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Exploring Effective Technological and Innovation Strategies for Sustaining Fintech Startups in Nairobi, Kenya, Beyond 5 Years

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
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Abstract

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MS, Strayer University, 2021

BS, Bowie State University, 2017

Research Project Submitted in Partial Fulfillment

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October 2025

Abstract

Some small financial technology, or fintech, startup leaders in Nairobi, Kenya, lack the technological and innovation strategies required to sustain operations beyond 5 years. High failure rates among fintech startups in the early stages of operation affect financial inclusion and economic development in the region. Grounded in resource-based view theory, this qualitative pragmatic inquiry was to explore effective technological and innovation strategies fintech startup leaders in Nairobi use to sustain operations beyond 5 years. Data was collected through semistructured interviews with eight fintech startup leaders from different firms. Thematic analysis revealed seven major themes: (a) leveraging technological infrastructure, (b) innovating products and processes, (c) adopting financial resource management, (d) developing human capital, (e) adaptive regulatory compliance, (f) strategic partnerships and networks, and (e) early challenge mitigation. The findings confirm and extend existing literature demonstrating the centrality of technological adaptability, partnerships, and regulatory integration in emerging markets. A key recommendation is that fintech leaders should embed compliance in product design and invest in scalable digital infrastructures to strengthen sustainability. Implications for positive social change include the potential for fintech leaders, policymakers, and investors to expand financial inclusion for underserved populations, generate employment opportunities, and contribute to sustainable economic growth in Nairobi and beyond.

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Dedication

I dedicate this doctoral study to the absolute love of my life, my son, C. Israel. You are my daily source of motivation and joy. Every step of this journey was fueled by the desire to show you that with faith, perseverance, and determination, nothing is impossible. I love you deeply, and this accomplishment is as much yours as it is mine.

I also dedicate this work to my late mother's memory and to my grandparents, Mr. and Mrs. Jallah, who raised me after her passing and set a strong foundation of faith, discipline, and resilience in my life. Their sacrifices and values have carried me through every challenge.

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To my family and friends, your belief in me has been my anchor. A special thank you to my mentor, Faith, who stood by me and literally held my hand from start to finish. Your encouragement and guidance will forever remain in my heart.

Academically, I am deeply grateful to my chair, Dr. Williams, and to my committee member, Dr. Musil, for their patience, wisdom, and commitment to excellence. Your feedback and support challenged me to grow and made this project possible. This study marks a beginning, not an end. I may be the first in my family to achieve this milestone, but I know I will not be the last.

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Section 1: Foundation of the Project

Background of the Problem

Sustaining financial technology, or fintech, startups beyond 5 years remains a critical challenge in emerging economies, particularly in Nairobi, Kenya, where digital financial services have significantly enhanced financial access and efficiency. According to Harsono and Suprapti (2024), digital platforms like mobile banking and mobile money services have contributed to economic inclusion, but high failure rates persist among startups. Ndung'u (2021) supported this view, citing the volatile operational environment and high compliance burdens as significant barriers to longevity. While innovations such as M-Pesa and Tala have demonstrated initial success, many smaller fintech firms struggle to remain viable after the initial launch phase. These concerns raise red flags for investors and policymakers focused on financial stability and sustainable innovation. Understanding the root causes of early failure in the fintech sector sets the stage for evaluating strategies to enhance Nairobi's startup resilience.

The sustainability challenges facing fintech startups in Nairobi are primarily rooted in regulatory complexity, constrained financing, cybersecurity threats, and limited scalability. While regulations such as those enforced by the Central Bank of Kenya and the Kenya Data Protection Act (2019) help in protecting consumers and promoting financial stability, they often impose high compliance costs that burden early-stage fintech firms (Chitavin et al., 2021; Molla & Biru, 2023). In addition, access to long-term capital remains limited, forcing startups to rely on short-term or informal funding, which rarely supports the sustained growth required for technological investment or scaling operations (Ali et al., 2024; Odeyemi et al., 2024). These combined pressures can hinder innovation, reduce competitiveness, and lead to premature business failure. Understanding how startups adapt to these challenges provided the foundation for examining the role of internal capabilities in enhancing long-term sustainability.

Research suggests that fintech startups equipped with robust technological capabilities, strategic alliances, and skilled human capital are more likely to sustain operations beyond the initial 5 years. Kayser et al. (2023) found that firms investing in internal innovation and cross-sector partnerships can withstand market volatility and regulatory shifts. However, most existing studies emphasize fintech adoption trends or regulatory frameworks, offering limited insights into how leadership strategically manages internal resources for long-term viability (Assenova & Agarwal, 2023; Mhlanga, 2024). This gap limits practical understanding of sustainability in high-risk environments like Nairobi. To address the gap, this project examined how fintech leaders in Nairobi deploy innovation, manage financial resources, and cultivate human capital to ensure business longevity. These findings provided actionable strategies for entrepreneurs, investors, and policymakers aiming to strengthen the resilience of the fintech sector in emerging markets.

Business Problem Focus and Project Purpose

The specific business problem is that some fintech startup leaders in Nairobi lack the technological and innovative strategies required to sustain operations beyond a 5-year period. Therefore, the purpose of this qualitative pragmatic inquiry project was to explore the technological and innovative strategies used by fintech startup leaders in Nairobi to sustain operations beyond 5 years. Through a qualitative analysis, this project aimed to identify how fintech firms manage their technological capabilities, financial resources, and human capital to overcome sustainability challenges. By exploring the lived experiences of fintech leaders, this research contributed to both academic literature and practical applications, providing insights into effective business strategies for fintech longevity in Nairobi's competitive ecosystem.

This project targeted fintech startup leaders, executives, and innovation managers in Nairobi who have successfully sustained their firms beyond 5 years. The sampling method was purposive sampling, selected participants based on their experience in implementing successful technological and innovative strategies for business sustainability. Key participant eligibility criteria included 5 years of business operation, demonstrated technological and innovation strategy use, and a leadership role in their fintech startups.

The geographical focus of this project was Nairobi, Kenya, a hub for fintech innovation and one of Africa's leading financial technology ecosystems. Data sources for this project consisted of semistructured interviews with fintech leaders to gain firsthand insights into sustainability strategies, publicly available reports, company publications, and industry white papers on fintech innovation, regulatory frameworks, and business sustainability.

I anchored this project in the resource-based view (RBV) theory, which explained how firms gain and sustain competitive advantage by strategically managing internal resources that are valuable, rare, inimitable, and nonsubstitutable (Barney, 1991). RBV has been widely applied in strategic management to explain why some firms outperform others despite operating in similar external environments. In the context of fintech, this framework allowed for a focused examination of how startups optimize internal capabilities such as technological innovation, financial resource planning, and human capital development to achieve operational longevity (Elouaourti & Ibourk, 2024; Helfat et al., 2023). These internal assets are particularly critical in high-risk markets like Nairobi, where external volatility demands that startups build resilient resource configurations. Therefore, RBV provided a suitable lens for exploring how fintech leaders strategically allocate and adapt resources to sustain operations beyond the critical 5-year threshold.

This research yielded practical implications for fintech entrepreneurs, investors, and policymakers by identifying key strategies for enhancing business longevity in the fintech sector. By addressing the research gap in fintech sustainability, the project aimed to provide actionable insights for navigating regulatory challenges, optimizing financial resources, and fostering technological innovation to support long-term fintech success in Nairobi, Kenya.

Research Question

What technological and innovation strategies do fintech startup leaders in Nairobi, Kenya, use to sustain operations beyond 5 years?

Assumptions and Limitations

Assumptions

Assumptions are factors presumed to be true, but the researcher cannot fully verify them (Marshall & Rossman, 2016). In this project, the first assumption was that participants provide accurate, honest, and detailed responses during interviews. Because the project relied on qualitative data from fintech startup leaders in Nairobi, participant responses contributed to shaping the project's findings. A second assumption was that the technological and innovation strategies explored in this project directly impact fintech startup sustainability. Another assumption was that the selected sample of fintech leaders represented broader industry trends in Nairobi's fintech sector.

Limitations

Limitations refer to potential weaknesses or constraints that may affect the project's scope, methodology, or findings (Ellis & Levy, 2009). One limitation of this project was the sample size, because it only selected fintech startup leaders in Nairobi rather than a broader, randomized population. A second limitation was the reliance on self-reported data, which may introduce participant bias due to memory recall issues or the tendency to present experiences favorably. Another limitation was the influence of external economic and regulatory factors, which may change over time.

Transition

In this section, I established the foundation for the project by defining the research problem, purpose, and conceptual framework. I highlighted the high failure rate of fintech startups in Nairobi and the need to explore how business leaders use technological and innovative strategies to sustain operations beyond 5 years. Through this discussion, I have demonstrated that effective internal resource management, anchored in the RBV framework, and the project’s assumptions and limitations provide a solid context for understanding fintech sustainability.

In Section 2, I comprehensively review the professional and academic literature on fintech startup sustainability, RBV theory, and key business challenges in Nairobi. In Section 3, I describe the research methodology, including participant selection, data collection techniques, and data analysis procedures. Finally, in Section 4, I detail the project’s findings, discuss their implications for business practice, and outline recommendations and implications for positive social change.

Section 2: The Literature Review

A Review of Professional and Academic Literature

Overview

In this literature review, I critically explore the strategic factors influencing the sustainability of fintech startups in Nairobi, Kenya. Fintech innovations have transformed the financial landscape in Kenya by enhancing access to credit, digital payments, and mobile banking (Mugo, 2023; Ndung'u, 2021). Despite this progress, most fintech ventures in Nairobi struggle to operate beyond the first 5 years due to regulatory complexities, limited access to capital, cybersecurity risks, and scalability challenges (Osabutey & Jackson, 2024; Malyshev, 2025). This review explores technological and innovation strategies that support long-term survival, providing a theoretical and empirical foundation for understanding how fintech firms build resilience and competitive advantage.

To ensure scholarly rigor and depth, peer-reviewed journal articles, government reports, and seminal books were sourced from databases such as ProQuest, EBSCOhost, JSTOR, ScienceDirect, Scopus, and the Walden University Library. Keywords used in the search included *fintech startup sustainability, technological innovation in fintech, fintech in Nairobi, regulatory compliance fintech,* and *resource-based view (RBV) theory in entrepreneurship.* Selection criteria prioritized peer-reviewed sources published within the past 5 years to ensure relevance and accuracy.

Table 1

Literature Review Sources

Sources	Within 5 years	Older than 5 years	Total
Peer-reviewed journal articles	73	4	77
Books	3	3	6
Dissertations/master's theses	0	0	0
Government documents	2	0	2
Other	6	0	6
Total	84	7	91
Percentage peer-reviewed	85%		

I have structured this literature into four major sections. First, in the application to the applied business problem section, I discuss the high failure rate of fintech startups in Nairobi and the practical need for sustainability strategies. Second, in the conceptual framework section, I introduce the RBV theory as the guiding theoretical lens for the project. Third, in the themes found in the literature section, I analyze external and internal factors affecting fintech sustainability, including ecosystem support, regulatory adaptation, cybersecurity, consumer trust, and financial inclusion. Finally, in relation to previous research, I compare prior studies, identify literature gaps, and highlight how this project contributes unique qualitative insights into the fintech sector in Nairobi.

Application to the Applied Business Problem

Internal Challenges and Innovation Strategies Among Nairobi's Fintech Startups

The sustainability of fintech startups in Nairobi remains a persistent challenge, as many of these firms fail to operate beyond their initial 5 years. Although digital financial services such as mobile banking, peer-to-peer lending, and digital wallets have transformed financial accessibility in Kenya, most emerging fintech firms face structural and strategic limitations threatening their longevity (Osabutey & Jackson, 2024). This contradiction highlights a critical gap between innovation and long-term viability. While high-profile fintech firms like M-Pesa and Branch have successfully expanded, most early-stage startups encounter scalability constraints, insufficient financial planning, and limited adaptability to changing market and regulatory dynamics (Muathe et al., 2022; Ndung'u, 2021). These patterns indicate the need for targeted innovation strategies and internal resource management frameworks that promote resilience and growth. In the following paragraph, I explored the internal and external barriers contributing to the high failure rate of Nairobi-based fintech startups, focusing on regulatory demands, cybersecurity risks, and capital limitations.

Fintech startups in Nairobi face various interconnected challenges contributing to their high failure rate, particularly in regulation, cybersecurity, and investment access. Emerging startups must operate within a complex and evolving regulatory environment governed by institutions such as the Central Bank of Kenya and enforced through policies like the Kenya Data Protection Act (2019), both of which impose compliance costs that many early-stage firms struggle to manage (Elouaourti & Ibourk, 2024; Molla & Biru, 2023). Unlike traditional financial institutions with strong infrastructures and long-term capital buffers, fintech firms often lack the regulatory expertise and financial depth to remain compliant without undermining their innovation capacity. As Fatorachian et al. (2024) and Odeyemi et al. (2024) observed, failure to align internal financial planning with external policy demands significantly increases the likelihood of early exit from the market. These findings highlight the strategic importance of resource allocation and compliance planning for fintech leaders who aim to sustain operations beyond the 5-year threshold. In the next paragraph, I explored how capital access and cybersecurity risks further impact startup viability in Nairobi's fintech sector.

Access to capital and cybersecurity preparedness are two critical challenges that significantly influence the sustainability of fintech startups in Nairobi. Many firms cannot secure long-term venture capital or traditional financing due to investor concerns about high operational risk and uncertain returns in fintech (Disrupt Africa, 2023; Kayser et al., 2023). Even with support from angel investors and accelerator programs, these startups often lack the financial depth required to scale and stabilize their operations. Simultaneously, increasing exposure to cybersecurity threats, such as data breaches, online fraud, and system intrusions, places additional strain on limited resources and threatens user trust (Haddad & Hornuf, 2023; Kamuangu, 2024). Startups not prioritizing solid cybersecurity frameworks face financial losses, reputational harm, and compliance penalties, further limiting their access to investment and market competitiveness. These financial and security vulnerabilities highlight the urgent need for integrated risk management strategies that combine financial planning with digital resilience. The following paragraph addresses how startups that proactively manage these challenges tend to outperform those that do not, reinforcing the value of internal resource optimization.

While many fintech startups in Nairobi struggle with regulatory and capital-related challenges, those strategically managing their internal resources often demonstrate stronger resilience and competitive positioning. According to the RBV theory, firms can build sustainable advantages by leveraging valuable, rare, inimitable, and nonsubstitutable (VRIN) resources such as proprietary technology and specialized expertise (Barney, 1991; Fitzgerald & Kihara, 2024). Research shows that fintech firms that invest in digital infrastructure, such as fraud detection tools, secure payment platforms, and analytics systems, are better equipped to respond to market disruptions and regulatory pressures (Elouaourti & Ibourk, 2024). These resource-based strategies reduce operational risks and improve firms' ability to scale and innovate, giving them a distinct edge in Nairobi's increasingly competitive fintech environment.

In this project, I applied RBV theory to examine how fintech leaders in Nairobi develop and utilize internal resources such as technological infrastructure, innovation capacity, and strategic partnerships to maintain competitiveness and survive beyond 5 years. Previous studies have shown that internal resource configuration is pivotal in business sustainability, especially in rapidly evolving industries like fintech. The RBV framework helped in identifying how certain intangible assets, such as technological know-how and human capital, influence the strategic decisions of fintech startups and contribute to their longevity.

Building on Prior Research in the Fintech Sector

Many previous studies on fintech in Africa have focused on adoption trends, financial inclusion, and digital market expansion. While these studies contribute important macroeconomic insights, they often overlook the organizational strategies fintech firms use to maintain long-term viability, particularly in urban startup ecosystems like Nairobi. Innovative fintech startups in Kenya are reshaping the financial services landscape and challenging traditional institutions through agile, technology-driven models (Hakizimana et al., 2023). These transformations underscore the urgency to understand how such firms sustain their competitive edge in a dynamic regulatory and economic environment. A significant limitation of the existing literature is its reliance on quantitative methodologies, emphasizing statistical outcomes over contextualized, experience-based insights from fintech entrepreneurs (Koranteng & You, 2024; Mhlanga, 2024; Mule et al., 2021). As a result, there is a gap in understanding how internal decision-making and innovation strategies directly influence sustainability beyond the critical 5-year threshold. In the next paragraph, I addressed how this project responds to that gap through its qualitative focus.

This project contributes to the literature by shifting the focus toward the internal resources and innovation strategies of successful fintech leaders in Nairobi, Kenya. While previous research has examined regulatory challenges and consumer adoption (Odeyemi et al., 2024; KPMG, 2022), few studies have investigated how these leaders strategically use technological infrastructure and innovation capacity to maintain operational continuity. By gathering qualitative insights directly from fintech entrepreneurs who have surpassed the 5-year survival mark, I aim to generate practical recommendations to inform entrepreneurial decision-making and policy development. These insights may support investors, regulators, and business leaders in cultivating a more resilient fintech ecosystem in Nairobi. In doing so, the research fills a critical gap by offering a grounded, insider perspective on long-term sustainability practices in African fintech.

Conceptual Framework

Resource-Based View (RBV) theory

RBV theory provides a strategic lens for understanding how organizations achieve and maintain competitive advantage through the effective use of internal resources. Initially proposed by Wernerfelt (1984) and later refined by Barney (1991), RBV argues that firms are more likely to sustain operations over time when they possess resources that are VRIN (Barney, 1991; Wernerfelt, 1984). These internal resources may include advanced technological infrastructure, skilled personnel, financial capital, and strategic alliances. When effectively managed, such assets enable firms to outperform competitors regardless of external market conditions (Elouaourti & Ibourk, 2024). This theoretical foundation is instrumental in examining entrepreneurial settings where access to external support is limited. The next paragraph explores how RBV theory is particularly relevant to fintech startups operating in high-pressure environments like Nairobi.

RBV theory is particularly relevant to fintech startups in Nairobi, where firms operate in a dynamic, high-risk financial environment shaped by regulatory, technological, and resource-related constraints. These startups often lack the external buffers available to established institutions. They must therefore rely heavily on internal capabilities such as innovation capacity, human expertise, and financial agility to remain competitive (Cuthbertson & Furseth, 2022). By applying the RBV framework, in this project, I investigated how fintech leaders strategically manage these internal resources to overcome systemic challenges and maintain operational continuity beyond the 5-year threshold. Understanding how firms convert internal strengths into long-term sustainability is crucial for developing effective business models in volatile markets (Fitzgerald & Kihara, 2024). The next section outlined how RBV has evolved within strategic management theory and highlighted its integration with dynamic capabilities in recent literature.

Evolution of RBV Theory in Strategic Management

RBV has become a foundational theory in strategic management, widely used to explain why some firms outperform others despite facing similar external conditions. Scholars such as Barney (1991) and Fitzgerald and Kihara (2024) asserted that firms with superior internal resources, such as proprietary technology, financial agility, and skilled human capital, are more likely to develop sustainable competitive advantages. Early RBV theorists like Wernerfelt (1984) emphasized the need for firms to effectively organize these resources and strategically align them with their objectives. As the theory evolved, scholars began integrating RBV with the dynamic capabilities framework, which focuses on a firm's ability to adapt and reconfigure internal resources in response to market turbulence (Teece et al., 1997). This integration is particularly useful in fast-moving sectors like fintech, where sustained performance depends on internal strength, agility, and responsiveness. In the next paragraph, I explored how fintech firms apply these combined frameworks to digital innovation and resilience in emerging markets.

RBV remains a vital framework for understanding how fintech firms build operational resilience by strategically managing internal resources in environments marked by rapid technological disruption and shifting regulatory demands. Recent studies emphasize that fintech startups investing in proprietary technologies, such as artificial intelligence (AI) driven analytics, blockchain infrastructure, and digital lending platforms, tend to outperform peers that lack such capabilities, particularly in sub-Saharan African markets (Nguimkeu & Okou, 2021). These findings support RBV's claim that internally developed resources can drive long-term survival and innovation. However, RBV has limitations, especially in volatile ecosystems where external factors such as policy changes, market fluctuations, and infrastructure constraints strongly influence firm performance. As a result, scholars increasingly advocate for a hybrid approach that complements RBV with ecosystem-based or dynamic capabilities perspectives to capture both internal strength and external adaptability (Barney, 1991; Elouaourti & Ibourk, 2024). This broader lens enables a complete understanding of what drives fintech sustainability in emerging markets like Nairobi.

Key RBV Components in Fintech Sustainability

Technological Resources and Competitive Advantage. Technological innovation is a foundational component of RBV, especially in fintech sectors driven by constant digital transformation. RBV holds that proprietary technologies, such as fraud detection algorithms, mobile payment systems, and AI-based risk tools, offer firms a distinct advantage when they are valuable, rare, inimitable, and nonsubstitutable (Barney, 1991; Fitzgerald & Kihara, 2024). In the context of Nairobi, fintech startups that develop and protect such digital assets are more likely to scale operations and build consumer trust, particularly when technologies directly address local market needs (Swartz et al., 2023). Further research shows that innovations like blockchain-powered finance platforms reduce operational risks and transaction costs, enhancing adoption rates in informal markets (Cuthbertson & Furseth, 2022; Nguimkeu & Okou, 2021). However, limited capital for upgrading infrastructure and the high cost of regulatory compliance often undermine firms' ability to sustain these advantages and restrict continuous innovation. Without strategic alignment between technological investment and resource management, startups risk stagnation and competitive decline (Barroso & Laborda, 2022; Namusonge, 2022). Digital transformation remains a critical enabler of operational efficiency and innovation in financial services. Bueno et al. (2024) found that strategic digitization initiatives significantly enhanced banking efficiency, offering insights into how fintech firms might leverage technology for sustainable operations. The following paragraph explores human capital as another critical RBV resource that supports fintech sustainability.

Human Capital and Leadership as Strategic Resources. RBV also emphasizes the strategic value of human capital, particularly when it involves unique expertise that contributes to innovation and organizational adaptability. Skilled professionals in cybersecurity, digital finance, and regulatory strategy are essential for fintech firms navigating Nairobi's evolving financial landscape (Barney, 1991; Fitzgerald & Kihara, 2024). Research suggests that startups with strong leadership and a highly trained workforce exhibit greater operational efficiency and adaptability in response to market volatility (Bansal, 2024; Okiyo & Kihara, 2024; Oriji et al., 2023). Prommer et al. (2020) found that firms investing in leadership development and workforce upskilling achieve better compliance and innovation outcomes, often outperforming competitors with stagnant human resources practices. However, many Nairobi-based fintech firms struggle to retain talent due to high competition, limited professional development opportunities, and compensation mismatches. As Kayser et al. (2023) observed, this talent drain can reduce organizational agility and slow growth. Addressing this challenge requires deliberate investment in team development and leadership pipeline strategies, ensuring human capital remains a core competitive advantage.

Financial Resource Management and Strategic Positioning. Financial capital is a critical resource within the RBV framework, enabling startups to fund innovation, absorb risk, and scale operations. However, many fintech startups in Nairobi face ongoing difficulties accessing long-term funding due to investor hesitancy and underdeveloped venture ecosystems (Ogachi & Zoltan, 2023). According to Disrupt Africa (2023), these funding gaps often force startups to rely on short-term financing or grants, which limits their capacity for strategic investment. Research by Lukovszki et al. (2021) showed that firms with diverse revenue streams, strategic alliances, and strong cost-control practices are more likely to survive the initial 5-year window. Moreover, Assenova and Agarwal (2023) argued that forming partnerships with traditional banks or microfinance institutions allows startups to access external capital while maintaining strategic autonomy. In contrast, firms without stable financial planning structures often experience liquidity crises, operational bottlenecks, or premature closure (OECD SME & Entrepreneurship Papers, 2022; Wangondu & Muathe, 2023). These findings reinforce that financial resource optimization is a support function and a strategic pillar for fintech longevity in emerging markets.

Criticism and Limitations of RBV Theory in Fintech

Theoretical Critique and Need for Integration. While RBV offers valuable insights into how firms can leverage internal resources to gain a competitive edge, several criticisms exist for its narrow internal focus. Critics argue that RBV often overlooks the significant influence of external environmental factors, such as regulatory frameworks, consumer dynamics, and macroeconomic instability, that shape firm performance in volatile sectors like fintech (Nagano, 2020; Nguimkeu & Okou, 2021). Fintech firms in highly regulated ecosystems such as Kenya's must navigate strict data privacy laws, licensing requirements, and compliance costs while simultaneously managing internal operations. Researchers advocate for integrating RBV with dynamic capabilities theory to address these challenges, emphasizing continuous learning and adaptation in response to external change (Teece et al., 1997). Such integration is especially relevant in fintech, where aligning proprietary technologies with shifting consumer expectations and regulatory demands is critical for survival. These critiques highlight the need to view sustainability not solely through internal strengths but through the lens of ecosystem responsiveness.

RBV's Continued Value and Justification of the Integrated Approach. Despite its limitations, RBV remains a powerful analytical framework for understanding how fintech startups in Nairobi create internal value through resource optimization. The theory offers a clear lens to examine how firms leverage digital infrastructure, skilled labor, and financial control to build lasting competitive advantages (Barney, 1991; Fitzgerald & Kihara, 2024). However, as fintech firms increasingly face unpredictable regulatory and economic shocks, RBV alone is insufficient for explaining long-term sustainability outcomes. Scholars such as Lukovszki et al. (2021) suggested that combining RBV with an ecosystem-based approach offers a more comprehensive view of strategic decision-making by integrating internal capabilities and external adaptability. This project adopted a hybrid perspective, using RBV as the core framework while recognizing the importance of flexibility, collaboration, and market responsiveness. This integrated approach allows for a more realistic analysis of fintech sustainability in Nairobi’s complex business landscape.

The next section of this literature review explores key themes in fintech sustainability, including ecosystem support and the role of strategic partnerships, regulatory adaptation and compliance barriers, consumer trust, cybersecurity, digital fraud risks, financial inclusion, and market expansion opportunities. These themes build upon RBV by examining how fintech firms apply resource-based strategies within Nairobi’s evolving financial ecosystem.

Themes Found in the Literature

A combination of ecosystem dynamics, regulatory adaptation, consumer trust, financial inclusion, and market competition shapes the sustainability of fintech startups in Nairobi. While RBV theory explains how internal resources influence long-term survival, external factors such as government policies, industry collaboration, cybersecurity risks, and economic conditions also play a significant role in fintech sustainability (Arshi et al., 2024; Kayser et al., 2023; Mhlanga, 2024). This section examined key external challenges and market trends impacting fintech startups in Nairobi, ensuring a broader understanding of sustainability factors beyond internal capabilities.

Ecosystem Support and the Role of Strategic Partnerships

Fintech sustainability in Nairobi is closely tied to the strength of its innovative ecosystem and the strategic partnerships firms can cultivate. Research shows that collaborative networks involving government agencies, accelerators, investors, and incubators are critical in providing early-stage fintech firms with mentorship, funding, and technical support (Elouaourti & Ibourk, 2024; Nguimkeu & Okou, 2021). Nairobi's fintech hubs, such as iHub and Nailab, have been instrumental in nurturing startups by offering coworking spaces, investor networks, and industry connections (Bunde, 2024; Kherbachi, 2023; Muathe & Otieno, 2023). However, while ecosystem support often fosters early-stage growth, many startups struggle to access sustainable funding in the scale-up phase, limiting long-term operational expansion (Disrupt Africa, 2023; Fitzgerald & Kihara, 2024). Studies further show that fintech firms that partner with multinational banks or integrate into global financial platforms tend to outperform their local counterparts by gaining market stability and credibility (Cuthbertson & Furseth, 2022). These findings underscore the critical role of institutional backing and partnership networks in shaping fintech sustainability trajectories.

Regulatory Adaptation and Compliance Barriers

Regulatory frameworks in Kenya significantly influence fintech performance, often determining whether startups can grow or stagnate. Firms are subject to comprehensive licensing, anti-money laundering regulations, and strict data protection laws enforced by the Central Bank of Kenya and the Kenya Data Protection Act (2019) (Molla & Biru, 2023; Muraguri, 2024). While these regulations aim to protect consumers and ensure financial integrity, their complexity and cost impose significant burdens on emerging fintech businesses (Musamali et al., 2024). Inconsistent policy implementation and frequent amendments create further uncertainty, making it difficult for startups to build stable business models (Swartz et al., 2023; Vijayagopal et al., 2024). Kenya's fintech ecosystem operates within an evolving regulatory framework that aims to balance innovation with consumer protection (Devine & Ndungu, 2022). While these frameworks promote financial stability, they can also hinder growth when overly burdensome or inconsistently applied. Regulatory sandboxes have emerged as a promising solution, offering controlled environments for fintech experimentation while engaging regulators in real time (Bains & Wu, 2023; Markellos et al., 2025). Startups that align their business strategies with evolving policies and maintain open communication with regulators are more likely to navigate compliance successfully. These dynamics highlight the need for a balanced approach that safeguards consumer interests without stifling innovation.

Consumer Trust, Cybersecurity, and Digital Fraud Risks

Consumer trust is fundamental to the success of fintech platforms, particularly in digital markets where companies must build trust without physical interaction. Studies show that cybersecurity lapses, including data breaches and fraud, significantly erode public confidence in digital financial services (Jafri et al., 2024; Swartz et al., 2023). Startups investing in biometric authentication, encryption, and AI-based fraud detection systems strengthen their ability to secure user data and sustain long-term relationships

(Asmar & Tuqan, 2024; Fitzgerald & Kihara, 2024). However, many firms lack the capital or technical capacity to implement these tools effectively, exposing them to reputational damage and financial instability. Additionally, privacy policy transparency and customer service responsiveness are key drivers of trust and user engagement (Aldboush & Ferdous, 2023). To enhance consumer trust in emerging markets, Scholars recommend initiatives such as financial education campaigns and ethical data-use practices (Murinde et al., 2022). These insights reveal that securing consumer confidence involves solid technology, strategic communication, and policy alignment.

Financial Inclusion and Market Expansion Opportunities

Fintech startups in Nairobi promote financial inclusion by offering access to underserved populations through mobile money, credit scoring, and insurance innovations. These services have enabled previously excluded individuals to engage with formal financial systems (Mhlanga, 2024; Omowole et al., 2024). However, targeting low-income users presents profitability challenges due to high onboarding costs, loan default risks, and price control regulations (Khan et al., 2023; Misati et al., 2022). To ensure sustainability, researchers advocate alternative business models such as pay-as-you-go services, subscription pricing, and partnerships with microfinance institutions. Additionally, inadequate infrastructure in rural regions, especially low internet connectivity and smartphone penetration, compounds these challenges (Kodongo, 2024; Ramesh, 2024; Tiony, 2024). Successful firms have responded by deploying agent-based services and developing offline-accessible platforms to improve access and service delivery. These findings suggest that inclusive fintech models must be innovative and context-sensitive to achieve meaningful and sustainable market expansion.

This section has examined key external themes influencing fintech sustainability in Nairobi, including ecosystem support, regulatory adaptation, consumer trust, financial inclusion, and market competition. The analysis highlighted that while fintech firms can leverage internal resources for growth, their long-term viability depends on navigating external challenges effectively. The next section explored the relationship between this project and previous research, identifying gaps in the literature and opportunities for further investigation.

Relationship to Previous Research

Previous research on fintech development in Nairobi has primarily emphasized digital adoption, financial inclusion, and regulatory adaptation. Specifically, studies have indicated that innovations like mobile banking and digital payment platforms have significantly increased access to financial services, especially among previously underserved populations (Mhlanga, 2024; Osabutey & Jackson, 2024). While these insights have advanced understanding of fintech growth and consumer engagement, they do not adequately address how early-stage fintech firms navigate strategic challenges to remain operational beyond the 5-year survival benchmark (Swartz et al., 2023). This gap in the literature is particularly concerning, given the high failure rate among startups in emerging markets, where volatility and resource constraints are common. To address this gap, this project shifted focus from fintech adoption outcomes to internal strategic execution, specifically investigating how fintech leaders in Nairobi leverage innovation, human capital, and financial planning to ensure long-term sustainability. In doing so, I aimed to build on prior work by introducing a resource-based, resilience-focused perspective on fintech success in the African context.

Gaps in Research on Fintech Startup Sustainability

Limited Focus on Long-Term Sustainability. Most existing studies on fintech in emerging markets concentrate on early-stage adoption and innovation diffusion, leaving a gap in understanding long-term sustainability strategies. While research has explored how startups introduce disruptive solutions and expand access to financial services, few empirical analyses examine how these firms survive beyond initial funding rounds and navigate operational challenges over time (Koranteng & You, 2024; Mhlanga, 2024). Specifically, there is limited insight into how fintech leaders overcome financial constraints, regulatory friction, and intense market competition to sustain profitability and growth. In this project, I wanted to fill that void by exploring the internal strategic decisions that enable long-term survival in Nairobi's fintech sector, moving the literature beyond adoption narratives toward resilience and strategic execution.

Lack of Qualitative Insights on Entrepreneurial Experience. While fintech literature has grown, it remains dominated by quantitative studies emphasizing macroeconomic trends and statistical performance metrics. As a result, little is known about the lived experiences of fintech entrepreneurs who must continuously adapt to Nairobi's regulatory and market uncertainties (Kayser et al., 2023; Odeyemi et al., 2024). These studies often fail to capture leaders' refined, day-to-day decisions concerning building partnerships, allocating resources, and fostering innovation. In this research, I addressed that gap by incorporating qualitative insights from startup founders and executives, offering a practical, human-centered perspective that complements existing statistical models and deepens understanding of Nairobian fintech leadership dynamics.

Insufficient Research on Adaptive Regulatory Strategies. Although fintech research documents are challenged by regulatory challenges, few studies explore how firms respond to and adapt within complex policy environments. Prior literature highlights the burdens imposed by licensing laws, compliance protocols, and consumer protection regulations (Molla & Biru, 2023). However, these studies often stop short of examining how firms strategically engage with regulators or reconfigure business models to align with evolving policies. Comparative research indicates that fintech startups across the world that engage in proactive dialogue and leverage regulatory sandboxes experience better outcomes (Kodongo, 2024; Naburuki et al., 2024). In this project, I investigated Nairobi-based startups' specific adaptive compliance strategies, offering insights into how regulatory innovation and agility contribute to sustainability.

Leadership and Talent Development in Fintech Strategy. Although RBV theory identifies human capital as a key driver of competitive advantage, existing fintech studies give insufficient attention to leadership, talent development, and workforce planning. The shortage of cybersecurity, compliance, and risk management professionals in Nairobi's fintech sector has been widely acknowledged (Kayser et al., 2023; Nguimkeu & Okou, 2021), yet there is little analysis of how startups manage these gaps. Questions remain about how firms build leadership pipelines, invest in employee development, and retain skilled professionals in a competitive talent market. In this project, I explored these dimensions, contributing to a more holistic view of sustainability by highlighting the critical role of leadership and workforce strategy in the long-term survival of fintech ventures.

Bridging the Gap: Contribution of This Project

By focusing on strategic resource management, regulatory adaptation, and leadership development, this project contributes a qualitative perspective to an otherwise quantitatively dominated field. Unlike prior research that emphasizes adoption rates or regulatory burdens in isolation, I examined how fintech leaders navigate Nairobi's fast-evolving entrepreneurial environment with a combination of technological innovation, strategic partnerships, and workforce development (Elouaourti & Ibourk, 2024; Kayser et al., 2023). I used the findings to provide actionable guidance for entrepreneurs, policymakers, and investors seeking to strengthen the resilience and scalability of Africa's fintech ecosystems. Additionally, I hope the findings provide practical insights for entrepreneurs, investors, and policymakers, offering actionable recommendations to enhance fintech sustainability beyond the critical 5-year period. By bridging theoretical perspectives with real-world experiences, this research contributes to academic literature and industry best practices.

This section identified key gaps in previous research, highlighting the lack of qualitative insights on fintech sustainability, regulatory adaptation, and human capital strategies. While prior studies extensively cover fintech adoption and market expansion, this research adds value by focusing on long-term survival strategies and the experiences of fintech business leaders in Nairobi. The next section of this project outlined the research methodology, detailing the qualitative approach, participant selection, data collection techniques, and analytical framework used to investigate fintech startup sustainability in Nairobi, Kenya.

Transition

In this section, I comprehensively reviewed professional and academic literature on fintech startup sustainability in Nairobi. I explored key themes, including technological innovation, regulatory adaptation, consumer trust, financial inclusion, and competitive market dynamics, while grounding the project in RBV theory. Additionally, I also identified gaps in prior research, particularly regarding qualitative insights on fintech leaders' strategic approaches to long-term sustainability.

In the next section, Section 3: Research Methodology, I outlined the qualitative research approach, including participant selection, data collection techniques, and data analysis methods. In section 4, I presented the project's findings, a discussion of results, and implications for business practice and positive social change.

Section 3: Research Project Methodology

In this section, I outline the methodology for this research project on sustainability strategies used by fintech startups in Nairobi, Kenya. This section details the qualitative research method and pragmatic inquiry design that was used to explore how fintech leaders develop and apply internal resources to sustain operations beyond 5 years. The methodology section includes a discussion of project ethics, the nature of the project, participant selection, sampling strategy, data collection, data analysis, and measures to ensure trustworthiness. This structured approach ensures transparency, alignment with Walden University's research standards, and relevance to the research problem and purpose.

Project Ethics

Ethical considerations are essential in qualitative research, particularly when exploring lived experiences and organizational strategies. As the primary data collection instrument, I was responsible for designing the interview protocol, conducting interviews, maintaining confidentiality, and ensuring ethical compliance throughout the research process (Yin, 2018). I interviewed fintech business leaders in Nairobi who have sustained operations for over 5 years. There was no prior professional or personal relationship between me and the selected participants or organizations, which helped to minimize bias and undue influence.

Belmont Report principles—respect for persons, beneficence, and justice—guided this project's ethical foundation (U.S. Department of Health and Human Services, 1979). In this project, I maintained respect for people by ensuring voluntary participation and informed consent. Participants received an informed consent form that clearly outlined the project's purpose, procedures, potential risks, benefits, confidentiality measures, and their right to withdraw at any time without penalty.

Participants were free to withdraw at any point during the interview process by informing the researcher verbally or in writing. I did not provide any incentives for participation. I have stored this project's data in a secure, encrypted digital folder with restricted access. I masked participants' identities, company names, and identifying details using pseudonyms to maintain confidentiality and anonymity (Creswell & Poth, 2018). All data, including transcripts and audio files, was securely stored for 5 years in compliance with Walden University's data protection policies, after which I permanently delete them.

I obtained Walden University's Institutional Review Board (IRB) approval before the beginning of data collection, approval number: 06-25-25-1200797. The final project document includes the IRB approval number to validate ethical adherence. I followed Walden's IRB guidelines on participant safety, informed consent, and data privacy (Walden University, 2023). These measures ensured that the ethical protection of participants was adequate and aligned with national and university protocols.

Nature of the Project

In this research, I employed a qualitative method appropriate for understanding how fintech business leaders in Nairobi develop and apply technological and innovative strategies to sustain operations beyond 5 years. Qualitative research enabled the exploration of real-world phenomena through participants lived experiences, making it well-suited for investigating strategic decision-making processes in dynamic industries like fintech (Creswell & Poth, 2018).

The pragmatic inquiry design guided this project. Pragmatism focuses on the practical application of knowledge and the usefulness of findings in addressing real-world problems (Patton, 2015). Pragmatic inquiry emphasized on the generation of practical strategies that fintech leaders in Nairobi can implement to improve startup sustainability, such as approaches to managing regulatory compliance, securing funding, or strengthening innovation capacity, making it ideal for this project's goal of uncovering effective strategies that fintech leaders, investors, and policymakers can apply. A pragmatic approach allows for flexibility in the research process, enabling the integration of various data sources and perspectives to address the applied business problem (Kaushik & Walsh, 2019). This design also aligns with Walden University's emphasis on producing socially relevant research with positive change implications.

Population, Sampling, and Participants

The target population for this project comprised of fintech startup leaders in Nairobi, Kenya, who have sustained their ventures beyond the 5-year threshold. Eligible participants were the founders, co-founders, or senior executives (e.g., chief executive officers, chief operating officers, or chief technology officers) directly involved in strategic decision-making related to technological and innovation strategies. Additionally, participants represented fintech firms registered and operational in Nairobi for at least 5 years at the time of data collection.

To gain access to eligible participants, I used a combination of professional networking platforms such as LinkedIn, direct email outreach to fintech firms, and collaboration with local startup incubators and fintech associations such as the Association of FinTech in Kenya. These channels helped in facilitating initial contact and establishing rapport with qualified individuals. I built working relationships with participants by clearly explaining the purpose of the research, confidentiality protection, and the potential value of the project to both practice and policy. I allowed participants to ask questions during the recruitment phase to ensure informed consent.

In this project, I used a purposeful sampling strategy, specifically criterion sampling, which is appropriate for identifying participants with specific knowledge and experience related to the research problem (Palinkas et al., 2015). The sample included 8 to 12 participants, a number that is consistent with qualitative research standards and sufficient for reaching data saturation (Guest et al., 2006). I achieved data saturation when no new themes, patterns, or insights emerged during the interviews.

This purposeful and bounded sampling approach ensured alignment with the research problem, which focused on exploring the internal strategies experienced fintech leaders use to sustain their businesses in a challenging regulatory and economic environment.

Data Collection Activities

In this qualitative pragmatic inquiry, the primary data collection method was semistructured interviews, and as the researcher, I served as the primary data collection instrument (Yin, 2018). Semistructured interviews were appropriate for gaining deep insights into the strategies fintech leaders use to sustain operations beyond 5 years. This method allowed participants to elaborate on their experiences while enabling the researcher to probe for clarity and detail.

An interview protocol guided the data collection process and ensured consistency across all interviews (Castillo-Montoya, 2016). The protocol included open-ended questions aligned with the research question, a script for obtaining informed consent, and procedures for beginning and concluding the interviews. I also listed the interview protocol in the Appendix.

I collected data through one-on-one virtual interviews via secure video conferencing platforms (e.g., Zoom or Microsoft Teams) to accommodate participant availability and geographical convenience. Each interview lasted 15 to 30 minutes and was audio-recorded with participant consent. Interviews were transcribed verbatim for accuracy and analysis.

To enhance the reliability and validity of the data collection process, I used member checking, a process where participants were allowed to review their interview transcripts for accuracy and provide clarifications if necessary (Birt et al., 2016; Shipman et al., 2023). This practice helped in confirming that participants' responses were correctly interpreted and contributed to the project's credibility.

I included the interview questions and protocol in the Appendix. This structured and transparent data collection approach ensured alignment with qualitative research standards and contributed to the trustworthiness of the project findings.

Interview Questions

To collect in-depth data from fintech startup leaders in Nairobi, I used semistructured interview questions designed to elicit open-ended responses and explore participants' lived experiences. These questions were aligned with the overarching research question: *What technological and innovation strategies do fintech startup leaders in Nairobi use to sustain their businesses beyond 5 years?* Each interview question supported this central research inquiry and aligned with the key themes from the literature and conceptual framework, particularly RBV theory.

The interview questions were as follows:

1. What are the main technological strategies your fintech startup has implemented to improve operational efficiency and customer engagement? (Supports RBV's focus on leveraging valuable technological resources)
2. What specific innovations (in products, services, or processes) have you introduced that helped your business survive past the 5-year mark? (Addresses innovation and strategic capabilities)
3. How do you manage and allocate financial resources to ensure business continuity and scalability? (Relates to financial capital as a critical internal resource)
4. What human resource strategies have you adopted to attract, develop, and retain skilled talent in your organization? (Aligned with the RBV element of human capital)

5. How do you navigate regulatory requirements, and what strategies have helped you comply with policies without hindering innovation? (Connects to regulatory adaptation and RBV flexibility)
6. What roles have partnerships, collaborations, or networks played in supporting your startup's long-term sustainability? (Explores ecosystem support and strategic alliances)
7. What are the specific challenges your business faced in its early years, and the strategies you used to overcome them? (Allows exploration of resilience and adaptive strategies)
8. How do you measure and evaluate your fintech business's long-term success and sustainability? (Links to outcome assessment and strategy effectiveness)

These questions were structured to ensure alignment with the research purpose and RBV framework. They were open-ended to encourage detailed responses and support rigorous qualitative analysis. I included the complete interview protocol and informed consent form in the Appendix.

Data Organization and Analysis Techniques

Effective data organization is critical for ensuring accuracy, transparency, and traceability throughout the research process. In this qualitative project, I organized and managed the collected data using a systematic coding and categorization process. This process involved storing, transcribing, labelling, and managing all participant responses securely and efficiently.

First, I recorded all interviews using an encrypted digital voice recorder. I then transcribed the interviews verbatim using Microsoft Word and stored the audio and transcript files in a password-protected folder on my personal computer, backed up using encrypted cloud storage.

Once transcription was complete, I uploaded the transcripts into NVivo qualitative analysis software to assist with coding and thematic categorization. To maintain participant confidentiality, each transcript was assigned a unique identifier (e.g., Interviewee A, Interviewee B, Interviewee C, etc.). To enhance transparency and ensure consistency, I maintained a researcher's journal that documented reflections, decisions, and analytic memos during the data analysis. This journal included details about emerging codes, category refinements, and preliminary theme development.

To further support the accuracy of the findings, I employed member checking. I asked participants to review summaries of their interview responses to validate the accuracy of the interpretations and offer corrections or clarifications if necessary. This step not only supported the project's credibility but also enhanced trustworthiness. I stored all participant data securely for 5 years, according to Walden University's IRB guidelines, after which I will permanently destroy it.

Reliability and Validity

Qualitative researchers address Reliability and validity through dependability, credibility, transferability, and confirmability (Marshall & Rossman, 2016). These criteria ensure the trustworthiness and rigor of the research process and findings. This project incorporated strategies such as member checking, methodological triangulation, audit trails, and rich descriptions to establish and uphold research quality.

Dependability

Dependability in qualitative research refers to the stability and consistency of the research process over time. To address dependability, I used member checking and transcript reviews. After conducting interviews, I provided participants with summarized interpretations of their responses and asked for feedback to confirm accuracy and resonance with their experiences (Birt et al., 2016). Additionally, I maintained a detailed audit trail of research activities, including notes on data collection procedures, coding processes, and thematic development, so that others can trace the decision-making path throughout the project (Nowell et al., 2017).

Credibility

Credibility refers to confidence in the truth of the findings. This project established credibility through member checking, triangulation, and prolonged engagement. Member checking involved inviting participants to verify the interpretation of their interview data. I also applied methodological triangulation by collecting data through semistructured interviews and comparing responses across participants and organizational contexts (Denzin, 2009; Kullman & Chudyk, 2025). This approach ensured a more accurate representation of the phenomenon under investigation and reduced researcher bias.

Transferability

Transferability involves demonstrating that findings can apply to other contexts. I addressed transferability by providing thick, rich descriptions of the project setting, participants, and findings. These detailed accounts enabled readers to evaluate the applicability of the findings to similar fintech environments or entrepreneurial ecosystems (Lincoln & Guba, 1985). While generalization is not the goal of qualitative inquiry, this strategy allowed future researchers and practitioners to determine the relevance of results to their specific contexts.

Confirmability

Confirmability ensures that participants' experiences shape findings, rather than researcher bias or assumptions. To enhance confirmability, I documented reflexive journal entries throughout the research process to reflect on potential biases and their influence on data interpretation (Shenton, 2004). An audit trail and peer debriefing further supported the transparency and neutrality of the analysis process.

Data Saturation

To ensure data saturation, I continued collecting data until no new themes emerged from participant interviews. I determined Saturation by assessing redundancy in responses across different participants and organizational contexts (Fusch & Ness, 2015). Data saturation ensured that the findings are comprehensive and represent the fintech business leaders' perspectives.

Transition and Summary

This section outlined the qualitative research methodology for this project, which aimed to explore effective technological and innovation strategies used by fintech leaders in Nairobi to sustain their startups beyond the critical 5-year mark. The pragmatic inquiry design and RBV theoretical framework guides the exploration of internal resource management, leadership practices, and strategic innovation.

I discussed key methodological components, including participant selection through purposive sampling, data collection using semistructured interviews, and a detailed explanation of reliability and validity measures. I addressed Credibility, transferability, dependability, and confirmability using member checking, triangulation, audit trails, and rich descriptive data, ensuring research trustworthiness.

In the next section, Section 4: Findings, I presented the project's results. This includes emerging themes from the data analysis, supported by participant quotes, interpretation of findings, and alignment with the existing literature and RBV framework. I also examined how the findings contribute to positive social change and business practice.

Section 4: Findings and Conclusions

Introduction

The purpose of this qualitative pragmatic inquiry was to explore the technological and innovation strategies that fintech startup leaders in Nairobi, Kenya, use to sustain their businesses beyond the critical 5-year mark. RBV theory provided the conceptual framework for this project, focusing on the role of internal resources, technological, financial, human, and relational, in achieving sustainable competitive advantage.

Semistructured interviews were conducted with eight fintech startup leaders (Interviewees A–H), representing a range of fintech business models, including digital lending, payment processing, savings platforms, credit scoring, and financial literacy tools. Data analysis followed a thematic approach, revealing seven overarching themes aligned with the RBV's emphasis on valuable, rare, inimitable, and nonsubstitutable resources. The findings also provide practical and social implications for the fintech ecosystem in Kenya.

Presentation of the Findings

Theme 1: Leveraging Advanced Technological Infrastructure to Drive Efficiency and Engagement

Participants consistently emphasized the importance of strong, scalable technological systems in achieving operational efficiency and customer engagement. From cloud-based infrastructure to AI-powered analytics, these strategies reduced downtime, improved user experience, and supported business scalability.

For example, Interviewee G's AI-powered credit scoring engine leveraged alternative data sources such as mobile usage patterns to extend services to unbanked customers. "Our AI-powered credit scoring engine changed everything; it allowed us to reach people traditional banks wouldn't even consider." Interviewee H's migration to Amazon Web Services improved system uptime and data security: "Moving to AWS gave us the uptime and security we needed to serve customers without interruptions and grow without worrying about server crashes." While Interviewee E's biometric verification system enhanced user trust and reduced fraud, "Biometric verification gave our users confidence. Fraud cases dropped sharply, and onboarding became faster." These technological assets meet RBV's VRIN criteria, offering unique, difficult-to-imitate advantages that underpin sustainable competitive performance.

Across Interviewees A–H, a consistent theme was the adoption of technology-driven strategies to improve efficiency and enhance customer engagement. For example, Interviewee G implemented an AI-powered credit scoring engine that enabled access to underserved customers. At the same time, Interviewee E introduced biometric verification and digital KYC processes that reduced fraud and improved onboarding efficiency. Others, like Interviewee H, emphasized CRM integration and AWS migration to enhance system reliability and customer responsiveness. Collectively, these strategies illustrate that fintech startups in Nairobi strategically deploy digital tools not just for convenience but as core enablers of sustainability beyond the 5-year mark.

These findings confirm and extend prior research. Bueno et al. (2024) highlighted how digitization improves banking operational efficiency, while Harsono and Suprapti

(2024) emphasized digital platforms' role in inclusion but noted high failure rates due to inadequate scaling strategies. This project extends that discourse by showing that Nairobi's fintech leaders go beyond generic digital adoption, they leverage context-specific technologies such as USSD (Interviewee F) for low-connectivity areas and cloud-based solutions (Interviewees C and H) to manage rapid scaling. This localized adaptation adds subtlety to global fintech literature, which often focuses on developed markets. No findings directly disconfirmed the existing literature, but this project highlights underexplored innovations like group-based digital lending, as indicated by Interviewee F, which extend knowledge in fintech sustainability.

RBV by Wernerfelt (1984) and Barney (1991 argued that internal resources, when VRIN, generate sustained competitive advantage. The technological strategies identified in this project fit squarely within RBV. AI credit scoring, biometric verification, and cloud-based scalability represent valuable and rare resources that are difficult for competitors to replicate quickly. By embedding these technologies into their core operations, Nairobi's fintech startups transform them into strategic assets that underpin resilience and long-term competitiveness.

From a practice perspective, these findings demonstrate that adopting strategic technology is not optional but essential for survival in resource-constrained environments. Effective business practice literature highlights technology as a driver of efficiency and customer engagement (Chitavi et al., 2021; Molla & Biru, 2023). This project reinforces that perspective while adding an applied insight into emerging economies, adaptability of technology to local conditions, e.g., USSD for rural clients, automated compliance tools for regulation, determines sustainability. Thus, the findings provide practical guidance for fintech leaders. Investments in flexible, scalable technologies that address customer needs and regulatory pressures are directly tied to long-term viability.

Theme 2: Innovation in Products, Services, and Processes to Maintain Relevance

Survival beyond the 5-year threshold required continuous innovation in product offerings, service models, and operational processes. These innovations were often customer-centric and designed to respond to gaps in existing market solutions. Interviewee F introduced a group savings and lending feature modeled after the traditional chama system, fostering community trust and financial inclusion in rural areas: “We brought the chama model online, it made the app instantly relatable to communities we wanted to serve.” Interviewee C’s flexible digital repayment system empowered clients to manage loan schedules independently: “Allowing customers to reschedule loans directly through the app improved repayment rates and reduced defaults.” While Interviewee E’s fully digital KYC process halved onboarding time and improved accuracy: “Digital KYC cut onboarding time in half, it was a game-changer for both speed and accuracy.” These innovations created distinctive capabilities that competitors could not easily replicate, reinforcing the startups’ market position.

Innovation emerged as a defining factor for sustaining fintech startups beyond the critical 5-year mark. Participants consistently described product, service, and process innovations as central to their survival. For example, Interviewee F introduced a digital group savings and lending model inspired by traditional chamas, allowing informal workers to save and borrow collectively through a mobile platform. Interviewee C developed a flexible digital loan repayment system that let clients reschedule payments in-app, reducing defaults and strengthening customer loyalty. Similarly, Interviewee H launched a subscription-based financial literacy tool, which supported customer empowerment and improved repayment behavior. These examples reflect how innovation is about new features and aligning products and services with the realities of Nairobi's financial landscape.

The findings confirm the broader argument by Kayser et al. (2023) that internal innovation strengthens a firm's ability to withstand market volatility. They also extend Assenova and Agarwal's (2023) observation that fintech studies often emphasize adoption trends without exploring strategic innovation. In this project, participants provided concrete examples of applied innovation that directly enhanced sustainability. Moreover, Mhlanga (2024) argued that African fintech organizations face a high risk of early failure due to weak scaling strategies. The evidence here challenges and extends that claim by showing that firms with customer-focused innovations, like automated onboarding (Interviewee E) and AI-driven lending (Interviewee G), can effectively mitigate scaling challenges. Thus, the project enriches existing literature by demonstrating that localized, customer-centric innovations are essential survival tools in emerging economies.

Within the RBV framework, innovation represents a capability that transforms resources into competitive advantage. Fintech leaders convert basic technological tools into rare and valuable resources by tailoring innovations to customer needs and operational bottlenecks (Sanyaolu et al., 2024). For instance, the chama-inspired digital lending feature mentioned by Interviewee F is difficult for global competitors to imitate because it is culturally embedded and context-specific (Kou & Lu, 2025). Similarly, Interviewee H's financial literacy subscription transformed human capital into a sustainable advantage by building financially literate and loyal customers. These innovations align with RBV's principle that firms achieve long-term survival by strategically deploying resources in ways competitors cannot easily replicate.

From a business practice standpoint, these findings highlight that innovation is not optional but existential for fintech startups. While traditional literature often frames innovation as a growth accelerator, this project reveals it as a survival mechanism in highly volatile environments (Nkatekho, 2024). Practices such as embedding financial literacy in service delivery, automating compliance, and culturally adapting digital services provide actionable strategies for leaders (Judijanto et al., 2025). For investors and policymakers, the findings suggest that supporting innovative startups through incubation hubs and grants is critical for long-term sector resilience. The key lesson for practitioners is that innovation should be context-driven and customer-focused to ensure relevance, trust, and sustainability.

Theme 3: Strategic Financial Resource Management for Scalability and Continuity

Effective financial resource allocation emerged as a critical sustainability strategy. Participants used data-driven budgeting, scenario planning, and disciplined investment policies to balance operational stability with growth opportunities.

Interviewee G employed a hybrid model consisting of a fixed core budget and a flexible innovation fund, enabling experimentation without jeopardizing stability: "We have a fixed budget for essentials, but teams can pitch innovative projects for extra funding." Interviewee E used scenario-based planning to prepare for market volatility: "Scenario-based planning helps us stay prepared whether the economy is booming or slowing down." Interviewee F tied investments to customer acquisition and retention metrics: "Our spending is tied to CAC and LTV, it keeps us disciplined and focused on growth that pays off." Financial management acts as an enabling capability, facilitating the deployment and protection of other strategic resources.

Financial resource management emerged as a central determinant of sustainability for fintech startups in Nairobi. Leaders emphasized that startups were highly vulnerable to market shocks and regulatory costs without careful allocation and long-term planning. For instance, Interviewee G described adopting a hybrid financial model with a stable operating budget and a flexible innovation fund. This structure allowed the firm to maintain stability while experimenting with high-potential projects. Similarly, Interviewee E used scenario-based financial planning, preparing budgets under base, stretch, and stress-tested conditions to navigate volatile markets.

Other participants highlighted practices such as reinvesting profits into high-performing units (Interviewee H) and tracking CAC versus LTV ratios monthly (Interviewee F) to ensure growth aligned with financial sustainability. Interviewee C emphasized performance-based budgeting, requiring teams to justify expenditures with clear ROI metrics. Together, these practices reveal a strong orientation toward disciplined, data-driven financial management as a prerequisite for long-term viability.

These findings confirm Odeyemi et al. (2024), who argued that limited access to long-term capital is a significant barrier for African fintech organizations, forcing startups to rely heavily on internal financial discipline. They also extend Ali et al. (2024), who noted that short-term funding models constrain scalability. In this project, participants demonstrated that creative financial management strategies, such as scenario planning and reinvestment cycles, can compensate for limited access to capital markets.

The findings also disconfirm aspects of Harsono and Suprapti (2024), who suggested that fintech startups primarily fail due to technology gaps. Evidence shows that even technologically capable startups can collapse without strong financial planning. Thus, financial management is not secondary but equally foundational to survival.

RBV views financial capital as a resource that gains strategic value only when deployed effectively. The practices described by participants—performance-based budgeting by Interviewee C, reinvestment cycles by Interviewee H, and scenario-based financial planning by Interviewee E—illustrate how ordinary resources are transformed into strategic capabilities. By embedding financial discipline into organizational culture, these startups turned capital into a rare and inimitable competency that supported resilience. In RBV terms, disciplined financial management functions as a dynamic capability that enables firms to continuously adapt resources for sustained competitive advantage.

From a business practice perspective, the findings emphasize that financial discipline and adaptability are as critical as innovation and technology. Startups that survived beyond 5 years consistently demonstrated financial practices that combined prudence with flexibility. For entrepreneurs, the lesson is clear: scaling is only possible when financial strategies are tied directly to measurable performance outcomes. For policymakers and investors, the implication is that capacity-building programs should include financial planning and resource allocation training alongside innovation support. Therefore, effective business practice in Nairobi's fintech sector requires leaders to balance growth ambitions with financial sustainability frameworks that anticipate shocks, align investments with ROI, and ensure continuous reinvestment in core strengths.

Theme 4: Human Capital Development as a Competitive Advantage

The ability to attract, develop, and retain skilled talent was central to each startup's strategy. Human capital was cultivated through structured training, flexible work arrangements, and incentive programs.

Interviewee E created an internal academy to build fintech skills among junior staff: "We built an internal academy, so our people grow with the company, it's an investment in loyalty and skills." Interviewee F conducted quarterly culture audits to maintain employee engagement*:* "Culture audits help us spot issues before they become problems, keeping our team engaged." Interviewee H offered stock options and continuous learning opportunities via a learning management system: "Stock options make employees feel like owners, which changes how they approach their work." Human capital is one of the most inimitable internal resources, with a direct impact on innovation and service quality.

A recurring theme across all participants was that skilled and motivated human capital is the backbone of long-term sustainability in fintech startups. Interviewees consistently emphasized that technology alone was insufficient without a capable and committed workforce to implement and manage innovations. For example, Interviewee F described creating a flat organizational structure and quarterly culture audits, which fostered openness, collaboration, and alignment with company values. Interviewee H implemented remote work flexibility, stock options, and a learning management system (LMS), ensuring employees had financial incentives and opportunities for continuous professional growth (Leso et al., 2022). Similarly, Interviewee E established an internal academy for staff training in fintech tools and innovative thinking, paired with mentorship programs.

Interviewee C took a different approach by hiring passionate graduates when senior talent was unavailable, then investing heavily in mentorship and development programs. This strategy built loyalty and helped shape a culture of innovation from the ground up. Collectively, these practices show that retaining talent requires a balance of competitive benefits, professional development, workplace culture, and growth opportunities.

These findings confirm Mohamad Mazlan and Jambulingam (2023), who argued that talent retention is the biggest challenge for fintech startups in Africa due to competition from established tech companies and global firms. The strategies in this project, particularly internal training academies and stock option incentives, directly address those challenges. They also extend on Opare Darko et al. (2024), who highlighted the role of workplace culture in employee retention. While their work showed that culture improves retention, this project demonstrates that fintech leaders in Nairobi institutionalize culture through systematic practices, e.g., culture audits, mentorship, and feedback systems that make retention measurable and proactive rather than reactive.

The findings partly disconfirm Rocha and Grilli (2023), who suggested that startups primarily rely on external hiring to acquire skilled talent. Instead, evidence here shows that some leaders, e.g., Interviewee C, develop their workforce internally, building competitive advantage by growing talent pipelines in-house.

Within the RBV framework, human capital is a critical internal resource that must be VRIN. The practices described, such as equity incentives by Interviewee H, internal academies by Interviewee E, and mentorship-driven recruitment by Interviewee C, transform human capital from a basic necessity into a strategic resource. These practices are difficult for competitors to imitate because they are deeply embedded in organizational culture.

Thus, talent development in these fintech startups operates as a dynamic capability, allowing organizations to adapt, innovate, and maintain a competitive edge over time. RBV underscores that financial or technological resources alone cannot sustain an advantage; human capital provides the adaptive capacity that ensures long-term survival.

For business leaders, these findings highlight that human capital strategies must be intentional and embedded in organizational systems. Nairobi fintech leaders showed that competitive salaries alone are insufficient; practices like equity incentives, internal training platforms, and mentorship programs help foster loyalty and reduce turnover (Soegiarto et al., 2024). Effective business practice in this context means treating employees as strategic partners rather than replaceable labor. Startups that integrate development, culture, and incentives into their human resources models are more likely to sustain growth (Arokiasamy et al., 2023). For policymakers and investors, these insights suggest the need for ecosystem-level support for fintech workforce development, including partnerships with universities, coding academies, and professional associations to strengthen local talent pipelines.

Theme 5: Adaptive Regulatory Compliance Without Stifling Innovation

Participants identified regulatory compliance as a challenge and a catalyst for process improvement. Those who integrated compliance into the design phase or leveraged regulatory technology tools adapted more efficiently to policy changes.

Interviewee C embedded compliance checks into product planning, preventing costly redesigns: “By involving legal advisors from the start, we avoid compliance surprises down the road.” Interviewee E’s regulatory technology (regtech) solution monitored policy changes in real time: “Our regtech system alerts us to changes instantly so that we can adapt without delays.” Interviewee G pivoted to a revenue-sharing model when digital lending caps were introduced: “When lending caps hit, we pivoted to revenue-sharing; it kept us compliant and competitive.” Agility in regulatory compliance represents a dynamic capability, enabling startups to maintain compliance and innovation.

Participants consistently described navigating Kenya's complex and evolving regulatory landscape as one of the most persistent challenges fintech startups face. Leaders highlighted that noncompliance could threaten the very existence of a startup, yet overly rigid compliance approaches could stifle innovation.

Interviewee E explained how their startup adopted regtech solutions that provided real-time updates on regulatory changes, automatically alerting relevant teams. This minimized compliance errors and allowed the firm to remain innovative while meeting legal obligations. Interviewee H emphasized maintaining open communication with regulators, noting that their transparency and detailed documentation led regulators to use their startup as a case study for ethical fintech practices.

Interviewee C integrated compliance directly into the product development process by involving legal advisors at the planning stage, reducing costly redesigns and ensuring that innovation and compliance moved together. Similarly, Interviewee G described the necessity of business model flexibility. When loan caps were introduced, their team pivoted to a revenue-sharing model that complied with new laws without sacrificing profitability (Bartlett et al., 2023). Collectively, these findings demonstrate that successful fintech leaders treat compliance as a strategic process, not just a legal necessity, blending adaptability, proactive monitoring, and relationship-building with regulators.

These findings confirm Musamali et al. (2024) and Ndolo et al. (2025), who argued that fintech startups in Kenya operate in a constantly shifting legal environment where compliance can determine survival. The integration of regtech solutions, as described by Interviewee E, illustrates a technological response that supports Ndolo et al.'s (2025) view. The findings also extend the work of Kato (2024), who highlighted that trust between startups and regulators is essential for long-term sustainability. This project shows that transparency and proactive engagement (Interviewee H's strategy) can go further, positioning startups as role models within the regulatory system.

At the same time, these findings partly disconfirm Ayileka (2021), who suggested that stringent regulation uniformly limits innovation in the fintech sector. Instead, this project shows that adaptable firms can turn regulatory challenges into opportunities, such as G's pivot to a revenue-sharing model, which ensured compliance and opened new revenue streams.

RBV emphasizes the importance of internal capabilities in sustaining competitive advantage. Regulatory adaptability emerges as a dynamic capability: the ability to sense, respond to, and integrate regulatory shifts into the business model without undermining innovation. By embedding compliance into processes by Interviewee C, leveraging advanced tools like regtech by Interviewee E, and cultivating strong regulator relationships by Interviewee H, fintech startups transform regulatory navigation into a valuable and rare capability. Because these practices are embedded within organizational culture and systems, they are difficult for competitors to replicate, making them a strategic asset under the RBV framework.

From a practical standpoint, these findings highlight that compliance should not be reactive but strategically integrated into the organizational model. Leaders who adopt regtech solutions, involve legal advisors early, or cultivate trust with regulators, create a buffer against disruption while safeguarding innovation.

For business leaders, this means developing compliance as a core competency, ensuring that regulatory changes are met with agility rather than resistance. For policymakers, these findings suggest the value of collaborative regulatory frameworks, where regulators work alongside innovators to co-create fair, adaptive policies. Such approaches could accelerate fintech growth while ensuring consumer protection.

Theme 6: Leveraging Strategic Partnerships and Networks for Growth

Forming alliances with industry actors, government bodies, and academic institutions emerged as a key sustainability enabler. Partnerships provided access to credibility, new markets, and skilled labor.

Interviewee H's partnership with a government-backed innovation hub enhanced legitimacy and visibility: "Partnering with the innovation hub gave us credibility and opened funding opportunities." Interviewee G expanded cross-border services by partnering with international remittance companies*:* "Our agreement with remittance companies helped us enter new markets fast." Interviewee F built a recruitment pipeline through collaboration with a local university: "The university partnership has been our best recruitment tool; interns often become top performers." Strategic alliances extend the reach and utility of internal resources, magnifying competitive advantage.

Partnerships and networks emerged as a critical enabler of sustainability for fintech startups in Nairobi. Through the interviews, leaders consistently highlighted that collaborations provided access to resources, legitimacy, and market expansion opportunities that would have been difficult to achieve independently.

Interviewee H explained how, early on, partnering with a government-backed innovation hub helped the startup gain credibility. This partnership increased visibility and opened doors to funding opportunities and new customer bases. Interviewee G shared that forming MOUs with international remittance companies allowed their startup to expand cross-border services, ensuring competitiveness in the regional market.

For Interviewee E, collaborating with a cybersecurity firm was instrumental in enhancing user trust and meeting regulatory requirements efficiently. Meanwhile, Interviewee C highlighted that a partnership with a microfinance institution created a mutually beneficial arrangement, where the startup provided advanced credit scoring tools while receiving customer referrals in return (Xu et al., 2025). These experiences demonstrate that partnerships function as a strategic resource, providing tangible assets like customer pipelines and funding and intangible benefits like trust, legitimacy, and knowledge sharing.

These findings confirm the work of Tiony and Yin (2024), who argued that collaborations between fintech startups and established institutions are essential for overcoming barriers such as limited legitimacy and resource scarcity. The government-backed partnership described by H directly validates this perspective. The findings also extend Reyes Bautista et al. (2025), who noted that networks provide startups with social capital but did not deeply explore partnerships with global players. This project adds evidence that international collaborations, such as Interviewee G's remittance partnerships, can broaden markets and mitigate local saturation risks.

At the same time, these findings challenge the assumption by Taylor et al. (2023) that partnerships often create dependency that hinders innovation. In contrast, this project shows that carefully selected partnerships like Interviewee E's cybersecurity collaboration or Interviewee C's microfinance arrangement can strengthen core competencies and drive innovation, rather than limit it.

RBV emphasizes that firms gain sustainable competitive advantage when they control resources that are VRIN. Partnerships extend the RBV framework by showing how external resources can be strategically leveraged as if they were internal. For instance, access to a cybersecurity expertise (Interviewee E) or an international payment networks (Interviewee G) becomes embedded within the firm's operations, transforming into a semi-internal capability. Because such partnerships are built on trust, long-term contracts, and relational capital, they are difficult for competitors to imitate, thus enhancing sustainability in line with RBV principles.

From a business practice perspective, these findings emphasize the importance of ecosystem thinking. No fintech startup operates in isolation; building long-term relationships with regulators, corporates, and global players is essential for scaling and survival. For practitioners, this means prioritizing strategic alliances that align with long-term goals rather than opportunistic short-term deals. For example, startups seeking legitimacy should consider partnerships with government or regulatory-backed institutions, while those aiming for expansion may look toward cross-border or international collaborations. For policymakers and ecosystem builders, fostering innovation hubs, collaborative forums, and cross-industry partnerships could accelerate fintech development while reducing barriers to sustainability.

Theme 7: Building Resilience Through Early Challenge Mitigation

Overcoming early-stage challenges was critical for long-term survival. Participants described strategies for dealing with talent shortages, technical limitations, and compliance complexities.

Interviewee C addressed the scarcity of experienced tech talent by training passionate graduates in-house: “We decided to train graduates ourselves rather than wait for experienced hires; it paid off.” Interviewee E navigated unclear regulations by hiring a legal consultant and creating a compliance unit: “Hiring a legal consultant early saved us from costly mistakes later.” Interviewee F solved API integration problems by redesigning the backend architecture: “Redesigning our backend gave us the flexibility to integrate with multiple banking systems.” Resilience and problem-solving are adaptive capabilities that strengthen an organization’s ability to withstand future uncertainties.

The interviews revealed that the early years of operation were the most critical for fintech startups, marked by struggles around customer acquisition, regulatory uncertainty, talent recruitment, and technical limitations. Yet, the leaders demonstrated adaptability and resilience by developing targeted strategies to overcome these barriers.

Interviewee H noted that low visibility and trust were major roadblocks initially. To overcome this, the startup introduced a referral program and collaborated with influencers in the digital finance space, which boosted signups by over 60% within 3 months. Similarly, Interviewee F described how API integration challenges with a banking partner nearly halted operation. However, bringing in a systems integration expert and redesigning the backend architecture created the flexibility needed to grow.

Talent acquisition also emerged as a recurring challenge. Interviewee C recalled that experienced professionals preferred established companies, forcing the startup to recruit fresh graduates and build internal training and mentorship programs. This strategy not only addressed immediate staffing needs but also fostered long-term loyalty. Interviewee E faced regulatory ambiguity early on and overcame it by hiring a legal consultant and setting up an internal compliance unit to reduce risk and provide structure. Overall, these strategies reflect a pattern of resource improvisation, learning agility, and proactive problem-solving as key drivers of survival.

These findings confirm prior research by Idris (2024), who highlighted that early-stage barriers like financing, compliance, and market adoption often dictate startup survival. The leaders' experiences resonate with this, particularly in terms of regulatory uncertainty and customer trust issues. They also extend Bethlendi et al. (2025), who found that startups often fail to adapt due to rigid models. This project shows that adaptive behaviors, like Interviewee H's use of referral programs or Interviewee C's graduate recruitment strategy, directly enable long-term sustainability.

At the same time, the findings disconfirm the argument by Musamali et al. (2024) that regulatory hurdles are insurmountable in the Kenyan fintech landscape. Instead, startups demonstrated that through proactive compliance mechanisms, they could survive and build credibility with regulators.

RBV emphasizes leveraging internal capabilities to build an advantage. In this context, the ability of fintech leaders to convert external constraints into internal learning opportunities aligns with RBV. For example, Interviewee C's graduate mentorship approach transformed a recruitment challenge into a unique internal capability, cultivating loyalty and building specialized human capital. Similarly, Interviewee E's compliance unit converted regulatory hurdles into a structured organizational resource, enhancing resilience. These examples illustrate that resilience becomes a valuable, rare, inimitable, and nonsubstitutable resource, allowing firms to thrive in uncertain environments.

The findings underscore that for business leaders, early challenges are inevitable but surmountable when approached strategically. Effective practices include leveraging creative marketing strategies like referral programs and influencer engagement to address trust deficits (Al-Fattal, 2025). Turning to specialized expertise, legal or technical consultants, to quickly resolve capability gaps and build internal resilience structures like training academies and compliance units that transform external pressures into long-term advantages.

For practitioners, these insights highlight the importance of adaptability and resource improvisation during the formative years. For policymakers and incubators, the findings stress the need to provide support frameworks such as mentorship networks, regulatory guidance programs, and technical infrastructure that help startups bridge the early stage "valley of death."

Summary of Findings

The findings highlight that Nairobi's successful fintech startups sustain operations beyond 5 years by cultivating unique technological, human, financial, and relational resources aligned with RBV principles. These resources are supported by adaptive strategies in innovation, compliance, partnerships, and resilience. Collectively, these strategies enable startups to survive and grow in a competitive and rapidly evolving environment.

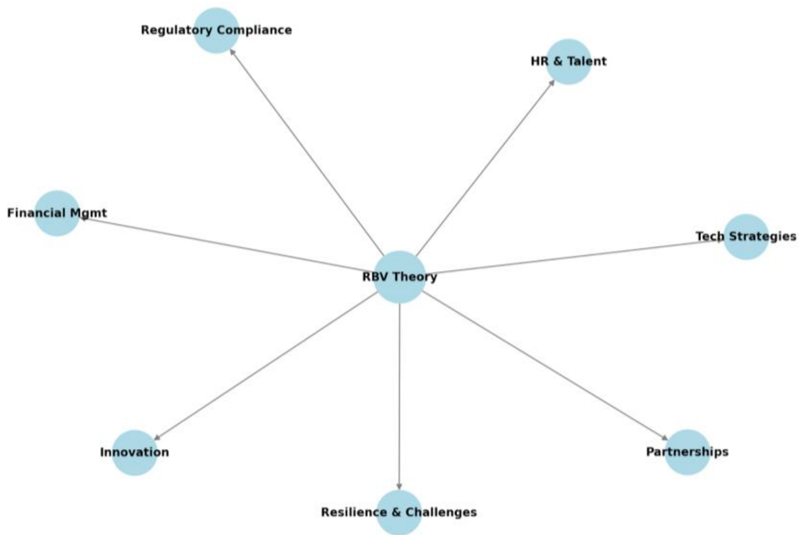
Table 2

Themes, Subthemes, and Supporting Participant Evidence (Interviewees A–H)

Theme	Subthemes	Supporting participant evidence (A–H)
1. Leveraging advanced technological infrastructure to drive efficiency and engagement	- Cloud-based infrastructure - AI-powered analytics - Enhanced security systems - Accessibility innovations	“Migrating to AWS improved uptime and security.” (H) “Our AI-powered credit scoring engine expanded financial access.” (G) “Biometric verification cut fraud and boosted trust.” (E) “We built multilayer authentication from the start.” (A) “Our chatbot improved service response times.” (D) “Lightweight apps and USSD access reached rural users.” (F) “API integration enabled real-time transactions.” (C) “Predictive analytics improved customer targeting.” (B)
2. Innovation in products, services, and processes to maintain relevance	- Community-based financial models - Customer self-service systems - Digital onboarding - Subscription-based services	“Digitizing the chama model built instant trust.” (F) “Loan rescheduling through the app improved repayments.” (C) “Digital KYC cut onboarding time by 50%+.” (E) “Our subscription-based literacy tool improved repayment behavior.” (H) “Peer-to-peer lending with AI reduced default risk.” (G) “We launched digital wallets for informal workers.” (A) “Mobile-first payments appealed to young professionals.” (B) “Automation halved our service delivery time.” (D)
3. Strategic financial resource management for scalability and continuity	- Hybrid budgeting models - Scenario-based planning - Metrics-driven investments - Phased spending models	“We maintain a fixed budget but fund team innovations.” (G) “Scenario-based planning kept us ready for shifts.” (E) “Spending tied to CAC and LTV keeps us disciplined.” (F) “Performance-based budgeting focused us on ROI.” (C) “We reinvest profits in top-performing services.” (H) “Bootstrapping early made us lean and efficient.” (A) “Crowdfunding provided risk-free early capital.” (B) “Monthly budget audits ensured accountability.” (D)
4. Human capital development as a competitive advantage	- Internal academies - Culture audits - Incentives & recognition - Talent pipeline strategies	“We built an internal academy to train talent.” (E) “Quarterly culture audits improved engagement.” (F) “Stock options turned employees into owners.” (H) “Gamification boosted morale and retention.” (G) “We trained graduates internally to build culture.” (C) “Mentorship programs nurtured young talent.” (A) “Flexible work attracted younger professionals.” (B) “Feedback culture kept employees engaged.” (D)
5. Adaptive regulatory compliance without stifling innovation	- Compliance in product design - Regtech adoption - Agile business models - Transparent regulator engagement	“Legal advisors join product design meetings.” (C) “Regtech alerts us to policy updates instantly.” (E) “We pivoted to revenue-sharing when lending caps hit.” (G) “We built open communication with regulators.” (H) “Industry associations clarified licensing rules.” (F) “Hiring a legal consultant reduced compliance risks.” (A) “We benchmarked global fintech compliance practices.” (B) “Compliance audits ensured ongoing alignment.” (D)
6. Leveraging strategic partnerships and networks for growth	- Government-backed partnerships - International collaborations - Academic alliances - Ecosystem networks	“An innovation hub gave us credibility.” (H) “Remittance MOUs opened new markets.” (G) “A university pipeline supplied skilled interns.” (F) “Cybersecurity partners improved trust.” (E) “Microfinance partnerships expanded our reach.” (C) “Telecom collaborations boosted adoption.” (A) “Global accelerators gave us visibility.” (B) “Regional networks enabled cross-border payments.” (D)
7. Building resilience through early challenge mitigation	- Talent pipeline development - Regulatory clarity initiatives - Technical system redesign - Customer acquisition solutions	“Training graduates solved hiring challenges.” (C) “Legal consultants clarified regulatory issues.” (E) “Backend redesign enabled integrations.” (F) “Cloud migration fixed scaling issues.” (G) “Referral programs boosted customer growth.” (H) “Community trust-building overcame adoption barriers.” (A) “Funding crunch resilience came from hybrid models.” (B) “Chatbots reduced early service bottlenecks.” (D)

Figure 1

Conceptual Link Between Themes and RBV Theory



Business Contributions and Recommendations for Professional Practice

The findings of this project make several contributions to professional business practice by highlighting effective technological and innovation strategies that fintech startup leaders in Nairobi, Kenya, have employed to sustain operations beyond the critical 5-year period. For business leaders, the evidence underscores the centrality of technological infrastructure and innovation as strategic assets. Participants emphasized that cloud-based systems, AI applications, and enhanced digital security not only improve operational efficiency but also expand customer access and trust (Interviewees E, G, H). This confirms recent scholarship indicating that fintech firms that prioritize technological resilience and trust-building mechanisms achieve greater customer retention and long-term viability (Bueno et al., 2024). Therefore, organizational leaders should consider targeted investments in adaptive technology platforms and security protocols as a foundation for scalability and customer engagement.

The project also contributes to knowledge about innovation in service models. Leaders highlighted community-based financial services, such as digitalized chama models and self-service repayment tools (Interviewees C, F), as vital for customer loyalty and financial sustainability. This extends existing research by demonstrating how culturally embedded practices, when digitized, generate long-term user trust and product relevance (Van Cooten & Blythin-Hammond, 2017). Business leaders should recognize the strategic advantage of aligning innovations with local socioeconomic contexts.

Findings further emphasize the role of human capital as a source of sustainable advantage. Internal academies, mentorship, flexible work arrangements, and culture audits (Interviewees E, F, H) allowed startups to cultivate loyalty and adaptability within their workforce. These insights align with RBV theory by confirming that firms that strategically invest in unique and inimitable human resources create sustained competitive advantages (Barney, 1991). Business practitioners are encouraged to view workforce development not as a cost, but as a long-term strategic investment.

Finally, the evidence revealed that adaptive compliance strategies and ecosystem partnerships are critical to sustainability. Proactive engagement with regulators, adoption of regtech, and collaborations with universities, hubs, and remittance firms (Interviewees C, E, G, H) illustrate the importance of agility and network leverage. These results extend current knowledge by demonstrating how compliance, often considered a constraint, can become a driver of innovation and legitimacy when integrated into business design.

Recommendation for practice: Business leaders in the fintech sector should (a) invest in flexible and secure technological platforms, (b) develop customer-centered innovations rooted in cultural and community practices, (c) build structured human capital strategies that include internal training and retention mechanisms, (d) adopt adaptive compliance models that integrate legal and regulatory considerations from the design stage, and (e) actively pursue ecosystem partnerships that extend resources and legitimacy. For the research–scholar community, these findings confirm and extend RBV by illustrating how technology, innovation, human capital, and partnerships serve as valuable, rare, inimitable, and nonsubstitutable resources in emerging market contexts.

Implications for Social Change

The implications of this project extend beyond organizational performance to broader social and economic transformation. The evidence suggests that the sustainability of fintech startups in Nairobi directly contributes to advancing financial inclusion, poverty reduction, and economic empowerment in Kenya and potentially across Africa. At the individual level, innovations such as group-based digital savings (Interviewee F) and financial literacy tools (Interviewee H) empower users with greater control over their finances, improving financial literacy, repayment behavior, and long-term resilience. These outcomes are consistent with recent findings that fintech innovations increase economic participation and improve household financial well-being (Ahmed, 2025).

At the community level, strategies such as integrating culturally embedded financial models (Interviewee F) and expanding underserved customer access (Interviewee G) demonstrate how fintech startups foster inclusive growth by reaching populations excluded from traditional banking. This aligns with global social change goals, such as the United Nations Sustainable Development Goal (SDG) 8 (Decent Work and Economic Growth) and SDG 9 (Industry, Innovation, and Infrastructure) (UNDP, 2015).

At the organizational and institutional level, the project's findings show that fintech startups that survive beyond 5 years contribute to employment creation, capacity building, and regulatory innovation. Human resource strategies (Interviewees E, F, H) not only retain skilled employees but also create new knowledge ecosystems within the industry. Furthermore, transparent engagement with regulators (Interviewees C, E, H) contributes to building stronger institutional trust between startups and government, ultimately strengthening the financial ecosystem.

At the societal level, sustained fintech startups play a pivotal role in shaping a more equitable financial system. By leveraging technology to reach underserved markets, startups support economic mobility, empower marginalized groups, and reduce reliance on exploitative informal systems. In this way, the findings support the argument that sustainable fintech innovations act as catalysts for structural transformation in developing economies (Bueno et al., 2024).

Recommendations for Further Research

While this project achieved data saturation and provided meaningful insights into strategies for sustaining fintech startups in Nairobi, several limitations open opportunities for future research. First, this project was limited to Nairobi-based fintech startups that had survived beyond 5 years. Future research could adopt a comparative multiregional approach, examining whether the strategies identified here apply across different African fintech hubs such as Lagos, Cape Town, or Accra. Such comparative studies would deepen understanding of contextual influences on sustainability. Second, the project employed a qualitative, pragmatic inquiry design with a small sample of eight leaders. Although this was sufficient for data saturation, future research could use quantitative or mixed methods approaches to test the statistical generalizability of findings, particularly regarding the impact of specific strategies such as regtech adoption or human capital development on business survival rates.

Third, this project was based on self-reported interview data, which may reflect leader perceptions. Future research should triangulate with secondary data such as company performance reports, customer satisfaction surveys, or regulatory compliance audits to validate findings. Finally, future research could explore the longitudinal impact of fintech innovations by tracking startups over a 10–15-year period to assess whether strategies identified here remain effective or evolve over time in response to new technological and regulatory dynamics.

Conclusion

The purpose of this project was to explore the technological and innovation strategies that fintech startup leaders in Nairobi, Kenya, use to sustain their businesses beyond 5 years. Guided by the RBV framework, a pragmatic inquiry design was employed, and semistructured interviews were conducted with eight fintech startup leaders.

The findings revealed seven interconnected themes: (a) leveraging advanced technological infrastructure, (b) innovating products, services, and processes, (c) strategic financial resource management, (d) human capital development, (e) adaptive regulatory compliance, (f) leveraging partnerships and networks, and (g) building resilience through early challenge mitigation. Collectively, these themes demonstrate that fintech startups that strategically deploy valuable, rare, inimitable, and nonsubstitutable resources, such as secure digital platforms, innovative service models, skilled human capital, and adaptive networks, are better positioned for long-term sustainability.

This project contributes to professional practice by offering actionable recommendations for fintech leaders to strengthen technology adoption, align innovations with cultural contexts, invest in human resources, and build adaptive compliance strategies. It contributes to scholarships by extending RBV to the context of fintech startups in emerging markets and demonstrating how resource orchestration leads to sustainable competitive advantage. The implications for social change highlight how sustainable fintech startups advance financial inclusion, empower underserved populations, and contribute to economic development in Kenya and beyond. In conclusion, sustaining fintech startups beyond 5 years requires a synergistic strategy that integrates technology, innovation, human capital, compliance, and partnerships. By adopting these strategies, fintech leaders not only secure business continuity but also contribute to broader social transformation.

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Appendix: Interview Protocol

Interview Protocol for Exploring Sustainability Strategies in Nairobi's Fintech Startups

Opening Script:

Thank you for agreeing to participate in this interview. My name is Esay Kollie, and I am a doctoral student at Walden University. This project explores the technological and innovative strategies that help fintech startups in Nairobi sustain their operations beyond the first 5 years. Your participation is entirely voluntary, and your identity remains confidential.

Interview Questions:

1. Kindly describe your role in the fintech startup you lead or have led.

2. What are the main technological strategies your fintech startup has implemented to improve operational efficiency and customer engagement?

3. How do you manage and allocate financial resources to ensure business continuity and scalability?

4. What specific innovations (in products, services, or processes) have you introduced that helped your business survive past the 5-year mark?

5. What human resource strategies have you adopted to attract, develop, and retain skilled talent in your organization?

6. How do you navigate regulatory requirements, and what strategies have helped you comply with policies without hindering innovation?

7. What role have partnerships, collaborations, or networks played in supporting your startup’s long-term sustainability?

8. What are the specific challenges your business faced in its early years, and the strategies you used to overcome them?

9. How do you measure and evaluate your fintech business’s long-term success and sustainability?

Closing Script:

Thank you for your time and insights. I will be in touch for a transcript review (member checking). Please feel free to reach out if you have any questions about the project.