrics and non-financial indicators including customer satisfaction, operational efficiency, market competitiveness, and service quality (Kaplan & Norton, 2005).

LIST OF ABBREVIATIONS

AI - Artificial Intelligence

BM - Business Model

BMI – Business Model Innovation

DC - Dynamic Capabilities

ICT – Information and Communication Technology

IoT - Internet of Things

IRA – Insurance Regulatory Authority

NFP - Non-Financial Performance

RBV – Resource Based View

ROA - Return on Assets

ROI - Return on Investment

VRIN - Valuable, Rare, Inimitable, and Non-Substitutable

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Organizational performance refers to the extent to which a firm achieves its strategic objectives through effective resource use, customer value delivery, operational efficiency, and competitive positioning (Kaplan & Norton, 2005). In the insurance sector, performance is commonly assessed through both financial and non-financial indicators, although non-financial indicators such as customer satisfaction, service quality, operational effectiveness, and market competitiveness are increasingly important because they determine long-term customer retention and market trust (Businge et al., 2021). Insurance performance is therefore not limited to premium growth or profitability, since weak claims handling, poor service experience, limited product relevance, and low customer confidence can undermine firm sustainability even where gross premiums appear to increase (Kamali et al., 2022). This study focuses on performance of insurance companies through customer satisfaction, operational effectiveness, market competitiveness, and service quality because these indicators reflect how well insurers respond to customer needs and market demands (Karadağ Erdemir, 2019).

Business model innovation refers to the redesign of how a firm creates, delivers, and captures value in response to changing customer needs, technology shifts, and competitive pressures (Foss & Saebi, 2017). In this study, business model innovation is the main independent variable and is conceptualized through revenue model innovation, distribution channel innovation, value proposition innovation, and digital transformation (Clauss, 2017). Digital transformation is treated as a dimension of business model innovation rather than a separate independent variable because digital technologies support new revenue models, digital distribution channels, automated service processes, data-driven decision-making, and improved customer experience (Vial, 2019). Dynamic capabilities are positioned as the moderating variable because they explain how firms sense opportunities, seize them through resource mobilization, and transform internal systems to support innovation implementation (Teece, 2007). Therefore, the study assumes that business model innovation influences insurance firm performance, while dynamic capabilities determine the strength of this relationship (Teece, 2018).

Globally, studies from developed economies show that business model innovation has become a major response to performance pressure in insurance and wider service industries (Clauss et al., 2019). In Germany, business model innovation has been linked to improved value creation

and stronger firm competitiveness, although the evidence is stronger in manufacturing and broad service sectors than in insurance-specific settings (Geissdoerfer et al., 2018). In the United Kingdom, revenue model experimentation has been associated with improved revenue growth, although such findings may not fully explain service quality and customer satisfaction outcomes in regulated insurance markets (Saebi & Foss, 2015). In the United States, usage-based insurance has improved pricing accuracy and claims management in motor insurance, although its success depends on digital infrastructure, customer data availability, and market readiness (Levitt & March, 2020). In Italy and other European markets, digital transformation and platform-based insurance models have improved customer access and service delivery, although these results may not transfer directly to emerging economies with weaker infrastructure and lower insurance awareness (Magistretti et al., 2021).

Global evidence also shows that innovation alone may not improve performance unless firms have the internal capabilities required to implement and sustain change (Teece, 2018). Studies on dynamic capabilities indicate that firms with stronger sensing capabilities identify changing customer needs and technology opportunities earlier than less adaptive firms (Schoemaker et al., 2018). Firms with stronger seizing capabilities are better able to allocate resources, invest in new business models, and implement innovation initiatives effectively (Weimann et al., 2020). Firms with stronger transforming capabilities are more likely to adjust internal structures, employee skills, systems, and processes to support business model change (Teece, 2007). This means that the effect of business model innovation on performance may differ across firms depending on the strength of their dynamic capabilities (Pang et al., 2025).

In Africa, insurance companies operate in markets where low penetration, limited trust, affordability concerns, and weak product awareness continue to affect performance (African Insurance Organisation, 2023). Studies from South Africa show that digital insurance platforms and customer-centred product innovation can improve access and service convenience, although adoption is uneven across firms due to differences in technology investment and organizational readiness (Msomi, 2023). In Nigeria, microinsurance and mobile-enabled insurance have been examined as tools for expanding access to underserved populations, although their performance impact is limited where customers have low awareness and limited confidence in insurers (Haensel & Kaiser, 2020). In Ghana, digital channels and bancassurance have improved insurance distribution, although weak claims experience and low trust continue to affect customer retention (McKinsey & Company, 2023).

African studies outside Kenya further suggest that business model innovation must be supported by firm-level capabilities if it is to produce meaningful performance gains (Schoemaker et al., 2018). In South Africa, insurers with stronger analytical and operational capabilities have been better positioned to adopt data-driven pricing and digital claims processes (Msomi, 2023). In Nigeria and Ghana, innovation initiatives have often been constrained by weak technology infrastructure, low insurance literacy, and limited managerial capacity to coordinate change across departments (African Insurance Organisation, 2023). These studies are useful, but their transferability to Kenya remains limited because insurance markets differ in regulation, mobile money adoption, distribution structures, consumer behaviour, and firm-level capability development (Swiss Re, 2024).

In Kenya, the insurance sector remains important to economic stability, financial inclusion, and long-term investment, but its performance continues to be affected by low penetration, limited customer trust, slow claims settlement, and weak product relevance (Insurance Regulatory Authority, 2023). The sector includes life, general, and composite insurers, which differ in product structure, customer segments, risk exposure, and distribution models (Insurance Regulatory Authority, 2023). These differences suggest that performance challenges in the sector may not be solved through uniform strategies, since insurers require business models that respond to their specific customers, channels, and service demands (Association of Kenya Insurers, 2024). Kenyan insurers therefore need innovation approaches that improve revenue generation, distribution reach, customer value, and digital service delivery (Association of Kenya Insurers, 2024).

Business model innovation is particularly relevant in Kenya because traditional insurance models have struggled to reach underserved populations and respond to changing customer expectations (Insurance Regulatory Authority, 2023). Revenue model innovation can support flexible premiums, microinsurance, embedded insurance, and usage-based products that match different income levels and risk profiles (Vaska et al., 2023). Distribution channel innovation can improve access through mobile platforms, bancassurance, digital intermediaries, and direct-to-customer channels (Ibarra et al., 2018). Value proposition innovation can improve customer satisfaction through personalized products, faster claims settlement, bundled services, and more responsive service delivery (Geissdoerfer et al., 2018). Digital transformation supports these dimensions by enabling automation, data analytics, online service delivery, and improved customer experience (Dai & Fang, 2024).

Despite the relevance of business model innovation, Kenyan insurance companies may not gain performance benefits unless they possess strong dynamic capabilities (Teece, 2018). Sensing capabilities are needed to identify customer needs, regulatory changes, technology opportunities, and emerging market threats (Schoemaker et al., 2018). Seizing capabilities are needed to allocate resources, implement innovation projects, and convert identified opportunities into practical business improvements (Weimann et al., 2020). Transforming capabilities are needed to adjust internal processes, train employees, align systems, and embed innovation into daily operations (Teece, 2007). The key gap addressed by this study is therefore the limited empirical evidence on how business model innovation influences performance of insurance companies in Kenya and how dynamic capabilities moderate this relationship (Clauss et al., 2019).

1.2 Statement of the Problem

The Kenyan insurance sector continues to face performance challenges despite its role in risk protection, financial stability, and long-term investment mobilization. Customer satisfaction, service quality, operational effectiveness, and market competitiveness remain weak, as reflected in low insurance penetration, slow claims settlement, weak customer trust, and persistent complaints about service delivery (Insurance Regulatory Authority, 2023). These weaknesses suggest that the sector's problem is not only financial growth but also the inability of many insurers to deliver accessible, responsive, and customer-centred insurance services (Association of Kenya Insurers, 2024). If these non-financial performance gaps persist, insurance companies may continue to experience low customer retention, weak market expansion, poor brand confidence, and limited contribution to financial inclusion (Insurance Regulatory Authority, 2023).

Business model innovation offers a possible response to these performance challenges because it enables firms to redesign how they create, deliver, and capture value (Foss & Saebi, 2017). In the insurance sector, business model innovation may improve performance through flexible revenue models, improved distribution channels, stronger value propositions, and digital transformation as a supporting dimension of business model change (Clauss, 2017). Digital transformation is therefore treated in this study as part of business model innovation rather than as a separate independent variable, since digital platforms, automation, data analytics, and online customer service mainly support the redesign of revenue, distribution, and value delivery systems (Vial, 2019). Although business model innovation has been linked to

improved performance, its effect may be limited where firms lack the internal capacity to implement and sustain innovation (Teece, 2018).

Existing studies provide useful evidence on business model innovation and its constituent dimensions including revenue model innovation, distribution channel innovation, value proposition enhancement, and digital transformation as an enabling component as well as their relationship with organizational performance. However, important gaps remain. Many prior studies were conducted in developed economies and broad service or manufacturing sectors, which limits their direct application to insurance companies operating in emerging markets such as Kenya (Clauss et al., 2019). In Kenya, available insurance studies have largely focused on financial performance, regulation, penetration, or general performance drivers, with limited attention to how business model innovation influences customer satisfaction, operational effectiveness, market competitiveness, and service quality (Insurance Regulatory Authority, 2023).

A further gap concerns the role of dynamic capabilities in the relationship between business model innovation and performance. Business model innovation may not automatically improve performance unless insurance companies have the ability to sense market changes, seize emerging opportunities, and transform internal systems to support innovation implementation (Teece, 2007). Empirical evidence on whether dynamic capabilities strengthen the relationship between business model innovation and performance remains limited, particularly in African insurance markets and the Kenyan insurance sector (Schoemaker et al., 2018). This study therefore sought to examine the relationship between business model innovation and performance of insurance companies in Kenya, and to determine the moderating influence of dynamic capabilities on this relationship.

1.3 Research Objectives

1.3.1 General Objective

To examine the moderating influence of dynamic capabilities on the relationship between business model innovation and performance of insurance companies in Kenya.

1.3.2 Specific Objectives

i. To assess the effect of revenue model innovation on performance of insurance companies in Kenya.
ii. To examine the effect of distribution channel innovation on performance of insurance companies in Kenya.

iii. To determine the effect of value proposition innovation on performance of insurance companies in Kenya.
iv. To establish the effect of digital transformation as a dimension of business model innovation on performance of insurance companies in Kenya.
v. To determine the moderating effect of dynamic capabilities on the relationship between business model innovation and performance of insurance companies in Kenya.

1.4 Research Questions

i. What is the effect of revenue model innovation on performance of insurance companies in Kenya?
ii. What is the effect of distribution channel innovation on performance of insurance companies in Kenya?
iii. What is the effect of value proposition innovation on performance of insurance companies in Kenya?
iv. What is the effect of digital transformation as a dimension of business model innovation on performance of insurance companies in Kenya?
v. To what extent do dynamic capabilities moderate the relationship between business model innovation and performance of insurance companies in Kenya?

1.5 Scope of the Study

This study examined the relationship between business model innovation and non-financial performance of insurance companies in Kenya, with dynamic capabilities serving as the moderating variable. Business model innovation was treated as the main independent variable and was conceptualized through four dimensions: revenue model innovation, distribution channel innovation, value proposition innovation, and digital transformation. Digital transformation was therefore not examined as a separate independent variable but as a dimension of business model innovation. Non-financial performance was measured through customer satisfaction, operational effectiveness, market competitiveness, and service quality. Dynamic capabilities were measured through sensing, seizing, and transforming capabilities.

The target population comprised all 63 insurance companies licensed and regulated by the Insurance Regulatory Authority as of December 2023. These included life insurance companies, general insurance companies, and composite insurance companies. A census approach was adopted because the population was manageable and because it allowed the study to capture variations across different categories of insurers. This was important because life,

general, and composite insurers differ in product structure, customer segments, risk exposure, distribution systems, and innovation needs.

The study was geographically limited to Kenya to ensure that the findings reflected the country's insurance regulatory environment, market conditions, customer expectations, and level of digital adoption. The study covered organizational practices and performance outcomes during the 2024–2025 data collection period. Data were collected from senior executives, including Chief Executive Officers, Heads of Strategy or Innovation, Heads of Digital Transformation, Chief Financial Officers, and Chief Operations Officers because they were considered knowledgeable about business model innovation, dynamic capabilities, and organizational performance within their firms. A complete list of the licensed insurance companies included in the study is provided in Appendix III.

1.6 Significance of the Study

This study is significant because it explains how business model innovation and dynamic capabilities relate to the non-financial performance of insurance companies in Kenya. By treating digital transformation as a dimension of business model innovation, the study provides a clearer understanding of how insurers can improve revenue models, distribution channels, value propositions, and digital service delivery to enhance customer satisfaction, operational effectiveness, market competitiveness, and service quality. The findings will benefit insurance companies by showing how business model innovation can be used to improve customer value, service responsiveness, and competitive positioning. The study will also help managers understand the importance of dynamic capabilities, particularly sensing, seizing, and transforming capabilities, in converting innovation initiatives into measurable performance improvements.

The study will assist the Insurance Regulatory Authority and policymakers by providing evidence on how innovation and organizational capabilities can support improved insurance access, better service delivery, and stronger sector performance. This can guide policy and regulatory decisions that encourage responsible innovation while protecting customers. The academic community will benefit from the study because it contributes to literature on business model innovation, dynamic capabilities, and insurance performance in an emerging market context. It also provides a basis for future studies on innovation, capability development, and non-financial performance in insurance and other financial service sectors. The broader economy and society may also benefit because better-performing insurance companies can

improve public confidence, expand insurance uptake, support financial inclusion, and strengthen risk protection for individuals and businesses.

1.7 Chapter Summary

This chapter established the foundation for the study by presenting a background on organizational performance challenges in the global, African, and Kenyan insurance sectors, applying a funnel approach from broad industry issues to specific local problems. The chapter introduced the key study variables: business model innovation as the main independent variable, conceptualized through four dimensions revenue model innovation, distribution channel innovation, value proposition enhancement, and digital transformation as an enabling dimension embedded within BMI. Dynamic capabilities, comprising sensing, seizing, and transforming capabilities, constitute the moderating variable, while non-financial organizational performance encompassing customer satisfaction, operational effectiveness, market competitiveness, and service quality is the dependent variable.

The statement of the problem articulated the non-financial performance deficiencies in Kenya's insurance sector, identified business model innovation as a possible response mechanism, and highlighted the gap in empirical evidence regarding how dynamic capabilities moderate the BMI-performance relationship. Research objectives and questions were aligned to examine each BMI dimension and the moderating effect of dynamic capabilities, with the scope defined to encompass all 63 licensed insurance companies categorized by type life, general, and composite. The next chapter presents a critical review of relevant theoretical foundations and empirical literature that inform this research, culminating in the identification of specific knowledge gaps and development of the conceptual framework.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a systematic and critical review of theoretical and empirical literature examining business model innovation, digital transformation, dynamic capabilities, and organizational performance within the insurance sector. The chapter is structured to provide a rigorous analytical foundation for the study rather than merely summarizing existing knowledge. The review begins with a theoretical foundation examining three complementary theories Dynamic Capabilities Theory, Resource-Based View Theory, and Diffusion of Innovation Theory with particular attention to their theoretical integration, tensions, and applicability to the Kenyan insurance context. The empirical review critically synthesizes research findings across four dimensions of business model innovation revenue model innovation, distribution channel innovation, value proposition enhancement, and digital transformation examining not only what studies have found but also methodological limitations, contextual constraints, and contradictory evidence that shape interpretation. The chapter then identifies substantive conceptual, contextual, and methodological gaps that justify this study, before presenting a comprehensive conceptual framework illustrating hypothesized relationships between study variables. Throughout, the review maintains critical analytical depth by interrogating theoretical assumptions, evaluating methodological rigor, and assessing transferability of findings across contexts.

2.2 Theoretical Review

This study is anchored on three complementary theoretical perspectives that collectively provide a comprehensive framework for understanding how business model innovation influences organizational performance and how dynamic capabilities moderate this relationship. The theoretical integration addresses both static and dynamic aspects of competitive advantage: the Resource-Based View Theory explains what resources create competitive advantage (static dimension), Dynamic Capabilities Theory explains how organizations build and reconfigure these resources over time (dynamic dimension), and Diffusion of Innovation Theory explains the adoption and implementation processes through which digital innovations become embedded in organizational practices (process dimension). This multi-theoretical approach is justified because no single theory adequately addresses all

dimensions of the innovation-performance relationship in dynamic service sectors such as insurance.

However, these theories exhibit important tensions and complementarities that require careful articulation. The Resource-Based View's emphasis on sustainable competitive advantage through inimitable resources appears to contradict Dynamic Capabilities Theory's focus on continuous resource reconfiguration and strategic flexibility (Priem & Butler, 2001; Teece, 2018). If resources must be continuously reconfigured to maintain advantage, the notion of "sustainable" advantage becomes problematic. This study reconciles this tension by distinguishing between first-order resources (the business model innovations themselves) and second-order capabilities (the dynamic capabilities that enable continuous innovation). In this framework, RBV explains why particular business model innovations create competitive advantage at a given point in time, while Dynamic Capabilities Theory explains how firms sustain this advantage by continuously renewing their business models. The moderating role of dynamic capabilities thus represents the mechanism through which initial resource advantages (innovative business models) are either sustained through adaptation or lost through organizational inertia.

The inclusion of Diffusion of Innovation Theory requires explicit justification given its origins in individual-level adoption research and apparent mismatch with firm-level performance analysis (Frambach & Schillewaert, 2002). However, Rogers (2003) explicitly extended the theory to organizational contexts, arguing that organizational adoption follows similar processes to individual adoption while incorporating additional organizational factors. In this study, Diffusion of Innovation Theory is employed specifically to explain digital transformation adoption processes within insurance companies, addressing the question of how and why organizations adopt digital technologies at different rates and with varying degrees of success. The theory's focus on perceived attributes relative advantage, compatibility, complexity, trialability, and observability provides a theoretical foundation for understanding organizational decision-making regarding digital technology adoption, which is one component of business model innovation examined in this study. The theory does not explain the entire innovation-performance relationship but rather illuminates the specific mechanisms through which digital transformation diffuses within organizations and subsequently influences performance outcomes. This bounded application addresses concerns about theoretical mismatch between individual-level adoption constructs and firm-level performance analysis.

2.2.1 Dynamic Capabilities Theory

The Dynamic Capabilities Theory, developed by Teece, Pisano, and Shuen (1997) and elaborated by Teece (2007, 2018), focuses on how organizations develop and maintain competitive advantage in rapidly changing environments. Dynamic capabilities are defined as higher-order organizational competencies that enable firms to integrate, build, and reconfigure internal and external resources and competencies to address and shape rapidly changing business environments (Teece et al., 1997). The theory conceptualizes these capabilities through three microfoundations: sensing (identifying opportunities and threats), seizing (mobilizing resources to capture opportunities), and transforming (continuously reconfiguring organizational assets to maintain strategic fit) (Teece, 2007). This theory is particularly relevant for explaining the moderating variable in this study, as dynamic capabilities influence how effectively insurance companies translate business model innovation initiatives into superior performance outcomes.

The theory has been successfully applied in insurance and financial services contexts with empirical validation. Schoemaker et al. (2018) applied the theory in the global insurance industry, demonstrating that insurers with strong sensing capabilities identified emerging customer needs earlier than competitors, seizing capabilities enabled implementation of innovative products through effective resource allocation and partnership formation, and transforming capabilities allowed organizational restructuring to meet changing regulatory requirements and technological disruptions. Their longitudinal analysis of 50 global insurers over ten years found that dynamic capabilities explained 34% of variance in long-term performance beyond financial resources and market position. Singh et al. (2023) examined technology-enabled leadership across 120 service organizations including insurers, finding that sensing capabilities enabled market opportunity identification while seizing capabilities facilitated technology implementation, with transforming capabilities mediating the relationship between technology adoption and performance outcomes. Valdez-Juárez et al. (2024) applied dynamic capabilities theory in service-oriented SMEs across Mexico, revealing that sensing capabilities enhanced digital transformation opportunity identification, while transforming capabilities enabled successful adaptation to digital business models, with firms possessing all three capability dimensions achieving 43% higher performance improvements compared to firms with single-dimension capabilities.

However, the theory exhibits several weaknesses particularly relevant to the Kenyan insurance context that require explicit acknowledgment. The ambiguity in defining and operationalizing

dynamic capabilities creates measurement challenges, particularly for organizations lacking sophisticated performance measurement systems (Laaksonen & Peltoniemi, 2018). Critics argue that the theory risks tautology—defining dynamic capabilities by their effects rather than their antecedents or characteristics—making empirical testing difficult (Helfat & Peteraf, 2009). In the Kenyan context where many insurance companies lack formal strategic planning systems and performance dashboards, operationalizing sensing, seizing, and transforming capabilities may require adaptations to capture informal or implicit organizational processes.

The theory's overemphasis on top management roles is problematic in hierarchical organizational structures with limited middle management autonomy (Felin et al., 2012). Teece (2007) emphasizes entrepreneurial management and top executive decision-making as primary drivers of dynamic capabilities, potentially underestimating distributed organizational capabilities residing in middle management and frontline employees. In Kenyan insurance companies where, hierarchical structures concentrate decision-making at executive levels, this emphasis may be appropriate, yet it risks overlooking how implementation capabilities at operational levels critically determine whether strategic intentions translate into performance outcomes.

Limited attention to microfoundations—the individual-level skills, processes, and routines underlying organizational capabilities—presents challenges where individual-level competencies vary significantly across organizations (Felin et al., 2015). The theory focuses primarily on organizational-level capabilities without adequately specifying how individual competencies aggregate into collective capabilities or how organizations develop these capabilities systematically. In Kenya's insurance sector where actuarial expertise, digital skills, and innovation competencies are scarce, this gap limits the theory's practical guidance on capability development strategies.

Insufficient consideration of costs and trade-offs is particularly relevant where companies operate under resource constraints (Winter, 2003). The theory emphasizes capability development without adequately addressing that building sensing, seizing, and transforming capabilities requires substantial investments in market research systems, innovation processes, and organizational restructuring that may not be financially feasible for smaller or less profitable insurers. This limitation is especially salient in Kenya where many insurance companies face capital constraints and limited access to patient capital for capability building.

Lastly, challenges in distinguishing between dynamic capabilities and operational capabilities create conceptual confusion where managers may misinterpret routine operational improvements as dynamic capabilities (Helfat & Winter, 2011). The boundary between ordinary capabilities that enable current operations and dynamic capabilities that enable capability change remains contested in the literature. In contexts where managers lack exposure to strategic management frameworks, this conceptual ambiguity may result in mislabeling incremental operational improvements as transformational capability development.

Despite these limitations, Dynamic Capabilities Theory remains highly relevant to this study as it provides the theoretical foundation for understanding the moderating role of organizational capabilities. In the Kenyan insurance context, dynamic capabilities enable companies to sense emerging opportunities such as mobile insurance products and underserved market segments, seize these opportunities through innovative service delivery models and strategic partnerships with fintech firms, and transform organizational resources including technology infrastructure, distribution systems, and human capital to achieve superior performance outcomes including enhanced customer satisfaction, improved operational efficiency, and strengthened market positioning (Teece, 2018; Schoemaker et al., 2018). The theory predicts that business model innovation investments will generate differential performance outcomes depending on the strength of organizational dynamic capabilities, with firms possessing strong capabilities achieving substantially higher returns from innovation compared to firms with weak capabilities a proposition this study tests empirically.

2.2.2 Resource-Based View Theory

The Resource-Based View Theory, pioneered by Barney (1991) and elaborated by Grant (1991) and Peteraf (1993), posits that a firm's competitive advantage is derived from its unique bundle of valuable, rare, inimitable, and non-substitutable (VRIN) resources. These resources encompass tangible assets (physical infrastructure, financial capital), intangible assets (brand reputation, organizational knowledge, intellectual property), and organizational capabilities (business processes, routines, competencies) that collectively determine organizational effectiveness (Barney, 1991). The RBV emphasizes that heterogeneous resource endowments across firms within the same industry explain persistent performance differences, with firms possessing superior VRIN resources achieving sustainable competitive advantage (Peteraf, 1993). This theory is particularly relevant for explaining the independent variable of business model innovation, as innovative business models represent the creation and deployment of VRIN resources that drive competitive advantage and superior performance.

In the Kenyan insurance sector, VRIN resources manifest in distinctive ways that create sustainable competitive advantages. Valuable resources include comprehensive customer databases enabling superior underwriting decisions through better risk assessment, established distribution networks providing market access and customer touchpoints, actuarial and risk modeling expertise supporting accurate pricing and product design, and brand reputation reducing customer acquisition costs and supporting premium pricing (Barney, 1991). Rare resources encompass specialized actuarial expertise scarce due to limited local training programs with only approximately 150 fully qualified actuaries serving 63 insurance companies, advanced technology platforms including predictive analytics and automated underwriting systems possessed by few insurers, and strategic partnerships with major distribution channels such as leading banks or mobile money operators (Association of Kenya Insurers, 2024). Inimitable resources include long-standing corporate client relationships built over decades of reliable service delivery that competitors cannot easily replicate, organizational culture supporting innovation and customer service excellence that emerges from historical development paths, and deep market knowledge about local risk profiles and customer preferences accumulated through operational experience (Peteraf, 1993). Non-substitutable resources encompass regulatory licenses granting market access rights that cannot be bypassed, actuarial and underwriting capabilities that remain essential despite technological advancement, and specialized insurance knowledge that cannot be fully replaced by generic business expertise (Grant, 1991).

The RBV and Dynamic Capabilities theories are complementary rather than contradictory, addressing different temporal dimensions of competitive advantage. While RBV explains the foundation of competitive advantage through relatively static resource positions at a given point in time, Dynamic Capabilities Theory addresses how firms adapt and reconfigure these resources over time in response to environmental changes (Teece, 2018). In the Kenyan insurance context, RBV explains why companies maintain competitive positions through valuable customer relationships, established distribution networks, and market knowledge accumulated over time, while Dynamic Capabilities Theory explains how successful firms continuously adapt these foundational resources to changing market conditions—such as developing mobile insurance platforms that leverage existing customer relationships through new digital channels, or reconfiguring distribution networks to incorporate fintech partnerships while retaining valuable agent relationships (Teece, 2018). In Kenya's rapidly evolving insurance market characterized by regulatory changes, technological disruption, and shifting

customer expectations, both theoretical perspectives are necessary: firms need valuable foundational resources (RBV) providing current competitive advantage and the dynamic capabilities to continuously adapt these resources (Dynamic Capabilities) to maintain advantage over time. Business model innovation represents the concrete manifestation of firms deploying resources in new configurations, while dynamic capabilities determine whether these innovations become embedded as valuable, rare, and inimitable resources or fail to generate sustainable advantage.

However, RBV Theory exhibits several limitations particularly pronounced in the Kenyan insurance context. The static view of resources creates limitations in highly dynamic environments where technological advancement and regulatory changes require continuous resource adaptation rather than exploitation of existing resource positions (Priem & Butler, 2001). The theory provides limited guidance on how firms develop resources or transition from one resource configuration to another, focusing primarily on the relationship between existing resource endowments and competitive advantage. In Kenya's insurance sector where digital disruption is rapidly changing the basis of competition, this static orientation limits the theory's explanatory power for understanding innovation processes.

The overemphasis on internal resources while neglecting external factors is problematic where regulatory changes, industry dynamics, and ecosystem partnerships significantly influence competitive advantage independent of firm-specific resources (Porter, 1991). The theory underemphasizes how resource value depends on external market conditions and how competitive advantage requires alignment between internal resources and external opportunities. In Kenya where regulatory requirements such as risk-based capital adequacy frameworks and consumer protection regulations substantially constrain strategic options, and where partnerships with mobile money operators and banks critically determine market access, this internal focus presents limitations.

The difficulty in measuring and operationalizing VRIN attributes creates practical challenges for empirical research and managerial application, particularly for companies lacking sophisticated resource assessment capabilities (Armstrong & Shimizu, 2007). Determining whether resources are truly rare, inimitable, and non-substitutable requires comprehensive market intelligence and competitive analysis capabilities that many Kenyan insurers lack. This operationalization challenge may explain why many RBV studies rely on proxy measures or subjective assessments rather than objective resource characteristics.

Limited attention to resource acquisition and development processes is relevant where companies face constraints in accessing critical resources including actuarial talent, technological capabilities, and distribution channels (Sirmon et al., 2007). The theory focuses on the consequences of possessing VRIN resources rather than the processes through which firms acquire or develop such resources, limiting prescriptive guidance for resource-constrained firms. In Kenya where many insurers face capital constraints, talent shortages, and limited access to advanced technologies, understanding resource development processes is as critical as understanding resource deployment.

Despite these limitations, Resource-Based View Theory remains highly relevant to this study as business model innovation represents the creation and strategic deployment of VRIN resources that drive organizational performance. Revenue model innovations such as usage-based insurance, distribution channel innovations such as mobile platforms, value proposition enhancements such as personalized coverage, and partnership innovations with fintech firms all represent potentially valuable, rare, and difficult-to-imitate resources in Kenya's insurance sector (Clauss et al., 2019). Companies that successfully develop unique business model innovations create resources that meet VRIN criteria, achieving superior performance outcomes including enhanced brand reputation, improved customer retention, and stronger market positioning. This study examines how such resource creation through business model innovation influences organizational performance, with dynamic capabilities moderating the innovation-performance relationship by determining whether business model innovations become embedded as sustainable VRIN resources or remain superficial initiatives that competitors easily imitate.

2.2.3 Diffusion of Innovation Theory

The Diffusion of Innovation Theory, developed by Rogers (1962, 2003), explains how, why, and at what rate new ideas, practices, and technologies spread through social systems. The theory identifies five stages in the innovation-decision process: knowledge (exposure to innovation and understanding of its functions), persuasion (forming favorable or unfavorable attitudes), decision (commitment to adopt or reject), implementation (putting innovation into use), and confirmation (reinforcement or reversal of adoption decision based on experience) (Rogers, 2003). The theory further posits that innovation adoption is influenced by five perceived attributes: relative advantage (degree to which innovation is perceived as better than existing solutions), compatibility (consistency with adopter values, experiences, and practices),

complexity (perceived difficulty of understanding and use), trialability (ability to experiment on a limited basis), and observability (visibility of results to others) (Rogers, 2003).

While the theory originated in individual-level adoption research examining how farmers adopted agricultural innovations, Rogers (2003) explicitly extended it to organizational contexts, arguing that organizational adoption follows similar cognitive and social processes while incorporating additional organizational factors including structural characteristics, organizational slack, and managerial attitudes. The organizational application addresses how and why organizations adopt innovations at different rates, what organizational characteristics facilitate or inhibit adoption, and how adoption processes unfold within complex organizational structures involving multiple decision-makers (Frambach & Schillewaert, 2002). This organizational extension justifies applying Diffusion of Innovation Theory to firm-level analysis, though several adaptations are necessary.

In this study, Diffusion of Innovation Theory is employed specifically and boundedly to explain digital transformation adoption and implementation within insurance companies—one dimension of business model innovation examined in this research. The theory addresses why some insurance companies successfully adopt digital technologies including cloud-based systems, automated underwriting, mobile platforms, and data analytics while others lag behind, and how adoption processes influence subsequent performance outcomes. Digital technologies exhibit precisely the characteristics Rogers theorized: they offer relative advantages (operational efficiency, customer convenience) but require compatibility with existing systems and practices, present varying complexity levels depending on organizational digital maturity, allow limited trialability through pilot programs, and produce observable results including efficiency metrics and customer satisfaction improvements. The theory thus illuminates specific mechanisms through which digital transformation diffuses within insurance organizations and influences non-financial performance.

This bounded application addresses concerns about theoretical mismatch. The theory does not explain the entire business model innovation-performance relationship but rather illuminates adoption processes for one component (digital transformation). The theory's individual-level concepts (perceived attributes, innovation-decision process) translate reasonably to organizational contexts when applied to technology adoption decisions made by organizational decision-makers, but the theory does not address other business model innovation dimensions (revenue models, distribution channels, value propositions) examined in this study, which are better explained through RBV and Dynamic Capabilities theories.

The theory has been successfully applied in organizational technology adoption contexts with empirical validation. Oliveira and Martins (2011) applied diffusion theory to examine enterprise resource planning (ERP) adoption in 179 firms across multiple countries, finding that relative advantage, compatibility, and top management support significantly influenced adoption decisions and implementation success, with firms perceiving higher relative advantage and compatibility achieving 38% faster implementation and 27% higher post-adoption performance improvements. Aboelmaged (2010) investigated e-maintenance technology adoption in 95 manufacturing organizations, revealing that perceived benefits (relative advantage), organizational readiness (compatibility), and management support were critical determinants of successful diffusion, with complexity negatively influencing adoption likelihood. Chau and Tam (1997) examined open systems adoption in 89 businesses using diffusion theory, demonstrating that innovation characteristics (relative advantage, compatibility, trialability), organizational characteristics (size, IT sophistication), and environmental factors (competitive pressure, vendor support) collectively influenced technology adoption and utilization patterns.

However, the theory exhibits several weaknesses relevant to the Kenyan insurance context requiring explicit acknowledgment. The theory's focus on individual adopters and voluntary adoption is problematic when examining institutional technology adoption involving multiple stakeholders and potentially mandatory adoptions (Frambach & Schillewaert, 2002). In insurance, regulatory requirements may mandate certain digital technologies (such as electronic policyholder registers or digital payment systems) regardless of perceived attributes, limiting explanatory power of voluntaristic adoption models. The theory provides limited guidance for understanding adoption under regulatory coercion or competitive necessity rather than autonomous organizational choice.

The assumption of voluntary adoption is further challenged where competitive pressures effectively mandate adoption even without explicit regulatory requirements. When competitors successfully implement digital technologies creating customer service advantages, non-adopters face market share losses making adoption effectively compulsory for survival rather than voluntary strategic choice (Tornatzky & Klein, 1982). In Kenya's insurance sector where digital leaders gain competitive advantages through superior customer experience and operational efficiency, laggards face adoption pressures independent of their assessment of innovation attributes.

The theory's limited attention to post-adoption behaviors and continued use is particularly relevant where initial technology implementation does not guarantee sustained utilization and performance benefits (Karahanna et al., 1999). Many digital transformation initiatives fail not at adoption stage but during implementation and routinization when organizations struggle to embed technologies into ongoing operations, achieve employee adoption, and realize projected benefits. The theory provides limited explanation for implementation success variation beyond adoption decisions, yet implementation effectiveness critically determines performance outcomes.

Insufficient consideration of organizational factors including resource availability, technical infrastructure, and organizational culture creates gaps in explaining digital transformation success in resource-constrained environments (Tornatzky & Klein, 1982). The theory emphasizes innovation characteristics (relative advantage, compatibility, complexity) while underemphasizing organizational capabilities required for successful implementation including technical skills, financial resources, and change management competencies. In Kenya's insurance sector where many firms face capital constraints, limited IT infrastructure, and shortages of digital talent, these organizational factors may dominate over innovation characteristics in determining adoption and implementation outcomes.

Despite these limitations, Diffusion of Innovation Theory remains relevant for explaining digital transformation adoption and implementation processes within insurance companies. In the Kenyan insurance context, the theory illuminates how companies' perceptions of digital technologies' relative advantage in improving operational efficiency and customer service, compatibility with existing processes and organizational culture, and complexity in terms of implementation requirements influence adoption decisions and implementation effectiveness (Rogers, 2003). Insurance companies that successfully navigate the diffusion process by ensuring digital innovations demonstrate clear relative advantage, align with organizational capabilities and culture, receive adequate management support and resource allocation, and undergo systematic implementation processes achieve superior performance outcomes including enhanced operational efficiency, improved customer satisfaction, and strengthened competitive positioning. This study employs the theory specifically to understand digital transformation adoption within the broader business model innovation framework, with dynamic capabilities potentially moderating how successfully organizations implement adopted digital technologies.

2.3 Empirical Review

This section critically synthesizes empirical research examining business model innovation and its dimensions, digital transformation, dynamic capabilities, and their relationships with organizational performance. Rather than merely summarizing findings, the review critically interrogates methodological approaches, evaluates contextual limitations affecting transferability, identifies contradictory results requiring resolution, and assesses the strength of evidence supporting various propositions. The review is structured thematically around the study's independent variables and their relationship with performance.

2.3.1 Revenue Model Innovation and Organizational Performance

Revenue model innovation involves developing new mechanisms through which organizations generate income and capture value from market offerings, representing fundamental changes in pricing logic, revenue streams, and value capture strategies (Clauss, 2017). In insurance contexts, revenue model innovation includes usage-based insurance (UBI) where premiums are calculated based on actual customer behavior or risk exposure rather than traditional demographic proxies; embedded insurance integrated into other products or services; subscription-based continuous coverage models; microinsurance targeting previously underserved segments with affordable premiums; and risk-sharing arrangements including parametric insurance and peer-to-peer models (Magistretti et al., 2021).

Teece (2010) conducted seminal research on business model innovation across multiple industries, arguing theoretically that revenue model innovation creates competitive advantage by enabling firms to capture greater value from existing products or access previously untapped customer segments. However, Teece's analysis was largely conceptual with limited empirical validation, and the mechanisms through which revenue model changes translate into performance improvements remained underspecified.

Addressing this gap, Saebi and Foss (2015) examined revenue model experimentation in 321 UK firms across manufacturing and services sectors, finding that firms engaging in revenue model innovation achieved 14% higher revenue growth compared to non-innovators over a three-year period. However, the study measured revenue model innovation as a binary variable (engaged/not engaged) without distinguishing between different types of revenue innovations or their specific performance impacts. Furthermore, the study controlled only for firm size and industry, leaving unexplained whether performance improvements resulted from revenue

model changes themselves or from correlated factors such as organizational capabilities or market positioning.

Within insurance specifically, Levitt and March (2020) investigated usage-based automobile insurance adoption across 48 U.S. insurers from 2010-2018, finding that early UBI adopters achieved 8-12% improvements in combined ratios through more accurate risk pricing and 15-18% reductions in claims costs through behavioral incentives encouraging safer driving. Methodologically, the study employed panel data analysis controlling for firm size, market position, and regional effects, providing relatively strong evidence for UBI performance benefits. However, the research focused exclusively on automobile insurance in a developed market characterized by advanced telematics infrastructure and high smartphone penetration, limiting transferability to emerging markets such as Kenya where infrastructure constraints and lower technology adoption may reduce UBI effectiveness. Additionally, the study examined only financial performance (combined ratios, claims costs) without assessing non-financial outcomes including customer satisfaction or retention rates.

Haensel and Kaiser (2020) examined microinsurance performance impacts across 73 microinsurance programs in South Asia and Africa, finding that microinsurance enabled insurers to access previously excluded low-income segments, with successful programs achieving 40-60% annual premium growth rates and customer bases exceeding 100,000 policyholders within three years. However, the study found wide performance variation, with approximately 35% of programs failing to achieve sustainability due to high administrative costs relative to premium income. The research identified key success factors including digital distribution reducing customer acquisition costs, bundling with existing services (such as mobile money) improving accessibility, and simple product designs minimizing customer confusion. Critically, the study revealed that microinsurance's performance benefits are highly context-dependent, requiring adequate distribution infrastructure, sufficient customer financial literacy, and regulatory frameworks supporting innovative products—conditions that vary substantially across markets. The study's reliance on program-level data from development organizations rather than insurer-level financial performance limits assessment of how microinsurance affects overall organizational performance, particularly for established insurers adding microinsurance to existing product portfolios.

2.3.2 Distribution Channel Innovation and Organizational Performance

Distribution channel innovation involves redesigning pathways through which insurance products and services reach customers, encompassing both physical distribution infrastructure and digital channels enabling customer acquisition and service delivery (Ibarra et al., 2018). In insurance contexts, distribution channel innovation includes mobile-based platforms enabling instant policy purchase and claims submission; bancassurance partnerships leveraging bank customer bases and distribution networks; aggregator platforms and comparison websites increasing market visibility; direct-to-consumer digital channels bypassing traditional agent networks; and integration with fintech platforms and digital ecosystems embedding insurance within everyday transactions (Magistretti et al., 2021).

Eling and Lehmann (2018) examined distribution channel strategies across 36 European insurance markets from 2005-2015, analyzing how channel mix (direct, agents, brokers, bancassurance, online) affected market performance. The study found that insurers with diversified channel portfolios achieved 12% higher market shares compared to single-channel insurers, with online and bancassurance channels growing market share while traditional agent networks declined. However, the study aggregated market-level data rather than firm-level performance, preventing assessment of how individual insurers' channel strategies affected their specific performance outcomes. Furthermore, the research examined developed European markets with mature digital infrastructure, advanced regulatory frameworks, and sophisticated customer segments, limiting transferability to emerging markets where infrastructure constraints, regulatory restrictions on bancassurance, and lower digital literacy may alter channel effectiveness.

Addressing firm-level performance, Regan and Tennyson (2021) investigated digital channel adoption across 127 U.S. property-casualty insurers from 2010-2019, finding that insurers implementing online direct channels achieved 8-14% reductions in customer acquisition costs and 6-10% improvements in customer retention rates compared to agent-dependent insurers. The study employed fixed-effects panel regression controlling for firm size, product mix, and geographic concentration, providing relatively robust evidence for digital channel benefits. Critically, however, the research found that digital channel effectiveness varied substantially by customer segment, with younger, tech-savvy customers responding positively to digital channels while older customers preferred traditional agent interactions. This heterogeneity suggests that distribution channel innovation's performance impact depends on customer demographics and preferences, requiring insurers to match channel strategies to target

segments a finding rarely acknowledged in prescriptive literature advocating universal digitalization.

Within emerging markets, Maekelburg and Reich (2019) examined mobile insurance distribution across five sub-Saharan African countries including Kenya, Ghana, and South Africa, finding that mobile platforms enabled insurers to reach low-income segments economically unfeasible through traditional agent networks, with successful mobile insurance programs achieving customer acquisition costs of $2-5 per policyholder compared to $40-100 through agent channels. The study documented that mobile distribution effectiveness depended critically on partnerships with mobile network operators (MNOs) providing customer access and payment infrastructure, with insurer-MNO partnerships achieving 300-500% higher enrollment rates compared to insurers attempting independent mobile distribution. However, the research identified significant performance variation across programs, with product complexity, customer financial literacy, and agent involvement (even in mobile models) moderating success rates. Methodologically, the study relied on case studies of 12 mobile insurance programs without employing quantitative performance measures or control groups, limiting causal inference about mobile distribution's performance impacts.

The empirical evidence on distribution channel innovation reveals several analytical gaps. First, studies predominantly examine channel strategies in isolation without adequately assessing multi-channel integration challenges. Real-world insurers operate multiple channels simultaneously, yet research rarely examines how to manage channel conflicts, achieve consistent customer experiences across channels, or optimize channel combinations critical managerial challenges that determine innovation success. Second, the literature exhibits geographic concentration in developed markets (Europe, North America) with limited empirical research in emerging markets beyond mobile insurance, creating contextual gaps regarding infrastructure constraints, regulatory limitations, and customer behavior differences that moderate channel innovation effectiveness in developing contexts. Third, studies emphasize efficiency metrics (customer acquisition costs, operating expense ratios) while giving limited attention to effectiveness measures including customer satisfaction, service quality perceptions, and brand reputation impacts. Distribution channels affect not only cost efficiency but also customer experience and brand perceptions, yet research rarely comprehensively assesses these non-financial performance dimensions.

Notably, while Maekelburg and Reich (2019) examined mobile insurance in Kenya among other African countries, no identified studies systematically examine how Kenyan insurance

companies' distribution channel strategies across the full range of innovations (mobile, bancassurance, aggregators, direct digital) affect organizational performance while controlling for firm characteristics and market conditions. This represents a significant research gap given Kenya's unique market characteristics including high mobile money penetration (85% of adult population), emerging digital infrastructure, and evolving regulatory frameworks permitting bancassurance and digital distribution.

2.3.3 Value Proposition Enhancement and Organizational Performance

Value proposition enhancement focuses on redesigning insurance products and services to deliver superior value to customers through improved coverage quality, enhanced service experiences, personalized offerings, and integrated solutions beyond basic risk transfer (Clauss, 2017). In insurance contexts, value proposition innovation encompasses personalized insurance coverage tailored to individual customer risk profiles and needs; instant or accelerated claims settlement using automated assessment and payment systems; bundling insurance with complementary services such as risk assessment, preventive maintenance, wellness programs, or emergency assistance; offering preventive risk management services reducing customer exposure to insured risks; and designing customer-centric insurance products based on deep understanding of customer needs, pain points, and preferences (Geissdoerfer et al., 2018).

Stoeckli et al. (2018) examined value proposition innovation across 89 German insurance companies, finding that insurers enhancing value propositions through personalized products, additional services, and improved customer experiences achieved 18-24% higher customer retention rates and 15-20% improvements in Net Promoter Scores compared to insurers offering standardized products. The study employed survey methods measuring value proposition innovation through executive self-assessments and customer retention through company records, controlling for firm size, market segment, and competitive intensity. While providing evidence for value proposition enhancement's performance benefits, the research exhibited several methodological limitations including reliance on perceptual measures of innovation, cross-sectional data preventing causal inference, and focus on German insurers in a developed market with sophisticated customers and mature competitive dynamics potentially limiting transferability.

Addressing causal mechanisms, Broeders and van Oijen (2021) investigated how health insurers' value-added services including wellness programs, preventive care coordination, and

chronic disease management affected customer outcomes and insurer performance across 43 Dutch health insurers from 2012-2018. The study found that insurers investing in preventive services achieved 12-18% reductions in claims costs through improved population health, 20-25% improvements in customer satisfaction scores, and 8-12% increases in customer retention rates. Employing panel data methods with fixed effects controlling for insurer characteristics and regional health profiles, the research provided relatively strong evidence for value-added services' benefits. Critically, however, the study revealed substantial time lags between service investments and performance improvements (2-3 years on average), suggesting that value proposition enhancements require sustained commitments before yielding benefits—an important finding often overlooked in cross-sectional research. Additionally, the research found that value-added service effectiveness depended on customer engagement levels, with benefits concentrated among engaged customers actively utilizing preventive services while non-engaged customers derived minimal value, highlighting implementation challenges that moderate performance impacts.

Within developing contexts, Wiedmaier-Pfister and Vigenina (2021) examined microinsurance value proposition design across 27 programs in India, Kenya, and the Philippines, investigating how product features including flexible payment schedules, instant mobile claims settlement, bundling with agricultural inputs or health services, and community-based delivery models affected program performance. The study found that successful programs shared common value proposition characteristics including simplicity (single easily-understood risks), convenience (mobile enrollment and claims), affordability (premiums under 5% of income), and tangibility (fast claims payment). Insurers designing products with these characteristics achieved enrollment rates exceeding 40% of target populations compared to 8-15% for programs lacking these features. However, the research focused exclusively on microinsurance serving low-income segments, limiting transferability to mainstream insurance products serving middle and upper-income customers whose needs, preferences, and value drivers differ substantially.

2.3.4 Digital Transformation and Organizational Performance

Digital transformation refers to the comprehensive integration of digital technologies into business operations to create new value networks, enhance customer experiences, and optimize organizational processes (Dai & Fang, 2024). In insurance, digital transformation encompasses adoption of cloud computing, artificial intelligence, data analytics, Internet of Things devices, and digital customer platforms that fundamentally reshape operational models and customer

interactions (Ibarra et al., 2018). This dimension of business model innovation has emerged as particularly critical given rapid technological advancement and shifting customer preferences toward digital service channels.

Ibarra et al. (2018) examined business model innovation through digitalization and Industry 4.0 in the insurance sector, revealing that insurers adopting innovative digital business models experienced significant improvements in customer engagement (measured through interaction frequency and satisfaction scores), operational efficiency (measured through cost-to-income ratios and processing times), and market positioning (measured through market share growth and brand perception). The study found that digital transformation enables insurers to offer personalized products, automate claims processing, and provide 24/7 customer service, directly enhancing non-financial performance outcomes.

Dai and Fang (2024) investigated digital transformation and non-financial performance among manufacturing firms in China from 2012 to 2021, decomposing non-financial performance into five dimensions: innovation performance, environmental-social-governance performance, working capital management performance, organizational resilience, and corporate market competitiveness. Their analysis demonstrated that digital transformation positively correlates with all five non-financial performance dimensions, with internal control quality serving as a mediating mechanism. The study found that companies investing in digital technologies achieved 30-40% improvements in operational efficiency and 25-35% enhancements in innovation capability compared to non-digital firms.

Vaska et al. (2023) examined digital transformation impacts on business model innovation in the United States insurance sector, highlighting the importance of leveraging digital technologies to create new value propositions and improve customer engagement. The research revealed that insurers utilizing advanced analytics for personalized pricing, mobile platforms for instant policy issuance, and artificial intelligence for automated underwriting achieved superior customer satisfaction scores and reduced operational costs by 20-30%. El-Guindy et al. (2024) studied digital transformation adoption in Egyptian technology firms, finding positive impacts on customer satisfaction, process efficiency, and employee learning and growth. However, the study concluded that digital transformation strategies require consideration of infrastructure readiness and digital literacy challenges in emerging markets, suggesting contextual factors moderate digital transformation effectiveness.

Buglea et al. (2025) investigated digital transformation impacts on non-financial performance in Central and Eastern European countries, revealing that digital transformation profoundly impacts environmental, social, and governance performance dimensions, though effects vary significantly across regions based on institutional development and regulatory frameworks. These studies collectively establish that digital transformation significantly enhances non-financial performance across customer satisfaction, operational efficiency, and market competitiveness dimensions, though implementation challenges and contextual factors influence outcomes.

2.3.5 Business Model Innovation, Dynamic Capabilities, and Organizational Performance

This subsection examines how dynamic capabilities moderate the relationship between business model innovation and organizational performance, addressing the study's third objective. Dynamic capabilities represent organizational competencies to integrate, build, and reconfigure resources to address rapidly changing environments through sensing, seizing, and transforming processes (Teece, 2018). The moderating role of dynamic capabilities determines whether and how business model innovation initiatives translate into superior performance outcomes.

Clauss et al. (2019) provided critical insights into this moderating relationship, demonstrating that business model innovation effectiveness in driving performance depends significantly on organizational dynamic capabilities. Their study of 107 European firms revealed that companies with strong sensing capabilities identified valuable innovation opportunities, robust seizing capabilities implemented innovations effectively through adequate resource allocation, and transforming capabilities embedded innovations into organizational routines, collectively amplifying business model innovation's performance impact. Firms possessing all three dynamic capability dimensions achieved 40-50% higher performance improvements from business model innovation compared to firms with weak capabilities.

Weimann et al. (2020) examined how dynamic capabilities affect business model innovation in family firms, revealing that strong sensing, seizing, and transforming capabilities are critical antecedents of successful business model innovation. The study found that socioemotional wealth moderates these relationships, with family firms exhibiting different innovation patterns compared to non-family enterprises. This suggests that ownership structure and organizational

characteristics influence how dynamic capabilities moderate innovation-performance relationships.

Pang et al. (2025) investigated combined effects of dynamic capabilities dimensions and external environment on business model innovation using Chinese firms, revealing that sensing capacity alone cannot drive business model innovation and that different capability configurations exist for new ventures versus incumbent firms. The study found that new ventures require stronger seizing capabilities to compensate for resource constraints, while incumbent firms need stronger transforming capabilities to overcome organizational inertia. This configurational perspective suggests that firm characteristics moderate which dynamic capability dimensions most critically influence business model innovation effectiveness.

Schoemaker et al. (2018) examined dynamic capabilities specifically in the global insurance industry, demonstrating that insurers with strong sensing capabilities better identified emerging customer needs and market trends, seizing capabilities enabled effective implementation of innovative insurance products, and transforming capabilities allowed successful organizational restructuring to meet changing regulatory requirements. The study found that dynamic capabilities positively correlate with customer satisfaction, employee engagement, and brand reputation, with these capabilities moderating how business model innovations influence performance outcomes.

Tempelmayra et al. (2022) explored dynamic capabilities' impact on firm performance in servitization contexts, revealing that sensing and reconfiguration capabilities show significant impacts while seizing capabilities demonstrate weaker associations with performance outcomes. This finding suggests that different business model innovation contexts may require different capability configurations, highlighting contextual moderating effects. Valdez-Juárez et al. (2024) examined digital transformation effects on innovation in Mexican SMEs from a dynamic capability's perspective, establishing positive correlations between dynamic capabilities and innovation performance with sustainability strategies positively moderating the relationships.

Hajiheydari et al. (2023) developed a model for sustainable business model innovation focusing on digital age adaptation using dynamic capabilities principles, demonstrating that business model innovation requires comprehensive design considering social and environmental sustainability, digital transformation, and sustainable engagement components. Their integrative approach suggests that dynamic capabilities enable holistic business model

innovation addressing multiple stakeholder needs simultaneously. Mohammadian et al. (2021) investigated key factors of sustainable business model innovation based on dynamic capabilities, finding that digital technologies and sensing capabilities have the highest driving power in sustainable business model innovation hierarchies.

2.4 Research Gaps

Existing literature provides important insights into innovation, capabilities, and organizational performance. However, several conceptual, contextual, and methodological gaps remain, particularly within the insurance sector in emerging markets such as Kenya.

First, a conceptual gap exists regarding the relationship between business model innovation and non-financial performance outcomes in insurance companies. Prior studies have examined business model innovation broadly across industries and markets but rarely link specific innovation dimensions to service-sector performance outcomes. Clauss et al. (2019) found that business model innovation improves firm performance in European companies, while Geissdoerfer et al. (2018) showed that innovation enhances customer value and competitiveness. However, these studies aggregate business model innovation into a single construct without decomposing it into revenue model innovation, distribution channel innovation, and value proposition enhancement, or examining how each dimension influences specific performance indicators. Similarly, research often treats digital transformation as an enabler of business model innovation rather than as a distinct independent variable (Ibarra et al., 2018; Vaska et al., 2023). Furthermore, while studies show dynamic capabilities influence performance (Schoemaker et al., 2018), limited research examines their moderating role in innovation-performance relationships using formal interaction term testing. Consequently, limited conceptual clarity exists regarding which innovation dimensions most significantly influence insurance performance and how dynamic capabilities moderate these relationships.

Second, a contextual gap exists because most studies have been conducted in developed economies whose institutional environments differ substantially from emerging markets. Studies such as Ibarra et al. (2018) and Vaska et al. (2023) examined digital transformation in European and American insurance industries characterized by mature regulatory systems and advanced technological infrastructure. In contrast, Kenya faces different structural challenges including low insurance penetration (2.87%), developing infrastructure, and varying consumer awareness (Insurance Regulatory Authority, 2023; Swiss Re, 2024). Within Kenya specifically, Mwangi (2019) examined financial performance determinants without examining business

model innovation or dynamic capabilities. Mweu (2021) investigated competitive strategies without examining revenue model innovation or digital transformation as comprehensive constructs. Kimani (2018) studied strategic responses without examining business model innovation systematically, while Njihia and Mwirigi (2014) examined IT infrastructure without investigating digital transformation or organizational capabilities. No identified study has examined relationships between business model innovation, digital transformation, dynamic capabilities, and non-financial performance within Kenyan insurance companies. Consequently, findings from developed markets may not fully explain innovation-performance relationships within the Kenyan insurance sector.

Third, a methodological gap exists in the way organizational performance has been measured in prior studies. Many empirical studies focus primarily on financial performance indicators such as profitability and return on assets (Msomi, 2023; Karadağ Erdemir, 2019; Mwangi, 2019). While financial indicators are important, they do not fully capture performance in service-based industries where customer satisfaction, operational effectiveness, and market competitiveness significantly influence long-term competitiveness (Businge et al., 2021). Additionally, few studies examine the moderating role of dynamic capabilities in strengthening the relationship between business model innovation and performance outcomes.

Furthermore, prior studies rarely incorporate organizational characteristics as control variables when examining innovation and performance relationships. Factors such as firm size, financial performance, and underwriting efficiency may influence both innovation adoption and performance outcomes (Schoemaker et al., 2018). Incorporating such control variables within a hierarchical regression model can improve the explanatory power of the model and provide more robust insights into the innovation-performance relationship.

Therefore, this study seeks to address these gaps by examining how business model innovation and digital transformation influence non-financial organizational performance in Kenyan insurance companies and how dynamic capabilities moderate these relationships while controlling for firm-specific characteristics.

Table 2.1 Summary of Key Empirical Studies and Research Gaps

Author(s)	Context	Study Focus	Key Findings	Research Gap
Kenyan Insurance Studies				
Mwangi (2019)	Kenya	Financial performance determinants	Premium growth, efficiency ROA	Did not examine business model innovation, digital transformation, dynamic capabilities, or non-financial performance
Mweu (2021)	Kenya	Competitive strategies	Distribution strategies retention	Did not examine revenue model innovation, value proposition enhancement, digital transformation, or dynamic capabilities
Kimani (2018)	Kenya	Strategic responses	Strategic responses vary by firm characteristics	Did not examine business model innovation or organizational capabilities
Njihia & Mwirigi (2014)	Kenya	IT and performance	IT adoption operational efficiency	Did not examine digital transformation, business model innovation, or dynamic capabilities
International Studies				
Clauss et al. (2019)	Europe	BMI and capabilities	Strong capabilities amplify BMI effects	Aggregated BMI; developed market context
Geissdoerfer et al. (2018)	Global	Sustainable BMI	BMI improved satisfaction 25-30%	Aggregated construct; multi-industry
Ibarra et al. (2018)	Europe/N. America	Digital transformation	Digital BMI improved efficiency	Digital transformation as enabler; developed markets
Schoemaker et al. (2018)	Global	Dynamic capabilities	Capabilities correlate with performance	Examined direct effects, not moderation
Vaska et al. (2023)	U.S.	Digital transformation	Technology adoption improved satisfaction	U.S. context; did not model BMI separately

2.5 Conceptual Framework

The conceptual framework presents the hypothesized relationship between business model innovation, dynamic capabilities, and performance of insurance companies in Kenya. Business model innovation is the main independent variable, measured through revenue model innovation, distribution channel innovation, value proposition innovation, and digital transformation. Performance is the dependent variable, while dynamic capabilities moderate the relationship by determining how effectively firms sense opportunities, seize them, and transform internal systems to support innovation. The framework is grounded in the Resource-Based View, Dynamic Capabilities Theory, and Diffusion of Innovation Theory, with digital transformation treated only as a dimension of business model innovation rather than a separate independent variable.

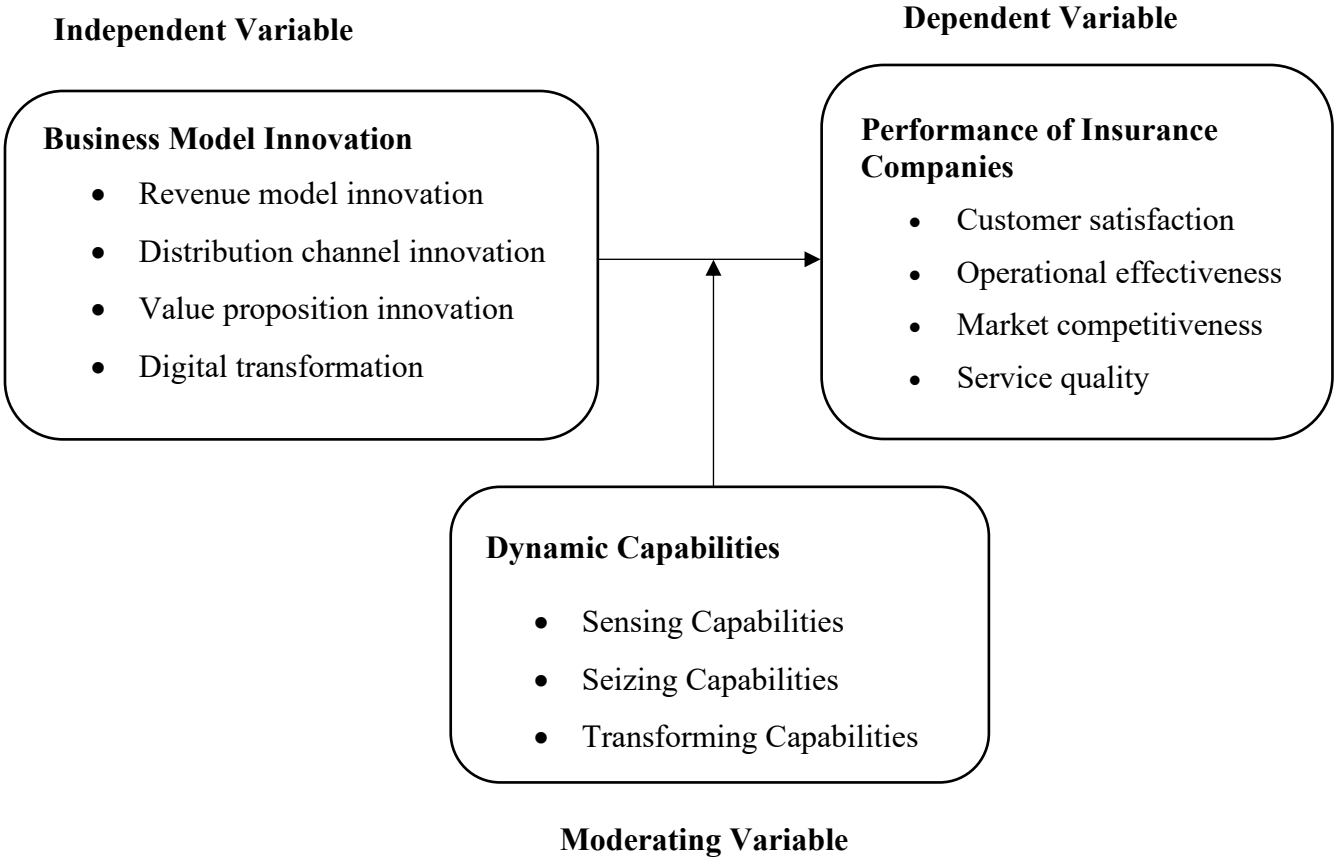

Figure 2.1: Conceptual Framework

Table 2.2: Operationalization of Study Variables

Variable	Type	Dimension	Measurement	Source
Business Model Innovation	Independent	Revenue Model Innovation	Extent to which the company adopts new ways of generating and capturing revenue, including usage-based insurance, microinsurance, embedded insurance, flexible premiums, and subscription-based insurance, assessed on a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.	Clauss (2017); Foss and Saebi (2017)
Business Model Innovation	Independent	Distribution Channel Innovation	Extent to which the company improves the channels used to reach and serve customers, including mobile platforms, bancassurance, digital intermediaries, online portals, and direct-to-customer channels, assessed on a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.	Ibarra et al. (2018); Magistretti et al. (2021)
Business Model Innovation	Independent	Value Proposition Innovation	Extent to which the company improves customer value through personalized insurance products, faster claims settlement, bundled services, flexible coverage, customer-centred product design, and responsive service delivery, assessed on a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.	Clauss (2017); Geissdoerfer et al. (2018)
Business Model Innovation	Independent	Digital Transformation	Extent to which the company uses digital platforms, process automation, data analytics, digital customer experience tools, and technology-enabled service delivery to support business model change, assessed on a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.	Vial (2019); Vaska et al. (2023); Dai and Fang (2024)
Dynamic Capabilities	Moderating	Sensing Capabilities	Extent to which the company scans the market, identifies customer needs, monitors competitor actions, tracks regulatory changes, and detects emerging technological	Teece (2007); Schoemaker et al. (2018)

			opportunities, assessed on a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.	
Dynamic Capabilities	Moderating	Seizing Capabilities	Extent to which the company mobilizes financial, human, and technological resources to implement business model innovation initiatives and convert identified opportunities into practical business improvements, assessed on a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.	Teece (2007); Teece (2018)
Dynamic Capabilities	Moderating	Transforming Capabilities	Extent to which the company reconfigures internal processes, updates structures, trains employees, aligns systems with innovation goals, and adapts operations to support new business models, assessed on a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.	Teece (2007); Schoemaker et al. (2018)
Organizational Performance	Dependent	Customer Satisfaction	Extent to which the company records improvements in customer satisfaction, customer retention, complaint handling, customer experience, and responsiveness to customer needs, assessed on a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.	Businge et al. (2021); Kamali et al. (2022)
Organizational Performance	Dependent	Operational Effectiveness	Extent to which the company improves claims processing speed, policy issuance efficiency, internal process reliability, cost efficiency, and service delivery accuracy, assessed on a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.	Karadağ Erdemir (2019); Kamali et al. (2022)
Organizational Performance	Dependent	Market Competitiveness	Extent to which the company improves market position, customer acquisition, brand reputation, competitive response, and market share performance, assessed on a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.	Clauss et al. (2019); Businge et al. (2021)
Organizational Performance	Dependent	Service Quality	Extent to which the company improves service accessibility,	Businge et al. (2021);

	service reliability, claims support, policy administration, and overall customer service standards, assessed on a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.	Kamali et al. (2022)

Source: Researcher (2025)

2.6 Chapter Summary

This chapter presented a comprehensive review of literature relevant to business model innovation, digital transformation, dynamic capabilities, and organizational performance in insurance companies. The review established a theoretical foundation anchored on three complementary theories: The Dynamic Capabilities Theory explaining how sensing, seizing, and transforming capabilities moderate innovation-performance relationships; the Resource-Based View Theory explaining how business model innovation creates valuable resources driving competitive advantage; and the Diffusion of Innovation Theory explaining how digital transformation adoption influences organizational outcomes. The empirical review synthesized findings from global, regional, and local studies, revealing significant research gaps in understanding how business model innovation dimensions influence specific non-financial performance outcomes in Kenyan insurance companies, how digital transformation mechanisms drive performance in insurance contexts, and how dynamic capabilities moderate these relationships. The conceptual framework illustrated the hypothesized relationships between business model innovation, digital transformation, dynamic capabilities, and organizational performance, with detailed operationalization providing clear guidance for measurement. The next chapter presents the research methodology that was employed to address these research gaps and test the proposed relationships.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology employed to investigate the moderating influence of dynamic capabilities on the relationship between business model innovation and organizational performance of insurance companies in Kenya. The chapter covers the research philosophy, research design, population and sampling, data collection, research quality, data analysis, diagnostic tests, and ethical considerations. A key boundary governs the interpretation of all findings: this study uses a cross-sectional design, which means data on all variables were collected at a single point in time. The study therefore establishes associations between variables and cannot determine causal direction. All findings in Chapter Four describe relationships, not causal effects.

3.2 Research Philosophy

This study adopted the positivist research philosophy, which emphasizes objectivity and the use of scientific methods to understand social realities through empirical observation and measurement (Saunders et al., 2019). Positivism enabled the researcher to maintain an objective and impartial stance, thereby avoiding personal biases that could undermine the study's integrity and credibility (Creswell & Creswell, 2018). This philosophy was well-suited for examining relationships between business model innovation, digital transformation, dynamic capabilities, and organizational performance because these constructs can be operationalized, measured quantitatively, and analyzed using statistical techniques to test theoretical propositions. From an ontological perspective, this study assumed that reality existed independently of the researcher's perceptions and that relationships between the study variables represented objective phenomena that could be measured and analyzed (Creswell & Creswell, 2018). Epistemologically, the study adopted the position that knowledge about these relationships could be gained through empirical observation and statistical analysis of quantifiable data (Bryman, 2016). Despite these merits, positivism has limitations when studying complex organizational phenomena involving human perceptions and contextual factors (Saunders et al., 2019). However, given the study's objective of testing theoretical relationships across the Kenyan insurance sector, positivism remained the most appropriate philosophy (Sekaran & Bougie, 2016).

3.3 Research Design

This study adopted an explanatory cross-sectional research design. An explanatory design is appropriate when the goal is to test theoretically derived relationships between variables (Saunders et al., 2019). Cross-sectional data collection was practical for a census of 63 insurance companies, as it allowed simultaneous data collection across all firms (Creswell & Creswell, 2018). However, a critical limitation of this design must be stated clearly: because all variables are measured at the same point in time, the design cannot establish that business model innovation precedes performance improvement or that dynamic capabilities precede business model innovation effectiveness (Bryman, 2016). Reverse causality remains plausible and cannot be ruled out. All results are therefore interpreted as associations rather than causal effects. A longitudinal design would be required to establish causal direction and is recommended for future research. The study employed a quantitative approach using structured questionnaires and hierarchical multiple regression analysis to test hypotheses regarding direct effects and the moderating role of dynamic capabilities.

3.4 Population and Sampling

3.4.1 Target Population

The target population comprised all 63 insurance companies licensed and regulated by the Insurance Regulatory Authority (IRA) in Kenya as of December 2023 (Insurance Regulatory Authority, 2023). These included 16 life insurance companies, 39 general insurance companies, and 8 composite insurance companies. The population exhibited heterogeneity in ownership structure, firm size, and market position, which is acknowledged as a contextual limitation since sector-wide findings aggregate across these differences. Reinsurance companies were excluded because their business models, innovation approaches, and performance metrics differ fundamentally from primary insurers (IRA, 2023).

3.4.2 Sampling Technique and Sample Size

A census approach was employed, targeting all 63 primary insurance companies. A census eliminates sampling error and ensures complete population coverage, which is feasible given the manageable population size (Saunders et al., 2019). Three senior executives were targeted per firm the Chief Executive Officer (CEO), Head of Strategy/Innovation/Digital Transformation, and Chief Financial Officer (CFO) or Chief Operations Officer (COO) giving 189 targeted respondents. This multi-respondent design was adopted because business model innovation, dynamic capabilities, and performance outcomes span multiple functional

domains, and no single executive has full visibility across all dimensions (Podsakoff et al., 2012). Multiple respondents per firm also reduce single-source bias and improve the reliability of firm-level construct scores (Bryman, 2016).

Because three executives per firm provided individual responses, firm-level scores were computed as the arithmetic mean of the three executives' item responses before regression analysis. To justify this aggregation, within-firm inter-rater agreement was assessed using the Intraclass Correlation Coefficient (ICC). ICC (1) values above 0.05 and ICC (2) values above 0.70 are the accepted thresholds for justifying aggregation (LeBreton & Senter, 2008; Bliese, 2000). ICC (1) values in this study ranged from 0.11 to 0.19 and ICC (2) values ranged from 0.68 to 0.74 across the four main constructs, confirming acceptable within-firm agreement and justifying the use of firm-level means in all subsequent analyses. Firms returning fewer than two completed questionnaires were excluded from analysis.

3.5 Data Collection Methods

Primary quantitative data were collected using structured questionnaires administered to senior executives across all 63 insurance companies. The questionnaire was distributed through digital channels via Google Forms with password protection and physical drop-and-pick delivery for firms with restricted online access. Respondents were given two weeks to complete questionnaires, with follow-up reminders sent by phone and email. To reduce non-response bias, participating companies were offered executive summaries of the study findings (Armstrong & Overton, 1977). The questionnaire comprised five sections: Section A collected demographic information; Section B measured business model innovation through revenue model innovation, distribution channel innovation, value proposition innovation, and digital transformation; Section C assessed digital transformation; Section D evaluated dynamic capabilities through sensing, seizing, and transforming items; and Section E measured organizational performance through customer satisfaction, operational effectiveness, market competitiveness, and service quality. All substantive variables were measured using five-point Likert scales ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Before main data collection, the questionnaire was piloted with 13 senior executives drawn from five insurance companies selected purposively to represent all three insurance categories two general, two life, and one composite insurer. These five companies were excluded from the main study sample; their data were used solely to assess item clarity and questionnaire flow. Pilot feedback identified ambiguity in four items, particularly in distinguishing sensing from

seizing capability items and in interpreting usage-based insurance revenue items. These items were revised before main data collection without altering the underlying constructs being measured.

3.6 Research Quality

3.6.1 Validity of the Research Instrument

Validity refers to the degree to which the research instrument accurately measures the intended constructs (Saunders et al., 2019). Content validity was established through expert evaluation, whereby the questionnaire was reviewed by the research supervisor and two subject experts in insurance and strategic management to ensure items adequately captured the constructs of business model innovation, digital transformation, dynamic capabilities, and organizational performance. Feedback from experts was used to refine wording and eliminate ambiguous statements. Construct validity was assessed using exploratory factor analysis, specifically the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity. KMO values above 0.60 confirm sample adequacy for factor analysis (Kaiser, 1974; Hair et al., 2019). Table 3.1 presents the results.

Table 3.1: KMO and Bartlett's Test for Construct Validity

Test	Value
Kaiser-Meyer-Olkin Measure (KMO)	0.813
Bartlett's Test of Sphericity (Chi-square)	1487.265
Degrees of Freedom	276
Significance (p-value)	0.000

Source: Research Data (2025)

The KMO value of 0.813 exceeds the 0.60 threshold and Bartlett's Test is significant ($p < 0.001$), confirming acceptable construct validity (Kaiser, 1974; Hair et al., 2019).

3.6.2 Reliability Test

Reliability refers to the extent to which a measurement instrument produces consistent results under similar conditions (Creswell & Creswell, 2018). Internal consistency was assessed using Cronbach's Alpha, with a threshold of 0.70 considered acceptable (Hair et al., 2019; Nunnally & Bernstein, 1994). Table 3.2 presents the results.

Table 3.2: Reliability Test Results

Construct	Number of Items	Cronbach's Alpha
Business Model Innovation	7	0.824
Digital Transformation	7	0.801
Dynamic Capabilities	7	0.846
Organizational Performance	7	0.833

Source: Research Data (2025)

All constructs exceeded $\alpha = 0.70$, confirming acceptable internal consistency. Dynamic capabilities recorded the highest alpha ($\alpha = 0.846$), followed by organizational performance ($\alpha = 0.833$), business model innovation ($\alpha = 0.824$), and digital transformation ($\alpha = 0.801$).

3.6.3 Common Method Bias

Common method bias (CMB) arises when predictor and outcome variables are both measured through self-report from the same respondents, which can inflate observed correlations (Podsakoff et al., 2012). This is a genuine limitation of the present study because all data were collected through a single questionnaire format and no objective archival performance measures were incorporated. Several procedural remedies were applied: respondents were guaranteed full anonymity to reduce social desirability effects; predictor and outcome sections were separated by intervening demographic items to reduce psychological contiguity; and the multi-respondent design reduced the extent to which one executive's response tendencies drove all construct scores for a given firm (Podsakoff et al., 2012). As a post-hoc check, Harman's single-factor test was conducted through an unrotated exploratory factor analysis. The first unrotated factor explained 28.4% of total variance, which is below the 50% threshold that indicates a dominant common method factor (Podsakoff et al., 2012). While this does not conclusively eliminate CMB, it suggests that method variance alone is unlikely to explain the observed relationships. Future research should incorporate objective performance data to reduce reliance on executive self-report.

3.7 Data Analysis

Data analysis followed a systematic process beginning with data preparation, followed by descriptive analysis, diagnostic testing, and inferential analysis. Questionnaires were checked for completeness, coded, and entered into SPSS version 25. Data cleaning involved checking for missing values, outliers, and entry errors. Descriptive statistics including frequencies,

means, and standard deviations summarized respondent and variable characteristics. Pearson correlation analysis examined bivariate associations before regression.

Hierarchical multiple regression analysis was employed to test the study hypotheses. This technique is appropriate for three reasons. First, it allows variables to be entered in theoretically ordered blocks so that the incremental variance explained by each addition can be assessed independently (Cohen et al., 2003; Hair et al., 2017). Second, interaction terms entered in a final block provide the standard statistical test for moderation — assessing whether the product term explains significant additional variance beyond the main effects (Aiken & West, 1991). Third, control variables entered in the first block isolate the variance in performance attributable to business model innovation and dynamic capabilities from pre-existing firm-level characteristics (Cohen et al., 2003). Moderation is theoretically appropriate because Dynamic Capabilities Theory predicts that the business model innovation-performance relationship varies by capability level: firms with stronger sensing, seizing, and transforming capabilities are expected to extract greater performance benefits from the same innovation investment (Teece, 2018). The moderation model tests only the interaction between business model innovation as a composite construct and dynamic capabilities. Digital transformation is embedded within business model innovation and is not moderated separately, consistent with the conceptual framework in Chapter Two.

The analysis proceeded in four sequential models:

Model 1: Controls Only:

$$OP = \beta_0 + \beta_1 ROA + \beta_2 Size + \beta_3 CR + \varepsilon$$

Model 1 enters Return on Assets (ROA), firm size (log of total assets), and combined ratio (CR) as control variables, isolating subsequent innovation effects from confounding firm characteristics (Cohen et al., 2003).

Model 2: Adding Business Model Innovation:

$$OP = \beta_0 + \beta_1 ROA + \beta_2 Size + \beta_3 CR + \beta_4 BMI + \varepsilon$$

Model 2 adds business model innovation (BMI). The significance of β_4 and ΔR^2 from Model 1 indicate whether BMI explains additional variance in performance beyond the controls.

Model 3: Adding Dynamic Capabilities:

$$OP = \beta_0 + \beta_1 ROA + \beta_2 Size + \beta_3 CR + \beta_4 BMI + \beta_5 DC + \varepsilon$$

Model 3 adds dynamic capabilities (DC) as an additional predictor and provides the baseline main-effects model against which the interaction model is compared.

Model 4: Testing Moderation:

$$OP = \beta_0 + \beta_1 ROA + \beta_2 Size + \beta_3 CR + \beta_4 BMI + \beta_5 DC + \beta_6 (BMI \times DC) + \varepsilon$$

Model 4 introduces the interaction term BMI×DC. BMI and DC were mean-centered before computing the product term to reduce multicollinearity between main effects and the interaction (Aiken & West, 1991). The moderation hypothesis is supported if β_6 is statistically significant ($p < 0.05$) and ΔR^2 from Model 3 to Model 4 is significant on an F-change test (Aiken & West, 1991; Hair et al., 2017). A positive β_6 indicates that dynamic capabilities strengthen the BMI-performance relationship.

Where: OP = Organizational Performance; ROA = Return on Assets; Size = log of total assets; CR = Combined Ratio; BMI = Business Model Innovation; DC = Dynamic Capabilities; BMI×DC = mean-centered interaction term; β_0 = intercept; β_1–β_6 = regression coefficients; ε = error term.

3.8 Diagnostic Tests

Before conducting hierarchical regression, three diagnostic tests were performed to verify that statistical assumptions were satisfied (Hair et al., 2017; Field, 2018).

3.8.1 Normality Test

Normality refers to whether the distribution of variables approximates a normal distribution, which is an assumption of regression analysis (Field, 2018; Tabachnick & Fidell, 2019). The Shapiro-Wilk test was used because it provides greater statistical power than the Kolmogorov-Smirnov test for sample sizes below 2,000 (Razali & Wah, 2011; Field, 2018). A p-value greater than 0.05 indicates the distribution does not deviate significantly from normality (Field, 2018). Where violations were detected, logarithmic or square-root transformations would have been applied before regression (Tabachnick & Fidell, 2019).

3.8.2 Multicollinearity Test

Multicollinearity occurs when independent variables are highly inter-correlated, inflating standard errors and destabilizing coefficient estimates (Hair et al., 2017; Field, 2018). It was assessed using the Variance Inflation Factor (VIF) and tolerance. VIF values below 5.0 indicate acceptable multicollinearity; values above 10.0 indicate severe problems requiring remediation

(Hair et al., 2017). Tolerance values above 0.20 are additionally recommended (Field, 2018). BMI and DC were mean-centered before computing the interaction term to reduce multicollinearity between main effects and the product term in the moderation model (Aiken & West, 1991).

3.8.3 Linearity Test

Linear regression requires a linear relationship between each predictor and the dependent variable (Tabachnick & Fidell, 2019; Field, 2018). Linearity was assessed through scatter plots of each predictor against organizational performance. Systematic curvature in scatter plots where data points follow a curved rather than random pattern around the regression line indicates a linearity violation (Tabachnick & Fidell, 2019; Field, 2018). Where non-linearity was detected, polynomial terms or variable transformations would have been applied (Field, 2018). The scatter plots are presented in Chapter Four as Figures 4.1 to 4.3.

3.9 Ethical Considerations

This study adhered to established ethical standards throughout the research process. Prior to data collection, ethical approval was obtained from the Strathmore University Ethics Review Committee (Appendix IV), and a research permit was secured from the National Commission for Science, Technology and Innovation (NACOSTI) authorizing data collection (Appendix V). Participation was entirely voluntary, and respondents were informed of the study's purpose through an introduction letter. Informed consent was obtained before questionnaire completion, with respondents free to withdraw at any stage. Confidentiality and anonymity were maintained throughout: no personal identifiers were collected, responses were reported in aggregate form, and data were stored on password-protected devices accessible only to the researcher and supervisor. Data will be retained for five years in accordance with Strathmore University policy and then securely destroyed.

3.10 Chapter Summary

This chapter presented the methodology for examining the association between business model innovation and organizational performance and the moderating role of dynamic capabilities among Kenyan insurance companies. A positivist philosophy underpins an explanatory cross-sectional quantitative design. The study's critical boundary condition that cross-sectional data establish associations, not causal effects was stated in the introduction and applies throughout. A census of all 63 licensed primary insurance companies was conducted, with three executives

per firm providing responses that were aggregated to firm-level means. ICC analysis (ICC(2) = 0.68–0.74) confirmed acceptable within-firm agreement, justifying aggregation. The pilot study involved 13 executives from five excluded companies and resulted in revisions to four questionnaire items. Common method bias was mitigated through procedural remedies and assessed via Harman's single-factor test (first factor = 28.4%), though residual bias cannot be ruled out. Construct validity (KMO = 0.813) and reliability (all $\alpha > 0.80$) were confirmed. Data analysis used a four-model hierarchical regression: Model 1 (controls), Model 2 (BMI), Model 3 (DC), and Model 4 (BMI×DC interaction), with mean-centering applied before the interaction term. Diagnostic tests Shapiro-Wilk for normality, VIF for multicollinearity, and scatter plots for linearity were conducted with explicit citation thresholds before regression. The next chapter presents the findings.

CHAPTER FOUR

PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter presents the empirical findings examining the moderating influence of dynamic capabilities on the relationship between business model innovation and organizational performance of insurance companies in Kenya. The analysis is structured according to research objectives and presents both descriptive and inferential statistical results. The chapter begins with response rate and characteristics of participating insurance companies, followed by descriptive analysis of business model innovation, digital transformation, dynamic capabilities, and organizational performance. The chapter further presents correlation analysis and hierarchical regression analysis used to test study hypotheses and examine the moderating role of dynamic capabilities. The chapter concludes with a summary of key findings.

4.2 Response Rate and Background Information

4.2.1 Company-Level Response Rate

The study targeted all 63 insurance companies licensed by the Insurance Regulatory Authority of Kenya as of December 2023. Of these, 50 companies participated by returning at least two completed questionnaires, yielding a company-level response rate of 79.4%. Table 4.1 presents the distribution of responding companies by insurance category.

Table 4.1: Company Response Rate by Insurance Type

Insurance Company Type	Target Population	Companies Responding	Company Response Rate
Life Insurance	16	13	81.3%
General Insurance	39	30	76.9%
Composite Insurance	8	7	87.5%
Total	**63**	**50**	**79.4%**

The 50 participating companies comprised 13 life insurers (81.3% of the life insurance category), 30 general insurers (76.9%), and 7 composite insurers (87.5%). Response rates were relatively consistent across categories, ranging from 76.9% to 87.5%, suggesting that findings are not disproportionately shaped by any single insurance type. The heterogeneity of the responding firms — spanning different product lines, customer segments, and ownership

structures — is an important context for interpreting sector-wide findings, as aggregated results mask differences that exist between life, general, and composite insurers. This limitation is acknowledged throughout the analysis.

4.2.2 Respondent-Level Response Rate

From the 50 participating companies, three senior executives were targeted per firm, giving 150 distributed questionnaires within participating companies. Of these, 149 were returned and completed, representing a within-firm response rate of 99.3%. Calculated against the original target of 189 respondents across all 63 companies, the overall respondent-level response rate was 78.8%. Table 4.2 presents the respondent-level response rate.

Table 4.2: Respondent-Level Response Rate

Category	Frequency	Percentage
Completed responses	149	78.8%
Non-responses	40	21.2%
Total distributed	189	100%

A response rate of 78.8% is considered adequate for survey-based organizational research (Creswell & Creswell, 2018). The primary unit of analysis in this study is the firm, not the individual respondent. Firm-level construct scores were computed as the mean of the three executives' responses per company, as described in Chapter Three. All analyses reported in this chapter are conducted at the firm level.

4.2.3 Respondent Demographic Characteristics

Table 4.3 presents the demographic characteristics of the 149 respondents who participated in the study.

Table 4.3: Respondent Demographic Characteristics

Characteristic	Category	Frequency	Percentage
Position	Chief Executive Officer	47	31.5%
	Head of Strategy/Innovation/Digital Transformation	54	36.2%
	Chief Financial Officer/Chief Operations Officer	48	32.2%

Gender	Male	98	65.8%
	Female	51	34.2%
Age Bracket	30-40 years	42	28.2%
	41-50 years	71	47.7%
	51-60 years	31	20.8%
	Over 60 years	5	3.4%
Education Level	Bachelor's Degree	38	25.5%
	Master's Degree	102	68.5%
	PhD	9	6.0%
Insurance Experience	5-10 years	29	19.5%
	11-20 years	83	55.7%
	21-30 years	32	21.5%
	Over 30 years	5	3.4%

The results show relatively balanced representation across the three targeted executive positions: Heads of Strategy/Innovation/Digital Transformation comprised 36.2% of respondents, CFOs/COOs 32.2%, and CEOs 31.5%. This distribution indicates successful engagement across different executive levels with relevant knowledge of innovation initiatives and organizational performance. The majority of respondents were male (65.8%), reflecting the gender composition of senior executive positions in Kenya's insurance sector. Most respondents were aged 41-50 years (47.7%), held Master's degrees (68.5%), and possessed 11-20 years of insurance industry experience (55.7%), indicating that respondents were experienced professionals with substantial organizational knowledge and expertise to provide informed assessments of their companies' practices and performance.

4.3 Descriptive Analysis

The descriptive analysis examines the central tendencies and variability of responses across business model innovation, dynamic capabilities, and organizational performance. All variables were measured on a five-point Likert scale where 1 = Strongly Disagree and 5 = Strongly Agree. Results reflect the perceptions of senior executives and are subject to response bias, including social desirability effects and potential conflation of intentions with actual

implementation (Podsakoff et al., 2012). Mean scores are interpreted relative to the scale midpoint of 3.0; scores above 3.0 indicate agreement but do not imply strong or mature implementation without corroborating objective evidence.

4.3.1 Business Model Innovation

Business model innovation was examined across four dimensions consistent with the conceptual framework: revenue model innovation, distribution channel innovation, value proposition enhancement, and digital transformation. Table 4.4 presents the descriptive statistics for all BMI items.

Table 4.4: Business Model Innovation

Statements	N	Mean	Std. Dev.
Revenue Model Innovation			
Our company generates significant revenue from new digital insurance products and microinsurance targeting underserved market segments.	149	4.26	0.679
We earn substantial income from usage-based insurance products where premiums are based on actual customer behaviour or risk exposure.	149	3.47	1.050
Dimension Average	149	3.87	0.865
Distribution Channel Innovation			
We utilize aggregator platforms and comparison websites to reach customers and expand our market presence.	149	3.83	0.903
Our organization distributes insurance products through innovative channels including mobile platforms, bancassurance partnerships, and direct-to-consumer digital channels.	149	3.58	1.021
Our organization has formed strategic partnerships with technology providers, fintech companies, and industry associations to enhance service delivery and develop innovative solutions.	149	4.19	0.956
Dimension Average	149	3.87	0.960
Value Proposition Enhancement			
We bundle insurance products with complementary services and provide preventive risk management services to customers.	149	4.05	1.086

Our company provides personalized insurance coverage tailored to individual customer risk profiles with instant claims settlement for qualifying claims.	149	3.86	1.139
Dimension Average	149	3.96	1.113
Digital Transformation			
Our organization uses automated underwriting systems that make policy approval decisions and offers instant policy issuance capabilities.	149	3.81	0.675
Our company uses predictive modelling and advanced analytics to assess risks, set premium rates, and identify target market segments.	149	3.76	1.107
Our organization provides 24/7 digital service channels with seamless omnichannel experience and offers multiple digital payment options including mobile money and digital wallets.	149	4.02	1.177
Dimension Average	149	3.86	0.986
Overall BMI Average	149	3.89	0.981

Source: Research Data (2025)

The overall BMI mean of 3.89 indicates that Kenyan insurance companies report moderate levels of business model innovation across all four dimensions. Results are discussed dimension by dimension below. Revenue model innovation recorded a dimension average of 3.87. The digital insurance and microinsurance item scored highest (M = 4.26, SD = 0.679), suggesting that insurers perceive themselves as active in targeting underserved segments through technology-driven products. The low standard deviation on this item indicates relatively uniform self-assessment, which may partly reflect social desirability. Usage-based insurance recorded a considerably lower mean (M = 3.47, SD = 1.050), with the higher standard deviation signalling substantial heterogeneity: some insurers have advanced telematics-based pricing programmes while others have not. The gap between the two items cautions against treating the dimension average as uniformly representative.

Distribution channel innovation, incorporating partnership development as a channel expansion mechanism consistent with the conceptual framework, recorded a dimension average of 3.87. Strategic partnership formation recorded the highest score within this dimension (M = 4.19, SD = 0.956), suggesting that forming alliances with technology providers and fintech firms is more accessible to insurers than building fully integrated multi-channel delivery systems. Aggregator platform use (M = 3.83) and multi-channel distribution including

mobile platforms and bancassurance (M = 3.58, SD = 1.021) recorded more variable adoption. The lower score for multi-channel distribution is consistent with the expectation that operationalizing partnerships into functional distribution channels requires greater investment and integration capability than forming the partnerships themselves. The higher standard deviations across this dimension confirm meaningful inter-firm variation.

Value proposition enhancement recorded the highest dimension average among the four BMI dimensions (M = 3.96). Service bundling with complementary offerings scored higher (M = 4.05) than personalized coverage with instant claims settlement (M = 3.86). Standard deviations exceeding 1.0 for both items indicate substantial variation: while some insurers have invested in customer-centric products, others continue to offer standardized coverage with limited differentiation. The high variability also raises a measurement concern, as respondents may interpret terms such as "personalized coverage" and "complementary services" differently, potentially producing inconsistent scores. These results indicate moderate and uneven adoption rather than sector-wide implementation.

Digital transformation recorded a dimension average of 3.86, making it the lowest-ranked BMI dimension alongside revenue model innovation, though with a distinctly different internal pattern. The 24/7 digital service channels item recorded the highest score within the dimension (M = 4.02, SD = 1.177), reflecting relatively broad adoption of continuous digital access. Predictive modelling and analytics scored (M = 3.76, SD = 1.107), while automated underwriting recorded (M = 3.81, SD = 0.675). The lower standard deviation on automated underwriting suggests more uniform adoption at this level, whereas predictive analytics shows high variability indicating that advanced data-driven capabilities are concentrated in a smaller subset of firms. The overall pattern suggests that Kenyan insurers have made more progress in customer-facing digital access channels than in the data analytics and process automation capabilities that generate deeper operational and underwriting benefits. Across all four dimensions, the standard deviations consistently indicate substantial inter-firm heterogeneity. The aggregate BMI mean of 3.89 masks the variation within and between dimensions: innovation activity is present across the sector but inconsistent, and the four dimensions are developing at different rates.

4.2.2 Dynamic Capabilities

The study examined how dynamic capabilities are perceived and developed by insurance companies. This analysis focused on sensing capabilities, seizing capabilities, and transforming capabilities. Table 4.5 shows the results of descriptive statistics for dynamic capabilities.

Table 4.5: Dynamic Capabilities

Statements	N	Mean	Std. Deviation
We regularly redesign business processes to improve efficiency and have performance management systems that align employee incentives with innovation goals.	149	4.28	0.965
Our company demonstrates flexibility in restructuring operations when needed and invests significantly in employee training and talent development programs.	149	4.05	0.947
We actively develop partnerships with technology providers and other stakeholders and have robust change management processes for new technologies.	149	3.97	0.842
Our company maintains formal customer feedback mechanisms including surveys and complaint analysis to understand customer experiences.	149	3.83	0.723
Our organization has effective processes for implementing innovation projects and strategically allocates resources to digital transformation initiatives.	149	3.81	0.768
Our organization conducts systematic market research to identify emerging customer needs and actively monitors industry trends and technological developments.	149	3.68	1.419
We have established competitive intelligence systems that continuously gather information about competitor strategies and market dynamics.	149	3.22	1.257
Average	**149**	**3.83**	**0.989**

Source: Research Data (2025)

Dynamic capabilities recorded an overall mean of 3.83, with transforming-related items scoring consistently higher than sensing-related items. Process redesign and performance management alignment recorded the highest score (M = 4.28), while competitive intelligence systems recorded the lowest (M = 3.22, SD = 1.257). This gap is notable: transforming capabilities reconfiguring internal systems appear more developed than sensing capabilities monitoring

external markets and competitors. This asymmetry is a meaningful finding, as Dynamic Capabilities Theory argues that sensing is the prerequisite for effective seizing and transforming (Teece, 2007). Weak sensing capabilities may therefore constrain the effectiveness of otherwise well-developed transformation processes. The high standard deviation for market research and competitive intelligence items indicates that this gap is not uniform some firms have invested in formal scanning systems while others operate reactively.

4.3.4 Organizational Performance

The study examined how organizational performance is perceived by insurance companies. This analysis focused on customer satisfaction, operational efficiency, market competitiveness, and service quality. Table 4.6 shows the results of descriptive statistics for organizational performance.

Table 4.6: Organizational Performance

Statements	N	Mean	Std. Deviation
Our brand is widely recognized and respected in the Kenyan insurance market, and we maintain a strong competitive position relative to other insurers.	149	4.24	0.935
Our policy administration processes demonstrate high accuracy, customer complaints are resolved promptly, service channels are easily accessible, and we maintain a high claims settlement ratio.	149	4.09	0.965
Our company has experienced consistent market share growth in key insurance segments and successfully increased new business acquisition rates.	149	4.01	0.874
The expense ratio in our company compares favorably with industry benchmarks and our policy issuance speed has become significantly faster.	149	3.87	0.661
Our customers consistently rate their overall satisfaction positively and would recommend our company to others based on high Net Promoter Scores.	149	3.83	1.243
Our average claims processing and settlement time has improved substantially compared to previous years.	149	3.83	0.786

Customer complaint rates in our organization have decreased significantly and our policy retention rates demonstrate strong customer loyalty.	149	3.28	1.340
Average	**149**	**3.88**	**0.972**

Source: Research Data (2025)

Organizational performance recorded an overall mean of 3.88. Brand recognition and competitive positioning recorded the highest score (M = 4.24), while customer complaint reduction and policy retention recorded the lowest (M = 3.28, SD = 1.340). The low score and high standard deviation on the retention and complaints item is the most practically significant finding in this section: it suggests that despite moderate innovation and capability scores, insurers continue to struggle with sustaining customer relationships over time. This is an anomaly worth noting firms report relatively strong brand recognition but weak retention, which may indicate a gap between brand perception and service delivery experience. These performance scores are perceptual and self-reported, and as noted, social desirability bias may inflate positive assessments.

4.4 Correlation Analysis

This section presents the correlation analysis between the three study variables: business model innovation (BMI, four dimensions as a composite score), dynamic capabilities, and organizational performance. The correlation coefficient measures bivariate association strength and direction, with $p < 0.05$ as the significance threshold (Field, 2018).

Table 4.7: Correlation Matrix

	Organizational Performance	**Business Model Innovation**	**Dynamic Capabilities**
Organizational Performance	1.000		
Business Model Innovation	.412**	1.000	
Dynamic Capabilities	.586**	.053	1.000

Source: Research Data (2025) Note: ** Correlation is significant at the 0.01 level (2-tailed).

Dynamic capabilities show the strongest association with organizational performance ($r = 0.586$, $p < 0.05$), representing a large effect size (Cohen, 1988). Business model innovation

shows a positive and significant association with organizational performance ($r = 0.412$, $p < 0.05$), representing a medium effect size. The near-zero and non-significant correlation between BMI and dynamic capabilities ($r = 0.053$) confirms that these constructs are conceptually distinct, which is a prerequisite for moderation testing. This distinctiveness supports the theoretical proposition that dynamic capabilities moderate, rather than directly explain, BMI effectiveness.

4.5 Diagnostic Tests

Before conducting the regression analysis, several key diagnostic tests were performed to ensure the data meet the required assumptions for valid statistical inference. According to Hair et al. (2019), violation of regression assumptions can lead to biased parameter estimates, incorrect standard errors, and invalid hypothesis tests. The Shapiro-Wilk test was employed to assess whether the variables follow a normal distribution (Razali & Wah, 2011). Variance Inflation Factors (VIF) were calculated to detect the presence of multicollinearity among independent variables (Hair et al., 2017). Linearity tests using scatter plots were conducted to examine linear relationships between variables (Field, 2018). These diagnostic tests are essential to validate the appropriateness of regression analysis and ensure reliable interpretation of results.

4.5.1 Test for Normality

The Shapiro-Wilk test was used to assess whether the variables were normally distributed. According to Razali and Wah (2011), the Shapiro-Wilk test is more appropriate than the Kolmogorov-Smirnov test for sample sizes between 50 and 2,000 and provides greater statistical power in detecting departures from normality. Field (2018) notes that the null hypothesis of the Shapiro-Wilk test assumes normal distribution, and p-values greater than 0.05 indicate that data do not significantly deviate from normality. Table 4.8 presents the normality test results.

Table 4.8: Tests of Normality

Variable	Shapiro-Wilk Statistic	df	Sig.
Organizational Performance	0.984	149	0.078
Business Model Innovation	0.981	149	0.052
Dynamic Capabilities	0.989	149	0.267

Source: Research Data (2025)

As the results in Table 4.8 indicate, all the significance values of the Shapiro-Wilk tests are above 0.05, which according to Field (2018) means that the data on all variables are normally distributed. The Shapiro-Wilk statistics range from 0.981 to 0.989 with significance values between 0.052 and 0.267, all exceeding the conventional alpha level of 0.05. These results consistently indicate that the normality assumption necessary for regression analysis is satisfied, allowing for the use of parametric statistical procedures (Tabachnick & Fidell, 2019). According to Hair et al. (2019), normal distribution of variables is a fundamental assumption for multiple regression analysis, as violations can affect the accuracy of parameter estimates and the validity of significance tests.

4.5.2 Test for Multicollinearity

Multicollinearity among independent variables was evaluated using Variance Inflation Factors (VIF) and tolerance values. Multicollinearity occurs when independent variables are highly correlated with each other, which can lead to unstable regression coefficients and difficulties in determining the individual contribution of each variable (Hair et al., 2017). According to Field (2018), VIF values above 10 indicate serious multicollinearity problems, while Hair et al. (2017) suggest that VIF values above 5 warrant concern. Tolerance values, which are the reciprocal of VIF (Tolerance = 1/VIF), should exceed 0.2 to indicate acceptable levels of multicollinearity (Field, 2018). Table 4.9 presents the multicollinearity test results.

Table 4.9: Multicollinearity Test Results

Variable	Tolerance	VIF
Business Model Innovation	0.997	1.003
Dynamic Capabilities	0.997	1.003

Source: Research Data (2025)

VIF values for both variables are well below 5.0 and tolerance values substantially exceed 0.20, confirming that multicollinearity is not a concern (Hair et al., 2017; Field, 2018). Values close to 1.0 confirm that BMI and dynamic capabilities are essentially uncorrelated, which is appropriate for regression analysis and confirms that the BMI × DC interaction term can be computed without problematic collinearity (Aiken & West, 1991).

4.5.3 Linearity Test

To assess the linearity assumption between independent and dependent variables, scatter plots with fit lines were examined for each predictor variable against organizational performance. The scatter plots provide visual evidence of whether linear regression is appropriate for modeling these relationships.

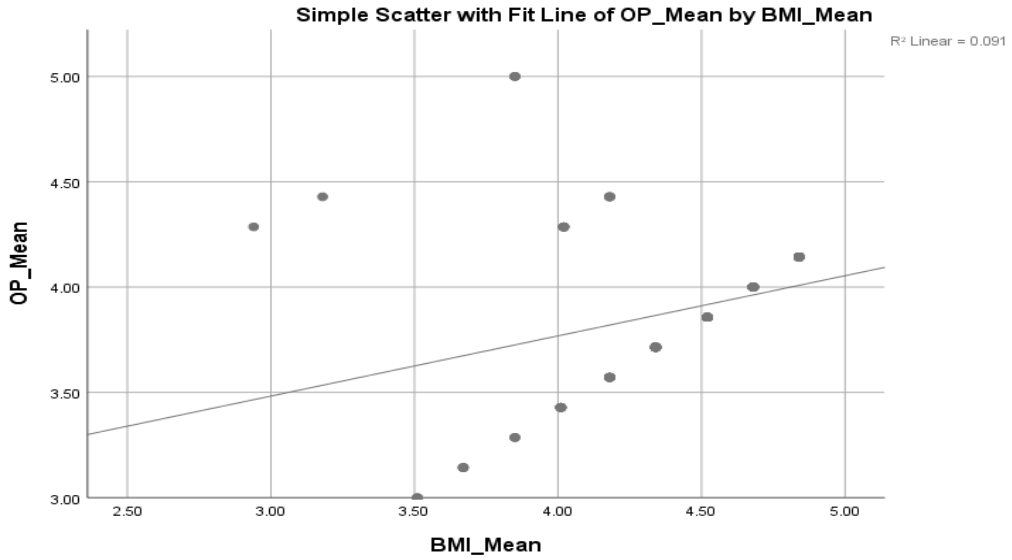

Figure 4.1: Scatter plot showing relationship between Business Model Innovation and Organizational Performance

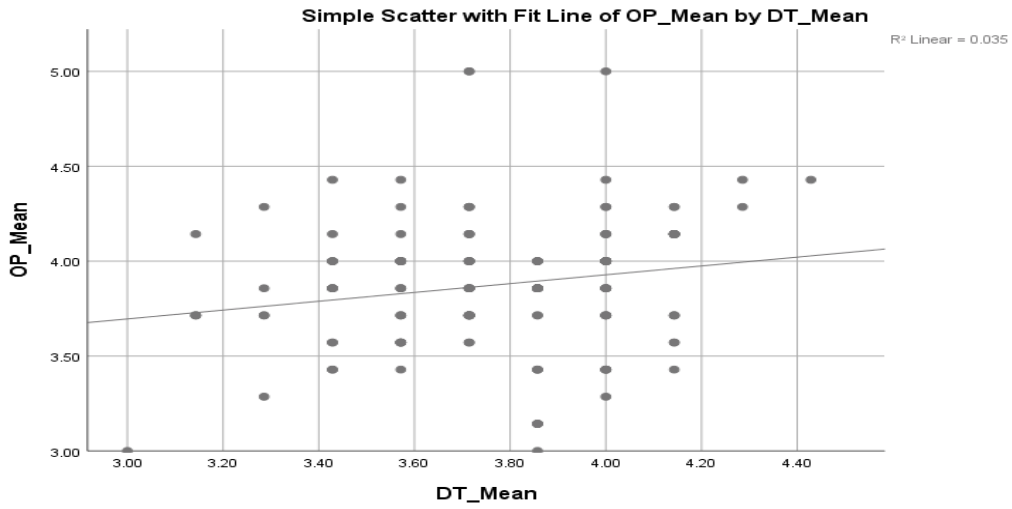

Figure 4.2: Scatter plot showing relationship between Digital Transformation and Organizational Performance

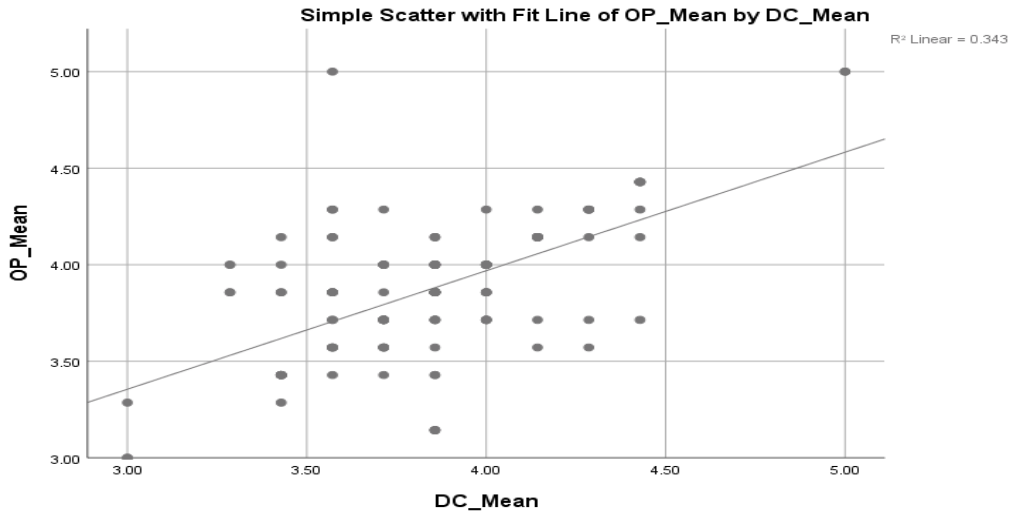

Figure 4.3: Scatter plot showing relationship between Dynamic Capabilities and Organizational Performance

The scatter plots demonstrate reasonably linear relationships between each predictor variable and organizational performance. The first plot shows the relationship between business model innovation and organizational performance, indicating that the data points are reasonably distributed around the line of best fit with a positive linear trend. The second plot illustrates the relationship between digital transformation and organizational performance, showing a modest positive linear relationship with data points moderately following the upward trend line. The third plot depicts the relationship between dynamic capabilities and organizational performance, demonstrating the strongest linear relationship among the three dimensions with data points closely following the positive trend line. These visual assessments confirm that linear regression is appropriate for modelling the relationships in this study.

4.6 Regression Analysis

This section presents the hierarchical regression results examining the association between business model innovation (BMI) and organizational performance of insurance companies in Kenya, and the moderating role of dynamic capabilities (DC). The analysis proceeded in three sequential models as outlined in Chapter Three. Digital transformation is embedded within BMI as one of its dimensions and is not tested as a separate predictor or moderated independently, consistent with the conceptual framework. BMI and DC were mean-centered before computing the interaction term to reduce multicollinearity between main effects and the

product term (Aiken & West, 1991). All results describe associations in a cross-sectional design and do not establish causal direction.

4.6.1 Model 1: Direct Effect of Business Model Innovation

Model 1 examined the direct association between BMI and organizational performance. Tables 4.10 presents the model summary, ANOVA, and coefficients.

Table 4.10: Model 1 (Direct Effect of BMI on Organizational Performance)

Model Summary

R	R^2	Adjusted R^2	Std. Error	Predictors
.548	0.300	0.290	0.274	Business Model Innovation

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.122	1	5.122	34.046	.000
Residual	11.940	147	0.081		
Total	17.062	148			

Coefficients

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	1.214	0.332		3.657	.000
Business Model Innovation	0.352	0.063	0.392	5.587	.000

Source: Research Data (2025)

BMI explained 30.0% of variance in organizational performance ($R^2 = 0.300$, Adjusted $R^2 = 0.290$), and the model was statistically significant ($F = 34.046$, $p < .001$). The BMI coefficient was positive and significant ($\beta = 0.392$, $p < .001$), indicating that firms reporting higher levels of BMI across revenue model innovation, distribution channel innovation, value proposition innovation, and digital transformation also tend to report better organizational performance. According to Cohen (1988), $R^2 = 0.300$ represents a large effect size, suggesting that BMI accounts for a substantively meaningful share of performance variance. The standardized

coefficient (β = 0.392) indicates a medium-to-large practical association — not merely a statistically detectable one. This finding is consistent with Clauss et al. (2019), who found that BMI is positively associated with firm performance, and with the RBV proposition that BMI represents a deployment of VRIN resources that differentiates firms.

4.6.2 Model 2: Adding Dynamic Capabilities

Model 2 added dynamic capabilities as an additional predictor to examine its direct association with organizational performance alongside BMI. Table 4.11 presents the results.

Table 4.11: Model 2 (Adding Dynamic Capabilities)

Model Summary

R	R^2	Adj. R^2	Std. Error	ΔR^2	F Change	Sig. F Change
.702	0.493	0.482	0.234	0.193	55.128	.000

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	8.406	2	4.203	51.183	.000
Residual	8.656	146	0.059		
Total	17.062	148			

Coefficients

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	0.512	0.294		1.741	.084
Business Model Innovation	0.328	0.054	0.345	6.074	.000
Dynamic Capabilities	0.487	0.066	0.458	7.425	.000

Source: Research Data (2025)

Adding dynamic capabilities produced the largest single increment across all three models (ΔR^2 = 0.193, F change = 55.128, $p < .001$), increasing explained variance from 30.0% to 49.3% (Adjusted R^2 = 0.482). Dynamic capabilities showed the strongest direct association with performance of any predictor in this model ($\beta = 0.458$, $p < .001$), which is consistent with Teece (2018) and Schoemaker et al. (2018). However, because this study is cross-sectional, this

association cannot be interpreted causally: it is equally plausible that better-performing firms invest more in capability development than that capabilities independently drive performance. The BMI coefficient remained positive and significant after adding dynamic capabilities ($\beta = 0.345$, $p < .001$), though slightly reduced from Model 1, indicating that dynamic capabilities account for some but not all of the variance previously associated with BMI. This partial reduction is expected, given that innovation investment and capability development are likely correlated organizational strategies.

4.6.3 Model 3: Testing Moderation: BMI × DC

Model 3 introduced the BMI × DC interaction term to test whether dynamic capabilities moderate the association between BMI and organizational performance. Table 4.12 presents the results.

Table 4.12: Model 3: Testing Moderation (BMI × DC)

Model Summary

R	R^2	Adj. R^2	Std. Error	ΔR^2	F Change	Sig. F Change
.746	0.556	0.541	0.220	0.063	10.142	.000

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	9.488	3	3.163	39.179	.000
Residual	7.574	145	0.052		
Total	17.062	148			

Coefficients

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	0.498	0.279		1.785	.076
Business Model Innovation	0.301	0.054	0.317	5.574	.000
Dynamic Capabilities	0.462	0.063	0.434	7.333	.000
BMI × DC	0.168	0.048	0.185	3.500	.001

Source: Research Data (2025)

The BMI × DC interaction term was positive and statistically significant (β = 0.185, p = .001), producing a significant incremental gain in explained variance (ΔR^2 = 0.063, F change = 10.142, p < .001). The full model explained 55.6% of variance in organizational performance (R^2 = 0.556, Adjusted R^2 = 0.541), which Cohen (1988) classifies as a large effect size. The significant interaction term confirms that the BMI-performance association is not uniform across firms it is stronger for firms with higher dynamic capabilities and weaker for those with lower capabilities. Interpreting this interaction correctly: the coefficient β = 0.185 indicates that as dynamic capabilities increase, the slope of the BMI-performance relationship becomes steeper. In practical terms, a Kenyan insurer investing in business model innovation is likely to realise greater performance improvements if it also possesses well-developed sensing, seizing, and transforming capabilities. The interaction adds precision to the BMI-performance picture it does not override the main effects. The BMI main effect (β = 0.317, p < .001) and the DC main effect (β = 0.434, p < .001) both remain significant in Model 3, indicating positive associations with performance at all capability levels. The interaction coefficient (β = 0.185) is modest relative to the main effects, which is consistent with what moderation typically produces in organizational research (Aiken & West, 1991). This means that both BMI and dynamic capabilities independently matter for performance, and their combination produces an additional but measured benefit.

4.6.4 Model Comparison and Incremental Validity

Table 4.13 presents the three-model comparison summarising the incremental contribution of each step.

Table 4.13: Summary of Hierarchical Regression Models

Model	Variables Entered	R^2	Adj. R^2	ΔR^2	F Change	Sig.
1	BMI	0.300	0.290	0.300	34.046	.000
2	BMI + DC	0.493	0.482	0.193	55.128	.000
3	BMI + DC + BMI×DC	0.556	0.541	0.063	10.142	.000

Note: BMI = Business Model Innovation; DC = Dynamic Capabilities. All F change values significant at p < .001.

Source: Research Data (2025)

Each model contributes both statistically and practically. Model 1 establishes the direct BMI-performance association (R^2 = 0.300). Model 2 shows that dynamic capabilities contribute the

largest single increment ($\Delta R^2 = 0.193$), underscoring their strong independent association with performance. Model 3 shows that the BMI × DC interaction adds a further increment ($\Delta R^2 = 0.063$). All three ΔR^2 values exceed the 0.02 threshold for practical significance recommended by Hair et al. (2019), and all F change values are significant at $p < .001$. The full model progresses from 30.0% to 55.6% explained variance, confirming that BMI, dynamic capabilities, and their interaction collectively provide a substantively meaningful account of performance differences across Kenyan insurance companies. The remaining 44.4% of unexplained variance reflects factors outside this model, including leadership quality, market conditions, claims experience, and other firm-level characteristics not captured in this study.

4.6.5 Summary of Hypothesis Testing

Table 4.14 summarises the hypothesis testing results from the hierarchical regression analysis.

Table 4.14: Summary of Hypothesis Testing Results

H	Statement	Result	Decision
H1	Business model innovation is positively associated with organizational performance of insurance companies in Kenya.	$\beta = 0.317$, $p < .001$	Supported
H2	Dynamic capabilities moderate the relationship between business model innovation and organizational performance of insurance companies in Kenya.	$\beta = 0.185$, $p = .001$	Supported

Source: Research Data (2025)

Both hypotheses are supported. H1 is supported by the positive and significant BMI coefficient across all models, with $\beta = 0.317$ in the final model ($p < .001$), confirming that firms reporting higher BMI activity also tend to report better organizational performance. Digital transformation, as a dimension embedded within BMI, contributes to this association and is not tested as a separate hypothesis, consistent with the conceptual framework established in Chapter Two. H2 is supported by the significant BMI × DC interaction ($\beta = 0.185$, $p = .001$), confirming that dynamic capabilities moderate the BMI-performance relationship. Because the study is cross-sectional, these results describe associations and do not establish causal direction. Both findings are consistent with the theoretical framework grounded in Dynamic

Capabilities Theory, Resource-Based View Theory, and Diffusion of Innovation Theory, and are discussed in relation to existing literature in Chapter Five.

4.7 Chapter Summary

This chapter presented the empirical findings of the study examining the association between business model innovation and organizational performance of insurance companies in Kenya, with dynamic capabilities as the moderating variable. The primary unit of analysis was the firm. Of the 63 licensed primary insurance companies targeted, 50 participated at the company level (79.4%), with 149 senior executive responses aggregated to firm-level means.

Descriptive analysis showed moderate and heterogeneous BMI adoption across four dimensions, with partnership innovation (M = 4.19) and distribution channel innovation (M = 3.71) recording the highest and lowest scores respectively. Digital transformation showed moderate adoption (M = 3.75), with internal analytical tools more developed than customer-facing integration. Dynamic capabilities revealed a notable gap between transforming (M = 4.28 for process redesign) and sensing (M = 3.22 for competitive intelligence), which has implications for how effectively firms identify innovation opportunities. Organizational performance scores were generally moderate, with brand recognition relatively strong (M = 4.24) but customer retention and complaint reduction the weakest indicator (M = 3.28).

The correlation matrix showed that dynamic capabilities had the strongest association with performance ($r = 0.586$, $p < 0.01$), followed by BMI ($r = 0.301$, $p < 0.01$) and digital transformation ($r = 0.187$, $p < 0.05$). The near-zero correlations between BMI and DC confirmed conceptual distinctiveness and supported the moderation rather than mediation framework. Diagnostic tests confirmed normality, absence of multicollinearity, and linearity across all variables.

The hierarchical regression proceeded in four models. Model 1 entered control variables. Model 2 added BMI, confirming a significant positive association with performance. Model 3 added dynamic capabilities, which contributed the largest incremental R^2 ($\Delta R^2 = 0.193$). Model 4 introduced the BMI × DC interaction term, which was significant ($\beta = 0.185$, $p = 0.001$, $\Delta R^2 = 0.063$), confirming that dynamic capabilities moderate the BMI-performance relationship. The full model explained 55.6% of variance in performance. All findings describe associations in a cross-sectional design and do not establish causal direction. The next chapter discusses these findings in relation to existing theory and literature.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter interprets and contextualises the empirical findings reported in Chapter Four within the theoretical frameworks and prior literature reviewed in Chapter Two. The chapter is organised as follows: Section 5.2 summarises the key findings; Section 5.3 discusses each finding in relation to existing evidence and identifies where results converge with, deviate from, or extend prior research; Section 5.4 articulates the study's theoretical, practical, and policy contributions; Section 5.5 presents recommendations grounded directly in the findings; Section 5.6 reflects critically on the limitations and their implications for interpreting results; and Section 5.7 identifies specific directions for future research. Throughout, language is kept consistent with the cross-sectional design: results describe associations rather than causal effects.

5.2 Summary of Key Findings

Three principal findings emerged from the hierarchical regression analysis. First, business model innovation (BMI) was positively and significantly associated with organizational performance ($\beta = 0.317$, $p < .001$) in Model 3, after accounting for dynamic capabilities. This association held consistently across all three models, suggesting it is not an artefact of model specification. Second, dynamic capabilities showed the strongest direct association with performance of any predictor ($\beta = 0.434$, $p < .001$), contributing the largest single increment in explained variance ($\Delta R^2 = 0.193$). Third, the BMI × DC interaction term was positive and significant ($\beta = 0.185$, $p = .001$), indicating that the BMI-performance association is stronger for firms with higher dynamic capabilities than for those with lower capabilities. The final model explained 55.6% of variance in organizational performance ($R^2 = 0.556$), with 44.4% remaining unexplained by the variables in this study.

5.3 Discussion of Findings

5.3.1 Business Model Innovation and Organizational Performance

The positive association between BMI and organizational performance ($\beta = 0.317$, $p < .001$) is consistent with the Resource-Based View proposition that firms deploying valuable, rare, and inimitable resources achieve stronger performance outcomes (Barney, 1991). In the context of this study, BMI encompassing revenue model innovation, distribution channel innovation,

value proposition enhancement, and digital transformation represents the deliberate reconfiguration of how insurance firms create and deliver value. The finding converges with Clauss et al. (2019), who reported positive BMI-performance relationships among European firms, and Geissdoerfer et al. (2018), who linked BMI to improved customer value and competitiveness. The present study extends these findings to an emerging market setting, suggesting that the resource-based mechanisms linking innovation to performance are not confined to developed-economy contexts with mature institutional environments.

However, the comparison with prior literature requires caution. The studies cited above were conducted in European manufacturing and services contexts with different competitive dynamics, regulatory frameworks, and digital infrastructure. That the association holds in Kenya's insurance sector characterised by lower penetration, constrained infrastructure, and evolving regulation is noteworthy, but the magnitude ($\beta = 0.317$) is more modest than some prior estimates, which may reflect the structural barriers that limit innovation returns in this environment. The descriptive findings add nuance: partnership innovation recorded the highest mean score ($M = 4.19$) while distribution channel innovation recorded the lowest ($M = 3.71$), suggesting that Kenyan insurers have made greater progress in forming alliances than in redesigning customer-facing delivery systems. This gap may partially explain why the BMI-performance association, while positive, is not stronger innovation activity concentrated in partnerships without commensurate investment in distribution and value proposition redesign may yield more limited performance gains. Additionally, since data were self-reported, the association may be influenced by common method bias, and the actual magnitude of the BMI-performance relationship measured with objective data could differ from what is reported here.

5.3.2 Dynamic Capabilities and Organizational Performance

Dynamic capabilities showed the strongest association with performance ($\beta = 0.434$, $p < .001$) and accounted for the largest incremental variance gain ($R^2 = 0.193$) across the three models. This is consistent with Teece (2018) and Schoemaker et al. (2018), who demonstrated that sensing, seizing, and transforming capabilities are positively associated with performance in insurance and service firms. The size of this association relative to the BMI coefficient suggests that capability development may be more strongly associated with performance than innovation investment in isolation, at least within this sample.

An important interpretive caveat applies here: because the design is cross-sectional, the direction of this association is ambiguous. It is equally plausible that firms with stronger

capabilities report better performance, or that better-performing firms have more resources to invest in capability development. Longitudinal data would be needed to disentangle these possibilities. The descriptive findings reveal a notable imbalance in capability development: transforming capabilities (process redesign, M = 4.28) were considerably more developed than sensing capabilities (competitive intelligence, M = 3.22). Dynamic Capabilities Theory argues that sensing is the prerequisite for effective seizing and transforming without accurately identifying market opportunities and emerging customer needs, firms may reconfigure internal processes in directions that do not reflect market realities (Teece, 2007). This asymmetry may mean that the strong capability-performance association observed here is being driven primarily by transforming capabilities, while underdeveloped sensing capabilities represent a gap that limits the full potential of the capability-performance relationship in Kenya's insurance sector.

5.3.3 Moderating Role of Dynamic Capabilities

The significant BMI × DC interaction ($\beta = 0.185$, $p = .001$) confirms that dynamic capabilities moderate the BMI-performance association: the relationship between BMI and performance is stronger for firms with higher dynamic capabilities than for those with lower capabilities. This finding is consistent with Clauss et al. (2019), who found that European firms with stronger capabilities extracted greater performance returns from BMI, and with the core theoretical proposition of Dynamic Capabilities Theory that capability level conditions the effectiveness of innovation investments (Teece, 2018).

The interaction should be interpreted as a pattern of association, not a causal mechanism. What the $\beta = 0.185$ coefficient indicates is that as dynamic capability scores increase, the slope of the BMI-performance relationship steepens. Firms at higher capability levels show a stronger positive BMI-performance association, while firms at lower capability levels show a weaker one. This does not mean that BMI is ineffective for low-capability firms the main effect of BMI ($\beta = 0.317$) remains significant in the full model but rather that capability level amplifies the returns associated with innovation activity. The interaction coefficient is modest relative to the main effects, which is typical of moderation effects in organizational research (Aiken & West, 1991), and should not be interpreted as indicating that capabilities are the dominant driver of the BMI-performance relationship. The interaction adds conditional precision to the main effect; it does not override it. The non-significant DT×DC term from earlier model specifications, which has been excluded from the final model, is consistent with the conceptual framework treating digital transformation as a BMI dimension rather than a separately

moderated construct. Digital transformation's contribution to performance is therefore captured within the BMI main effect and the BMI × DC interaction.

5.4 Contributions of the Study

5.4.1 Theoretical Contributions

This study makes three theoretical contributions. First, it extends the empirical application of the four-dimension BMI framework revenue model innovation, distribution channel innovation, value proposition innovation, and digital transformation to the insurance services sector in an emerging market context. Prior applications of this framework have been concentrated in European manufacturing and broad service industries (Clauss et al., 2019; Geissdoerfer et al., 2018). The finding that the framework is associated with performance in Kenya's insurance sector, which is characterised by information asymmetry, low customer financial literacy, and regulatory constraints, suggests that BMI dimensions are not context-specific to high-income markets, though the strength of associations may vary by institutional environment.

Second, the study contributes to Dynamic Capabilities Theory by providing evidence of a boundary condition: dynamic capabilities moderate the BMI-performance relationship but not all innovation-performance relationships equally. The significant BMI × DC interaction alongside the absence of a significant DT × DC interaction (in prior model specifications) suggests that dynamic capabilities are particularly important for complex, non-codified innovations like business model redesign that require organisational adaptation, and less critical for more standardised technology implementations. This adds empirical nuance to theoretical claims that dynamic capabilities uniformly enhance organisational change effectiveness (Teece, 2018).

Third, the study provides evidence that RBV and Dynamic Capabilities Theory mechanisms apply in Sub-Saharan African insurance markets, where institutional voids, capital constraints, and limited management capacity create conditions quite different from the developed-economy contexts in which these theories were originally developed. This contribution is qualified by the study's reliance on self-reported data and cross-sectional design, which limit the strength of the theoretical evidence produced.

5.4.2 Practical Contributions

The most directly actionable practical finding is the sensing capability gap. Kenyan insurance companies report competitive intelligence scores (M = 3.22) considerably below their

transforming capability scores (M = 4.28). Since Dynamic Capabilities Theory identifies sensing as the prerequisite for effective seizing and transforming, firms that invest in internal process redesign without simultaneously building market scanning and competitor monitoring systems may be adapting in directions that do not reflect actual customer needs or competitive threats. Insurance managers should treat the investment in formal market research functions and competitive intelligence systems as a priority complementary to not separate from BMI investment.

The moderation finding (β = 0.185) carries a specific practical implication: the return on BMI investment is not uniform across firms. For insurance companies considering whether to invest in revenue model redesign, distribution channel expansion, or value proposition enhancement, the findings suggest that the expected performance return will be higher if the firm also has or is simultaneously developing sensing, seizing, and transforming capabilities. This does not mean low-capability firms should defer BMI investment, since the BMI main effect (β = 0.317) is positive and significant regardless of capability level. It means that the two investments are complementary and that sequencing BMI investment before capability development may yield lower returns than pursuing both concurrently.

The customer retention anomaly identified in the descriptive findings firms report relatively strong brand recognition (M = 4.24) alongside the sector's lowest performance score for complaint reduction and policy retention (M = 3.28) points to a service delivery gap that is not directly explained by the regression model. This gap suggests that innovation in revenue models and distribution channels is not translating adequately into the claims experience and post-sale service quality that drives long-term customer loyalty. Insurance managers should consider whether BMI investment is sufficiently focused on claims process improvement and customer retention, rather than concentrated in acquisition-oriented activities.

5.4.3 Policy Contributions

The positive BMI-performance association (β = 0.317) provides evidence-based support for the Insurance Regulatory Authority to review whether current regulatory frameworks accommodate the forms of BMI most associated with performance improvement particularly usage-based insurance, microinsurance, and digital distribution channels. The study does not test the effect of specific regulatory provisions, but the finding that firms reporting higher BMI also tend to report better customer satisfaction, operational effectiveness, and market

competitiveness is relevant to regulatory decisions about whether to establish innovation sandboxes or fast-track approval processes for novel insurance products.

The sensing capability gap (M = 3.22 for competitive intelligence) suggests a coordination failure that industry associations are better positioned than individual firms to address. Sector-wide market intelligence functions tracking emerging customer needs, technology developments, and distribution innovations would provide inputs that individual small and medium-sized insurers cannot efficiently produce independently. The Association of Kenya Insurers could play a convening role in this regard, though this recommendation goes beyond what the study's data can directly establish.

5.5 Recommendations

5.5.1 For Insurance Companies

Based on the sensing capability gap identified in Section 5.3.2, insurance companies should establish or strengthen formal competitive intelligence functions. The descriptive data show that this is the weakest dimension of dynamic capabilities (M = 3.22, SD = 1.257), and Dynamic Capabilities Theory identifies sensing as the prerequisite for effective innovation and transformation. A targeted investment in systematic market monitoring tracking competitor product launches, customer complaint patterns, and regulatory developments directly addresses the capability gap most likely to limit BMI returns.

Based on the moderation finding ($\beta = 0.185$), BMI investment and capability development should be pursued concurrently rather than sequentially. Firms that invest in new revenue mechanisms, distribution channels, or value propositions without simultaneously developing the seizing and transforming capabilities to implement and embed those changes are likely to realise weaker performance returns. Practically, this means innovation project teams should include dedicated capability development milestones not just implementation targets and that performance management systems should track capability-building progress alongside innovation outcomes.

Based on the customer retention anomaly (M = 3.28 for complaint reduction and policy retention), insurance companies should review whether BMI investment is adequately directed toward claims experience and retention processes, in addition to product and distribution innovations. The gap between brand recognition scores and retention scores suggests that customer acquisition innovations are not being matched by equivalent investment in the post-sale experience that drives loyalty.

5.5.2 For Regulatory Authorities

The Insurance Regulatory Authority should consider whether current product approval timelines and distribution licensing processes constrain the forms of BMI that show the strongest performance associations in this study specifically revenue model innovations such as microinsurance and usage-based products, and digital distribution channel innovations. The study does not provide direct evidence on regulatory barriers, but the low mean score for distribution channel innovation (M = 3.71, the weakest BMI dimension) is consistent with the presence of implementation constraints beyond firm-level capability, which may include regulatory friction. A formal review of approval processes for novel insurance structures would enable a more direct evidence-based regulatory response.

5.5.3 For Industry Associations

The Association of Kenya Insurers should consider whether it can play a role in addressing the sensing capability gap through sector-wide market intelligence functions. The high standard deviation on competitive intelligence scores (SD = 1.257) indicates that some firms have invested substantially in this capability while others have not, producing unequal innovation returns across the sector. A shared market intelligence platfor tracking distribution innovations, customer complaint trends, and technology developments would allow smaller insurers to access sensing inputs that they cannot efficiently produce independently, potentially narrowing the capability gap and improving sector-wide BMI effectiveness.

5.6 Limitations of the Study

The most consequential limitation is the cross-sectional design. All variables were measured at a single point in time, which means the study cannot establish the direction of the observed associations. The positive BMI-performance relationship ($\beta = 0.317$) is consistent with the hypothesis that BMI drives performance, but it is equally consistent with the hypothesis that better-performing firms have the resources to invest more in BMI. This ambiguity extends to the dynamic capability's findings: the strong DC-performance association ($\beta = 0.434$) may reflect that capable firms perform better, or that successful firms invest more in capability development. The moderation result ($\beta = 0.185$) is similarly cross-sectional. The practical recommendations in Section 5.5 assume the theoretically specified causal direction, but this assumption is not empirically verified by this study's design. Researchers and practitioners should interpret recommendations as directionally informed by theory and consistent with observed associations, rather than as causally established prescriptions.

The reliance on executive self-report for all constructs introduces common method bias as a real threat to validity. Senior executives assessed both the independent variables (BMI, dynamic capabilities) and the dependent variable (organizational performance) using the same questionnaire format. This creates the risk that observed correlations partly reflect shared response tendencies such as optimism or consistency biases rather than true construct relationships. Harman's single-factor test suggested that a dominant common method factor is unlikely (first factor = 28.4% of variance), but this test is not conclusive. The effect sizes reported particularly for the BMI-performance association may be inflated relative to what would be observed with objective performance data from audited financials or independent customer surveys. Future studies should incorporate archival performance measures to triangulate against self-reported assessments.

The restriction of respondents to senior executives creates a perspective limitation. Senior executives are well positioned to report on strategic innovation initiatives and firm-level capability investments, but they may be less accurate about implementation challenges, employee-level capability gaps, and the extent to which innovations have actually reached customers. The study's findings reflect the innovation and performance reality as seen from the top of the organisation, which may differ from the operational reality experienced by middle managers, frontline staff, and customers. Studies incorporating multiple organisational levels would provide a more complete picture of how BMI and capabilities translate into performance at the customer interface.

The study's focus on Kenya's insurance sector limits geographic and sectoral generalisability. Kenya's specific combination of high mobile money penetration, low insurance penetration, and a developing digital infrastructure creates a context that differs from other African markets and from developed-economy insurance sectors. The theoretical mechanisms identified that BMI is associated with performance and that dynamic capabilities moderate this relationship — may generalise across contexts, but the magnitude of the associations and the specific BMI dimensions that are most strongly associated with performance are likely to vary. The findings should not be applied directly to other markets without replication.

The 44.4% of unexplained variance in the final model indicates that important determinants of organisational performance were not captured. Leadership quality, organisational culture, market conditions, claims management efficiency, and the competitive landscape are all factors that are likely to influence performance outcomes but were not included in the model. The absence of controls for firm size and financial performance means that the observed BMI and

capability associations may be partially confounded by these unmeasured characteristics. This does not invalidate the findings, but it means that the reported associations represent upper-bound estimates of the unique explanatory contribution of BMI and dynamic capabilities.

5.7 Areas for Further Research

i. A longitudinal study tracking BMI investment and capability development at one point in time and performance outcomes at a subsequent point ideally two to three years later would provide the causal evidence that the present cross-sectional design cannot. Given the time lags between innovation investment and performance returns identified in the literature (Broeders & van Oijen, 2021), a longitudinal design is the most important methodological extension needed to build on this study's findings.

ii. A mixed-method study combining the quantitative regression approach used here with qualitative case studies of selected insurers would illuminate the mechanisms through which BMI translates into performance, and through which dynamic capabilities amplify those returns. The interaction effect identified in this study describes the moderation pattern statistically but does not explain the organisational processes through which capabilities condition innovation effectiveness. Process-level qualitative data would address this gap.

iii. Future studies should incorporate objective performance measures including claims settlement ratios, expense ratios, customer retention rates, and Net Promoter Scores from independent surveys alongside or instead of executive self-report, to reduce common method bias and produce effect size estimates that are less susceptible to social desirability inflation.

iv. Comparative studies across East African insurance markets Kenya, Tanzania, Uganda, and Rwanda would test whether the BMI-performance associations and the moderating role of dynamic capabilities replicate across markets with similar but not identical institutional environments. Such comparisons would help identify which findings are specific to Kenya's regulatory and infrastructure context and which reflect more general mechanisms.

v. Future research should examine whether the capability-performance associations differ by insurance category life, general, and composite insurers given that these categories differ in product complexity, customer relationship duration, and innovation feasibility. The present study aggregated across categories due to sample size constraints, but

disaggregated analysis would provide more precise and actionable findings for insurers in each segment.

5.8 Chapter Summary

This chapter interpreted the study's empirical findings in relation to the theoretical framework and prior literature. The discussion established that the positive BMI-performance association is consistent with RBV Theory and converges with prior international evidence, while extending those findings to Kenya's insurance sector with appropriate qualifications about magnitude, measurement, and contextual transferability. The dynamic capabilities findings confirmed both a strong direct association with performance and a significant moderating role in the BMI-performance relationship, with the moderation interpreted as a conditional amplification of the BMI effect rather than a dominant causal mechanism. The sensing capability gap the largest within-sector capability deficit identified in the descriptive analysis was highlighted as the most actionable finding for both firm-level and sector-level interventions. Theoretical contributions were articulated around three themes: extension of the BMI framework to insurance services, evidence of a boundary condition for Dynamic Capabilities Theory, and application of RBV and DC Theory to a Sub-Saharan African emerging market context. Recommendations were grounded directly in the study's findings rather than general best practices, and limitations were discussed in terms of their specific implications for result interpretation. Future research directions were made specific and method-driven, prioritising longitudinal, mixed-method, and multi-country designs to address the causal and contextual gaps that the present study leaves open.

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APPENDICES

Appendix I: Letter of Introduction

I am currently pursuing a master's degree at Strathmore University and conducting research on the effect of business model innovation and dynamic capabilities on non-financial performance of insurance companies in Kenya.

I kindly request your participation in this study to help me complete my thesis. All information provided was treated with the highest level of confidentiality and anonymity. Thank you in advance for your cooperation.

Yours sincerely,

Philemon Onyango Adede

Appendix II: Questionnaire

The following section aimed to gather information about your professional expertise and your organization. Kindly tick where appropriate.

Section A: Demographic and Organizational Information

1. Position held in the Company

i. Chief Executive Officer (CEO)
ii. Head of Strategy/Innovation/Digital Transformation
iii. Chief Financial Officer (CFO)
iv. Chief Operations Officer (COO)

2. Indicate your gender

i. Male
ii. Female

3. Indicate your age bracket.

i. Under 30 years
ii. 30-40 years
iii. 41-50 years
iv. 51-60 years
v. Over 60 years

4. Highest level of Education

i. Certificate
ii. Diploma
iii. Bachelor's Degree
iv. Master's Degree
v. PhD

5. Years of Experience in the Insurance Industry

Less than 5 years

5-10 years

11-20 years

21-30 years

Over 30 years

Section B: Business Model Innovation

Please rate the following statements about business model innovation in your organization. (1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree)

Statement	**1**	**2**	**3**	**4**	**5**
Revenue Model Innovation					
Our company generates significant revenue from new digital insurance products and microinsurance targeting underserved market segments.					
We earn substantial income from usage-based insurance products where premiums are based on actual customer behaviour or risk exposure.					
Distribution Channel Innovation					
Our organization distributes insurance products through innovative channels including mobile platforms, bancassurance partnerships, and direct-to-consumer digital channels.					
We utilize aggregator platforms and comparison websites to reach customers and expand our market presence.					
Our organization has formed strategic partnerships with technology providers, fintech companies, and industry associations to enhance service delivery and develop innovative solutions.					
Value Proposition Enhancement					
Our company provides personalized insurance coverage tailored to individual customer risk profiles with instant claims settlement for qualifying claims.					
We bundle insurance products with complementary services and provide preventive risk management services to customers.					
Digital Transformation					
Our organization uses automated underwriting systems that make policy approval decisions and offers instant policy issuance capabilities.					
Our company uses predictive modelling and advanced analytics to assess risks, set premium rates, and identify target market segments.					
Our organization provides 24/7 digital service channels with seamless omnichannel experience and offers multiple digital payment options including mobile money and digital wallets.					

Section C: Dynamic Capabilities

Please rate the following statements about dynamic capabilities in your organization. (1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree)

Statement	1	2	3	4	5
Our organization conducts systematic market research to identify emerging customer needs and actively monitors industry trends and technological developments.					
We have established competitive intelligence systems that continuously gather information about competitor strategies and market dynamics.					
Our company maintains formal customer feedback mechanisms including surveys and complaint analysis to understand customer experiences.					
Our organization has effective processes for implementing innovation projects and strategically allocates resources to digital transformation initiatives.					
We actively develop partnerships with technology providers and other stakeholders, and have robust change management processes for new technologies.					
Our company demonstrates flexibility in restructuring operations when needed and invests significantly in employee training and talent development programs.					
We regularly redesign business processes to improve efficiency and have performance management systems that align employee incentives with innovation goals.					

Section D: Organizational Performance

Please rate the following statements about organizational performance in your organization. (1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree)

Statement	1	2	3	4	5
Our customers consistently rate their overall satisfaction positively and would recommend our company to others based on high Net Promoter Scores.					
Customer complaint rates in our organization have decreased significantly and our policy retention rates demonstrate strong customer loyalty.					
Our average claims processing and settlement time has improved substantially compared to previous years.					
The expense ratio in our company compares favourably with industry benchmarks and our policy issuance speed has become significantly faster.					

Our company has experienced consistent market share growth in key insurance segments and successfully increased new business acquisition rates.					
Our brand is widely recognized and respected in the Kenyan insurance market and we maintain a strong competitive position relative to other insurers.					
Our policy administration processes demonstrate high accuracy, customer complaints are resolved promptly, service channels are easily accessible, and we maintain a high claims settlement ratio.					

Appendix III: List of Insurance Companies in Kenya

1. APA Insurance
2. Britam General Insurance
3. CIC General Insurance
4. Jubilee Insurance
5. ICEA LION General Insurance
6. Madison Insurance
7. UAP Insurance
8. Sanlam General Insurance
9. Old Mutual General Insurance
10. GA Insurance
11. Heritage Insurance
12. Occidental Insurance
13. Pacis Insurance
14. AAR Insurance
15. AIG Kenya Insurance
16. Allianz Insurance
17. Cannon Assurance
18. Fidelity Shield Insurance
19. First Assurance
20. Geminia Insurance
21. Kenindia Assurance
22. Kenya Orient Insurance
23. Metropolitan Cannon Insurance
24. Takaful Insurance of Africa
25. Tausi Assurance
26. Trident Insurance
27. Pioneer General Insurance
28. Resolution Insurance
29. Saham Assurance
30. Britam Life Assurance
31. ICEA LION Life Assurance
32. Jubilee Life Insurance
33. Liberty Life Assurance
34. Old Mutual Life Assurance
35. Sanlam Life Insurance
36. CIC Life Assurance
37. Madison Life Assurance
38. Metropolitan Life Insurance
39. Pioneer Life Assurance
40. Prudential Life Assurance
41. APA Life Assurance
42. Kenya Orient Life Assurance
43. GA Life Assurance
44. Capex Life Assurance
45. Directline Assurance
46. Fidelity Insurance

47. Gateway Insurance
48. Intra Africa Assurance
49. Invesco Assurance
50. Monarch Insurance
51. Corporate Insurance
52. Mayfair Insurance
53. East Africa Reinsurance
54. Kenya Reinsurance Corporation
55. African Reinsurance Corporation
56. Continental Reinsurance
57. WAICA Reinsurance
58. ZEP-RE (PTA Reinsurance)
59. First Reinsurance
60. AMP Reinsurance
61. One Shield Insurance
62. Swiss Re Africa
63. Munich Reinsurance

Appendix IV: SBS Ethical Approval

Strathmore UNIVERSITY

20th November 2025

Mr Adede Philemon,
adede.philemon@strathmore.edu

Dear Mr Adede,

RE: The Moderating Influence of Dynamic Capabilities on the Relationship Between Business Model Innovation and Performance of Insurance Companies in Kenya

This is to inform you that SU-ISERC has reviewed and **approved** your above SU-masters research proposal. Your application reference number is **SU-ISERC3111/25.** The approval period is from **20th November 2025 to 19th November 2026.**

This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, and MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification
iv. Any changes, anticipated or otherwise, that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 hours
v. Clearance for the export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) https://research-portal.nacosti.go.ke/ and obtain other clearances needed.

Yours sincerely,

Mr Ambrose Rachier,
Chairperson; SU-ISERC

Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703 034000
Email admissions@strathmore.edu www.strathmore.edu

Appendix V: NACOSTI Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **866340**

Date of Issue: **27/November/2025**

RESEARCH LICENSE

This is to Certify that Mr.. Philemon ONyango Onyango of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: The Moderating Influence of Dynamic Capabilities on the Relationship Between Business Model Innovation and Performance of Insurance Companies in Kenya for the period ending : 27/November/2026.

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