

STARTUP PERFORMANCE IN NIGERIA



Entrepreneurial Management Practices and The Performance of Start-Up Firms in Abeokuta, Ogun State, Nigeria

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บทคัดย่อ

บริษัทสตาร์ทอัพในประเทศกำลังพัฒนามักเผชิญความท้าทายในการบรรลุผลการดำเนินงานอย่างยั่งยืน อันเนื่องมาจากข้อจำกัดด้านทรัพยากร ความไม่แน่นอนของตลาด และช่องว่างด้านความสามารถทางการบริหารจัดการ ในระบบนิเวศการประกอบการของไนจีเรีย อัตราการล้มเหลวของสตาร์ทอัพยังอยู่ในระดับสูง โดยการจัดการที่ไม่เพียงพอถูกระบุว่าเป็นปัจจัยสำคัญประการหนึ่ง

การศึกษานี้มีวัตถุประสงค์เพื่อศึกษาความสัมพันธ์ระหว่างแนวปฏิบัติการจัดการเชิงผู้ประกอบการ ได้แก่ การจัดการทรัพยากรบุคคล การจัดการความคิดสร้างสรรค์และนวัตกรรม และการจัดการความเสี่ยง กับผลการดำเนินงานของสตาร์ทอัพ ตลอดจนวิเคราะห์อิทธิพลของแนวปฏิบัติดังกล่าวต่อผลการดำเนินงานของบริษัทสตาร์ทอัพในเขตภูมิรัฐศาสตร์ตะวันตกเฉียงใต้ของไนจีเรีย โดยมุ่งเน้นกิจการในเมืองอาเบโอคูตา รัฐโอกุน ประชากรของการศึกษาประกอบด้วยผู้ประกอบการสตาร์ทอัพจำนวน 250 ราย และกำหนดขนาดตัวอย่างจำนวน 153 ราย โดยใช้สูตรของ Yamane (1967) เครื่องมือที่ใช้ในการเก็บรวบรวมข้อมูลคือแบบสอบถามที่พัฒนาจากมาตรวัดที่ผ่านการตรวจสอบความเที่ยงตรงจากงานวิจัยก่อนหน้า วิเคราะห์ข้อมูลด้วยสถิติเชิงพรรณนาและสถิติเชิงอนุมาน ได้แก่ การวิเคราะห์สหสัมพันธ์และการถดถอยพหุเชิงลำดับขั้น โดยใช้โปรแกรม SPSS เวอร์ชัน 27 ทั้งนี้ได้กำหนดภาคอุตสาหกรรมและระยะเวลาการดำเนินธุรกิจเป็นตัวแปรควบคุม

ผลการวิจัยพบว่า แนวปฏิบัติการจัดการเชิงผู้ประกอบการมีอิทธิพลอย่างมีนัยสำคัญต่อผลการดำเนินงานของสตาร์ทอัพ ได้แก่ การจัดการทรัพยากรบุคคล ($B = 0.536$, $\beta = 0.252$, $p < 0.001$) การจัดการความคิดสร้างสรรค์และนวัตกรรม ($B = 0.628$, $\beta = 0.321$, $p < 0.001$) และการจัดการความเสี่ยง ($B = 1.300$, $\beta = 0.592$, $p < 0.001$) แบบจำลองการถดถอยเชิงลำดับขั้นสามารถอธิบายความแปรปรวนของผลการดำเนินงานได้ร้อยละ 64.3 (Adjusted $R^2 = .614$) โดยการจัดการความเสี่ยงเป็น

ตัวทำนายที่มีอิทธิพลสูงสุด อธิบายความแปรปรวนได้ร้อยละ 46.6 นอกจากนี้ ระยะเวลาการดำเนินธุรกิจเป็นตัวแปรควบคุมที่มีนัยสำคัญทางสถิติ ($\beta = .142, p = .024$) และสตาร์ทอัพในภาค ICT/เทคโนโลยีมีผลการดำเนินงานสูงกว่าภาคอื่น

ผลการศึกษาชี้ให้เห็นถึงความสำคัญของแนวปฏิบัติด้านการจัดการในการส่งเสริมความสำเร็จของสตาร์ทอัพในระบบนิเวศการประกอบการของไนจีเรีย และให้ข้อเสนอแนะเชิงนโยบายสำหรับผู้ประกอบการและผู้กำหนดนโยบาย

คำสำคัญ: การจัดการทางการเป็นผู้ประกอบการ ประสิทธิภาพของบริษัทสตาร์ทอัพ การจัดการทรัพยากรบุคคล ขวัญกำลังใจและการมีส่วนร่วมของทีม การจัดการความคิดสร้างสรรค์และนวัตกรรม ภาคอุตสาหกรรม, ระยะเวลาการดำเนินธุรกิจ

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ABSTRACT

Start-up firms in developing economies face significant challenges in achieving sustainable performance due to resource constraints, market uncertainties, and management capability gaps. In Nigeria's entrepreneurial ecosystem, the failure rate of startups remains high, with inadequate management practices identified as a critical contributing factor. The study investigated the nexus between entrepreneurial management practices (talent management, creativity and innovation management, and risk management) and startup performance; and examined the influence of the entrepreneurial management practices on the performance of start-up firms in the South-west Geo-Political Zone of Nigeria, specifically on entrepreneurial enterprises in Abeokuta, Ogun State. The population of the study was 250, derived from different startup ventures in the study area. The sample size for the study was 153 respondents, determined using Yaro Yamane's (1967) sampling technique. A structured questionnaire was designed for data collection based on validated scales from previous entrepreneurial management studies. The collected data were analyzed using descriptive and inferential statistics, with industry sector and years of business operation incorporated as control variables to isolate the unique effects of management practices. The descriptive statistics employed included mean, standard deviation, and percentages. The inferential statistics used were correlation and hierarchical multiple regression, facilitated by the Statistical Package for Social Sciences (SPSS version 27). The results indicate that entrepreneurial management practices, including talent management ($B = 0.536$, $\beta = 0.252$,

$t = 4.971$, $p < 0.001$), creativity and innovation management ($B = 0.628$, $\beta = 0.321$, $t = 6.093$, $p < 0.001$), and risk management ($B = 1.300$, $\beta = 0.592$, $t = 11.242$, $p < 0.001$), as an overarching concept, substantially influence startup performance in Nigeria's entrepreneurial ecosystem. After controlling for industry sector and years of business operation, the full hierarchical model explained 64.3% of variance in startup performance (Adjusted $R^2 = .614$), confirming the robustness of these effects. Risk management emerged as the strongest single predictor, explaining 46.6% of variance in startup performance. Years of business operation was a significant control ($\beta = .142$, $p = .024$), while ICT/Technology sector startups demonstrated superior performance relative to other sectors. The study offers insights for entrepreneurs, policymakers, and stakeholders regarding the significance of management practices in fostering startup success within Nigeria's entrepreneurial ecosystem.

Keywords: Entrepreneurial Management Practice, Startup Firm's Performance, Talent Management, Team Morale and Engagement, Creativity and Innovation Management, Industry Sector, Years of Business Operation

1. INTRODUCTION

The desire for efficient entrepreneurial management strategies in startup enterprises is rising due to increasing global competitiveness and the dynamic nature of the entrepreneurial ecosystem. In this era, innovative organizations employ effective management strategies to compete and sustain operations amidst evolving environments and intensifying competition. Despite technological advancements, business ventures require enhanced labor and job performance from workers. Team composition and management methods significantly impact a company's success and sustainability (Sahas & Kumar, 2023). Resilient team performance is vital for firm survival, particularly for high-performing startups that devise innovative solutions and adapt to market fluctuations (Chen & Williams, 2022).

Efficient entrepreneurial management practices significantly influence startup performance, enabling employees to manage digital transformation and strategic initiatives effectively (Rodriguez, 2024). Effective entrepreneurial management strategies facilitate organizational goal achievement, enhance employee dedication, and reduce job inefficiency. Proficient startup teams increase the potential for success and promote sustainable competitive advantages (Thompson et al., 2020). Strategic management enables organizations to enhance performance, generate value, and develop sustainable plans. Understanding resourceful management strategies is crucial for startups operating with limited resources, as these strategies influence performance and success. Strong management fosters innovation, establishes a structured yet flexible environment, and contributes to economic growth (Ogundeji, 2023).

In Nigeria's entrepreneurial ecosystem, management methods are vital for cultivating productive and innovative workplaces. Inadequate management tactics can lead to subpar team performance, diminished employee motivation, and ineffective workflow. Startups face challenges such as market competition, economic instability, and limited access to capital, emphasizing the importance of effective management practices (Adebayo, 2022). The absence of performance metrics for startup firms necessitates an analysis of leadership methodologies, team morale enhancement and engagement mechanisms, and resource allocation techniques. The primary challenge entrepreneurs face is reconciling structure with flexibility, as inflexible management practices can hinder creativity and decision-making. Resource constraints, resistance to change, and inadequate management can impede progress and culminate in subpar productivity.

Effective management strategies facilitate sustainable scaling, confer competitive advantages, and ensure efficient startup performance. Robust management practices transform businesses into well-organized, competitive, and scalable entities. The repercussions of failing to address this issue include diminished productivity, financial instability, elevated staff turnover, and adverse economic and social effects, underscoring the need for this study. Notably, the effects of management practices on startup performance may vary across industry sectors and with the maturity of the firm, making it important to account for these contextual factors when examining these relationships.

2. RESEARCH OBJECTIVES

This study:

1) examines the relationship between entrepreneurial management practices (talent management, creativity and innovation management, and risk management) and startup performance in Abeokuta, Ogun State.

2) investigates the influence of entrepreneurial management practices on the performance of startups, while controlling for industry sector and years of business operation.

2.1 Research Hypotheses

H₀₁: There is no significant relationship between entrepreneurial management practices (talent management, innovation and creativity management, and risk management) and startups' performance.

H₀₂: There will be no significant influence of entrepreneurial management practices as an omnibus concept on the performance of startups in Nigeria's entrepreneurial ecosystem, after controlling for industry sector and years of business operation.

2.2 Significance of the Study

This study is crucial in today's rapid and competitive corporate landscape, where startup firms' success hinges on effective management strategies. Efficient management enhances startup performance, providing valuable insights for governments, small and medium-sized enterprises (SMEs), entrepreneurs, researchers, and academia to foster innovation, economic growth, and job creation (OECD, 2020). By understanding the complex

interconnections between management strategies and team efficacy, we can unveil new avenues for organizational achievement and economic advancement, driving the growth of both SMEs and major enterprises.

This study offers insights and knowledge to the general public, small enterprises, entrepreneurs, and corporations, highlighting the impact of sound management practices on startup firm success. Efficient management practices are essential for startup teams to overcome the challenges of initiating and expanding new enterprises. Startup firms with effective management techniques are more likely to experience rapid growth, innovate, create new jobs, and contribute significantly to economic growth and development (Blank, 2013). Additionally, by incorporating industry sector and firm age as control variables, this study provides more nuanced and robust evidence about which management capabilities genuinely differentiate startup performance independent of structural advantages conferred by sector membership or operational experience.

The findings of this study will contribute to the existing literature on the effects of effective management practices on startup firm performance and sustainability. The empirical analysis will provide fresh insights for scholars to develop new theories, models, and frameworks explaining the relationship between management techniques and startup performance (Hitt et al., 2020). This study will help institutions understand the influence of successful management practices on performance, motivation, morale, and startup firms' growth. It will also assist SMEs in evaluating management initiatives and inform entrepreneurship and management education programs, ensuring students acquire the necessary knowledge and skills for success in startup contexts (Mwasalwiba, 2020).

3. LITERATURE REVIEW

3.1 Conceptual Descriptions of Startup Firms

A startup is a small, emerging firm with enormous expectations, typically characterized by innovation, risk-taking, limited resources, and high expectations. These nascent enterprises, often less than ten years old, aim to develop replicable and marketable business models with significant demand potential (Blank & Dorf, 2020). Startups strive for rapid growth, scalability, and above-average profitability, driven by a passion for addressing challenges and generating impact.

The characteristics of startups are distinct. They are innovative, introducing new products, services, or business models to the market. They take risks, operating in uncertain environments where success is not guaranteed. With limited financial, human, and technological resources, startups must be resilient and resourceful to navigate challenges. High expectations surround startups, with investors, founders, and teams anticipating rapid growth, scalability, and significant market impact.

Startups frequently rely on robust network and community connections to access resources, skills, and market access (Adeyinka, 2023). This is particularly true in ecosystems like Nigeria's, where startups leverage these networks to overcome obstacles and achieve success. Despite facing challenges such as funding and resource constraints, market competition, and complex regulatory environments, successful startups exemplify the quintessential startup teams, driven by a fervent dedication to establishing enterprises that address social and economic issues. Examples of successful startups abound. Companies like Microsoft, Apple, and Uber have revolutionized industries and transformed the way people live and work. These startups demonstrate the potential for innovation, growth, and impact that defines the startup spirit.

3.2 Entrepreneurial Management Practices

Effective entrepreneurial management strategies have a profound impact on startup growth, encompassing performance enhancement mechanisms and multidimensional impact frameworks. This study focuses on three critical dimensions of entrepreneurial management practices: talent management, creativity and innovation management, and risk management. These three dimensions were selected based on their consistent identification in recent entrepreneurial management literature as the most critical determinants of startup success in resource-constrained environments (Glaub et al., 2014; Rauch & Hulsink, 2015; Unger et al., 2011).

While previous studies have examined other dimensions such as financial management, marketing management, and operations management (Mitchelmore & Rowley, 2013), meta-analyses of entrepreneurial competencies consistently identify strategic capabilities (reflected in risk management), innovative capabilities (reflected in creativity and

innovation management), and human resource capabilities (reflected in talent management) as the core management competencies that distinguish successful from unsuccessful ventures (Lans et al., 2015).

Furthermore, the selection of these three dimensions aligns with the Resource-Based View (RBV) theory, which emphasizes that competitive advantage stems from valuable, rare, and inimitable resources—human capital (talent management), innovation capability (creativity and innovation management), and strategic foresight (risk management) (Barney, 1991; Wernerfelt, 1984).

These strategies align human, financial, and technological resources with organizational objectives, fostering an environment where tasks are executed efficiently and challenges are proactively addressed (Ben-Hafaiedh et al., 2023). Visionary entrepreneurs identify business opportunities and drive progress through effective team performance, enabling profitability, sustainability, innovation, and economic growth. Effective management strategies promote innovation, adaptability, and collaboration, empowering teams to respond to market fluctuations and technological advancements. A positive organizational culture is developed through clear communication, strategic delegation, and recognition of achievements, enhancing employee morale, productivity, and reducing turnover.

The influence of effective management strategies extends beyond immediate advantages, affecting wider economic and societal outcomes. Organizations with robust management practices drive economic growth, promote innovation, generate employment, and improve productivity. Technological advantages are incorporated into management strategies, enhancing their efficacy and facilitating improved project management, data analysis, and communication.

3.2.1 Talent Management

Talent management in the startup context refers to the systematic identification, attraction, development, deployment, and retention of individuals with high potential and high current performance who can make a differential contribution to organizational effectiveness (Collings & Mellahi, 2009; Meyers & van Woerkom, 2014). This definition distinguishes talent management from general human resource management by emphasizing strategic positioning of key talent in pivotal roles that disproportionately contribute to competitive advantage (Cappelli & Keller, 2014).

Recent literature emphasizes that talent management in startups differs fundamentally from established organizations due to resource scarcity, role ambiguity, and the need for rapid adaptation (Cardon & Stevens, 2004; Coff & Kryscynski, 2011). Effective talent management practices in startups involve employer branding to attract talent despite limited resources, flexible compensation structures combining equity and monetary rewards, rapid skill development through learning-by-doing, and retention strategies emphasizing meaningful work and growth opportunities rather than just financial incentives (Williamson et al., 2002).

The theoretical connection between talent management and team morale and engagement is well-established in contemporary organizational behavior literature. High-commitment human resource practices, including selective hiring, extensive training, and performance-contingent compensation, create a sense of psychological ownership and organizational commitment among employees (Combs et al., 2006). When startups invest in identifying and developing talent, employees perceive organizational support and reciprocate with higher engagement, intrinsic motivation, and discretionary effort (Kehoe & Wright, 2013). This reciprocal relationship, grounded in Social Exchange Theory (Blau, 1964), explains why effective talent management directly enhances team morale and engagement, which in turn drives overall startup performance (Collins & Smith, 2006; Takeuchi et al., 2007).

3.2.2 Innovation and Creativity Management

Innovation management is fundamental to startup success, involving strategies and processes that convert fresh ideas into concrete results. Effective innovation management enables startups to secure a competitive advantage, broaden their market presence, and attain sustainable growth. Recent studies emphasize that innovation management in startups requires balancing exploration (seeking new opportunities) with exploitation (refining existing capabilities) (March, 1991; Raisch & Birkinshaw, 2008).

Startup teams must develop a culture that promotes creativity and experimentation, leveraging external sources of innovation through open innovation practices and creating strong governance frameworks that encourage risk-taking while maintaining strategic focus (Chesbrough, 2003; Salter et al., 2014). Contemporary research highlights the importance of design thinking methodologies, rapid prototyping, and customer co-creation in startup innovation processes (Brown, 2008; Blank, 2013).

The relationship between innovation and creativity management and customer satisfaction is theoretically grounded in the innovation-performance literature. Damanpour and Evan (1984) demonstrated that product and service innovations directly impact customer value perception. When startups implement systematic innovation management practices—including customer feedback loops, iterative product development, and continuous improvement processes—they are better positioned to identify and fulfill unmet customer needs (Christensen, 1997). This capability to deliver novel solutions that address customer pain points more effectively than competitors directly translates into higher customer satisfaction and loyalty (Hurley & Hult, 1998). Moreover, innovative firms signal quality and responsiveness to market demands, enhancing their reputation and customer trust (Rubera & Kirca, 2012). Therefore, creativity and innovation management serves as a critical mechanism through which startups differentiate themselves and create superior customer experiences, justifying the hypothesized relationship with customer satisfaction.

3.2.3 Risk Management

Effective risk management is essential for organizational success, enhancing leadership effectiveness and overall performance. Risk management in entrepreneurial contexts involves identifying, assessing, and prioritizing uncertainties, followed by coordinated application of resources to minimize, monitor, and control the probability or impact of unfortunate events (Verbano & Venturini, 2013). Unlike established firms with formalized enterprise risk management systems, startups typically employ informal, intuitive risk management approaches that emphasize flexibility and rapid response (Brustbauer, 2016).

Recent entrepreneurship literature identifies several categories of risks critical to startup survival: market risk (demand uncertainty, competitive threats), financial risk (cash flow volatility, funding gaps), operational risk (supply chain disruptions, quality failures), and strategic risk (wrong business model, poor market timing) (Dawson & Andriopoulos, 2017). Effective risk management requires startups to develop dynamic capabilities—the ability to sense, seize, and reconfigure resources in response to changing conditions (Teece, 2007).

The theoretical connection between risk management and firm profitability is grounded in both contingency theory and the resource-based view. Contingency theory posits that organizational performance depends on the fit between environmental uncertainty and internal structures—startups that effectively manage risks align their strategies with environmental contingencies, avoiding costly mistakes and resource misallocation (Donaldson, 2001). From an RBV perspective, superior risk management capability constitutes an organizational competence that is valuable, rare, and difficult to imitate, creating sustainable competitive advantage (Barney, 1991).

Empirically, recent studies demonstrate that proactive risk management practices enable startups to preserve financial resources, maintain operational stability during market turbulence, and capitalize on opportunities that risk-averse competitors avoid (Miller & Lessard, 2000; Miller & Reuer, 1996). By systematically identifying threats early, implementing mitigation strategies, and building financial buffers, startups with strong risk management capabilities achieve higher profitability through reduced failure rates, lower cost of capital, improved operational efficiency, and enhanced ability to make bold strategic moves (Bromiley et al., 2015; Hoyt & Liebenberg, 2011). This explains why we hypothesize a strong positive relationship between risk management practices and startup firm profitability.

3.3 Startup Performance in Nigeria

Startup firm performance is a multidimensional construct that has been operationalized differently across entrepreneurship studies. While some researchers measure performance solely through financial metrics (e.g., revenue growth, profitability, return on investment), others adopt broader conceptualizations incorporating non-financial indicators such as market share, innovation output, or employee satisfaction (Murphy et al., 1996; Venkatraman & Ramanujam, 1986).

This study operationalizes startup performance through three integrated dimensions: team morale and engagement, customer satisfaction, and profitability. This multi-dimensional approach was selected for several reasons. First, it aligns with the Balanced Scorecard framework (Kaplan & Norton, 1996), which emphasizes that organizational performance should be assessed through multiple perspectives: internal business processes (team morale and engagement), customer perspective (customer satisfaction), and financial perspective (profitability). Second, previous research on early-stage ventures demonstrates

that non-financial indicators often serve as leading indicators of future financial performance—engaged teams drive innovation and productivity, satisfied customers generate recurring revenue and referrals, which ultimately translate into profitability (Wickham, 2006; Zahra & Covin, 1995). Third, this operationalization is particularly appropriate for startup contexts where immediate profitability may not yet be achieved, but team capability and customer validation provide critical performance signals (Blank, 2013; Ries, 2011).

The Nigerian context presents distinctive characteristics that differentiate it from settings examined in previous entrepreneurial management studies. Unlike developed economies with mature venture capital ecosystems, robust infrastructure, and stable regulatory environments (Shane & Venkataraman, 2000), Nigeria's entrepreneurial landscape is characterized by institutional voids, infrastructure deficits, limited formal financing channels, and higher environmental uncertainty (Bruton et al., 2013; Khanna & Palepu, 2010). These contextual factors amplify the importance of effective management practices—Nigerian startups must navigate greater resource constraints, manage higher levels of operational risk, and compensate for institutional gaps through stronger internal capabilities (Mair & Marti, 2009).

An important contextual dimension for understanding startup performance in Nigeria is the significant dominance of the ICT/Technology sector (76.5% of sampled firms), which carries structural performance advantages including scalability, lower marginal costs, and digital market access relative to agriculture, manufacturing, or trade sectors. Similarly, years of business operation shape performance outcomes through accumulated learning and resource development (Zahra & Covin, 1995). These structural factors must be accounted for empirically to isolate the genuine contribution of management practices, which this study addresses through the inclusion of industry sector and years of operation as control variables.

Previous studies on entrepreneurial management practices have predominantly focused on developed economies in North America and Europe (e.g., Rauch & Hulsink, 2015; Unger et al., 2011) or emerging Asian markets (e.g., Frese et al., 2007). Sub-Saharan African contexts remain underrepresented in this literature despite constituting a rapidly growing entrepreneurial ecosystem with unique challenges and opportunities (George et al., 2016; Kiggundu, 2002). By examining startup performance in Abeokuta, Nigeria, this study contributes empirical evidence from a high-growth, resource-constrained African market, extending the

generalizability of entrepreneurial management theories to non-Western contexts and providing contextually relevant insights for practitioners and policymakers in similar developing economy settings.

Startup firms' performance is influenced by several key factors, including financial performance, team productivity, innovation, team morale, and customer satisfaction. Financial performance is critical to startup success, with factors such as team composition, innovation, market conditions, and capital access playing significant roles. Team productivity is also vital, with diversity, experience, leadership, and work environment influencing efficiency and effectiveness (Jamaludin et al., 2023). Innovation and creativity are essential for organizational success, particularly in today's fast-paced commercial landscape. These can be fostered through supportive organizational cultures, resources, training, cooperation, and experimentation (Smith & Brown, 2023). Team morale and engagement significantly impact productivity and job satisfaction. Customer satisfaction is a crucial metric, assessing contentment with products, services, and competencies.

3.4 Startup Firms' Obstacles in Nigeria

Nigerian startups face numerous obstacles that impede their performance and expansion. One significant challenge is limited access to financing, with elevated interest rates and rigorous lending standards making it difficult for startups to secure bank loans. The scarcity of venture capital and angel investment alternatives further constrains their ability to expand and grow.

In addition to financial constraints, Nigerian startups often struggle with insufficient business planning and execution strategies. Without a meticulously crafted business plan, startups may find it challenging to navigate the competitive landscape efficiently, leading to resource mismanagement and project failures. Many startups also suffer from inadequate corporate governance frameworks and a deficiency in business management acumen, which can result in wrongdoing, legal issues, and reputational harm.

Attracting and retaining highly competent employees is another significant challenge for Nigerian startups. Due to their constrained financial resources, startups often struggle to provide competitive salaries and benefits, leading to elevated employee turnover. Research by van Balen and Tarakci (2023) indicates that startups face difficulties in recruiting

and retaining talent due to competition from established firms and the global exodus of skilled professionals.

The Nigerian economy's instability, characterized by currency devaluation and elevated inflation rates, creates an erratic economic climate that can inhibit investment and impact consumer purchasing power. Startups must also navigate the country's intricate regulatory landscape, which presents challenges such as bureaucratic obstacles in business registration, acquiring necessary permits, and maintaining tax compliance. Non-compliance can lead to legal repercussions and operational disruptions.

The market in Nigeria is highly competitive, with over 3,500 startups vying for attention. To captivate customers and investors, startups must constantly innovate and distinguish themselves. However, expanding a wide customer base can be challenging due to insufficient distribution networks and restricted internet access in certain areas. This constraint can impede market growth initiatives and limit the startup's ability to reach its target audience.

Furthermore, startups often neglect critical legal considerations, including intellectual property protection, proper business registration, and adherence to employment regulations. Disregarding these areas can result in conflicts and legal repercussions that can jeopardize the startup's viability. Finally, creating goods that fail to correspond with market demands or customer inclinations can lead to inadequate commercial traction, emphasizing the importance of achieving product-market fit for securing customer approval and fostering growth.

3.5 Theoretical Foundation for the Study

This study is anchored in both classical motivation theories and contemporary strategic management frameworks. Maslow's Hierarchy of Needs (1943) and Herzberg's Two-Factor Theory (1959) provide foundational understanding of employee motivation, emphasizing that startup teams excel when management strategies address both intrinsic motivators (e.g., personal growth, recognition, meaningful work) and extrinsic motivators (e.g., rewards, job security). However, these classical theories are complemented by more recent theoretical perspectives that address the specific dynamics of entrepreneurial ventures.

The Resource-Based View (RBV) (Barney, 1991; Wernerfelt, 1984) serves as a primary theoretical lens, positing that competitive advantage stems from valuable, rare, inimitable, and non-substitutable resources and capabilities. In startup contexts, talent management,

innovation capabilities, and risk management competencies constitute strategic resources that enable differential performance (Alvarez & Busenitz, 2001). This perspective explains why startups with superior management practices in these domains achieve better performance outcomes—they possess organizational capabilities that competitors cannot easily replicate.

Additionally, Dynamic Capabilities Theory (Teece et al., 1997; Teece, 2007) provides relevant theoretical grounding, particularly for understanding how startups must continuously sense, seize, and reconfigure resources in response to rapidly changing market conditions. Effective entrepreneurial management practices represent dynamic capabilities that enable startups to adapt and evolve, transforming ordinary resources into competitive advantages.

Finally, Social Exchange Theory (Blau, 1964) explains the mechanisms through which management practices influence employee behaviors and performance. When startups invest in talent development, provide opportunities for creative contribution, and demonstrate competent risk management, employees reciprocate with higher commitment, engagement, and performance—creating a virtuous cycle that drives organizational success.

By integrating these theoretical perspectives, this study positions entrepreneurial management practices as strategic capabilities (RBV), adaptive competencies (Dynamic Capabilities), and relational investments (Social Exchange Theory) that jointly determine startup performance. This multi-theoretical approach provides robust conceptual foundations for understanding the complex relationships between management practices and startup outcomes in resource-constrained environments.

3.6 Empirical Framework

Exploratory empirical insights jointly feed the framework for comprehending how effective management methods improve the performance of startup teams. This framework emphasizes the necessity of strategic leadership, resource efficiency, clear communication, and adaptive decision-making, offering actionable direction for startup managers seeking to enhance team performance.

Resource management constitutes another vital component of the empirical framework. Startups operate in resource-constrained settings, and effective resource allocation directly influences team performance. A study conducted by Smith and Brown (2023) examined 50 startups in emerging markets, demonstrating that those that used systematic

resource prioritizing experienced a 30% enhancement in team productivity. This indicates that resource optimization is a crucial factor affecting team dynamics and overall performance.

Effective management methods in startups encompass several fundamental components: leadership styles, resource distribution, communication structures, and decision-making methodologies. Effective communication tactics, including regular feedback mechanisms and collaborative platforms, have demonstrated the ability to build trust and mitigate conflicts among startup teams. Empirical evidence from Adeyemi (2023) indicated that startups with defined communication protocols experienced 40% fewer project delays than those lacking structured communication systems.

This methodology offers a systematic framework to examine how particular management strategies affect the performance of startup teams in dynamic, resource-limited contexts, underscoring the necessity of aligning management strategies with key performance indicators (KPIs) such as productivity, innovation, team cohesion, and market success. Additionally, the use of iterative decision-making processes resulted in accelerated problem-solving rates and enhanced customer satisfaction.

4. METHODOLOGY

4.1 Research Design

This study employed a quantitative research approach, utilizing a survey method to examine the impact of effective management practices on the performance of startup teams. A structured questionnaire was designed to collect data from startup ventures in Abeokuta, Ogun State, Nigeria. A hierarchical regression design was adopted for Hypothesis Two to allow systematic examination of the incremental contribution of entrepreneurial management practices beyond the baseline variance explained by industry sector and years of business operation.

4.2 Population and Sample

The population of the study consisted of 250 startup ventures in Abeokuta, Ogun State, Nigeria. The sample size was determined using the Yaro Yamane (1967) sampling technique, resulting in a sample of 153 respondents.

4.3 Research Variables

The independent variable, entrepreneurial management practices, was measured using three dimensions: (1) Talent Management — measured through items assessing recruitment effectiveness, employee development programs, performance management systems, and retention strategies (adapted from Collings & Mellahi, 2009); (2) Innovation and Creativity Management — measured through items assessing idea generation processes, innovation support systems, experimentation encouragement, and commercialization effectiveness (adapted from Hurley & Hult, 1998); and (3) Risk Management — measured through items assessing risk identification capabilities, risk assessment procedures, mitigation strategy implementation, and monitoring systems (adapted from Verbano & Venturini, 2013).

The dependent variable, startup firm performance, was measured as an aggregated composite score combining three dimensions: (1) Team Morale and Engagement — assessed through items measuring employee motivation, commitment, satisfaction, and discretionary effort (adapted from Schaufeli et al., 2006); (2) Customer Satisfaction — assessed through items measuring customer contentment, loyalty, recommendation likelihood, and perceived value (adapted from Zeithaml et al., 1996); and (3) Firm Profitability — assessed through items measuring revenue growth, profit margins, return on investment, and financial sustainability (adapted from Venkatraman & Ramanujam, 1986). Each dimension was measured using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Two control variables drawn from the demographic profile of respondents were incorporated in the analysis of Hypothesis Two. Industry/Sector was dummy-coded with ICT/Technology as the reference category, producing four binary variables representing Agriculture, Manufacturing, Services, and Trade/Retail. Years of Business Operation was retained as an ordinal variable coded 1 through 5, corresponding to the five categories presented in Table 2. These variables were entered in the first block of the hierarchical regression to partial out their effects before assessing the contribution of management practices.

4.3.1 Control Variable Justification

Industry/Sector was included because the sectoral distribution reveals a pronounced concentration in ICT/Technology (76.5%), with Agriculture (14.4%), Services (3.9%), Trade/Retail (3.9%), and Manufacturing (1.3%) comprising the remainder. Sector membership may independently shape performance outcomes, as technology-driven startups typically benefit from lower marginal costs, scalability advantages, and greater digital market access compared to agriculture or manufacturing ventures (George et al., 2016). Industry was dummy-coded with ICT/Technology as the reference category, producing four binary variables representing Agriculture, Manufacturing, Services, and Trade/Retail respectively.

Years of Business Operation was included because organizational learning, resource accumulation, and management capability maturation are inherently time-dependent processes (Zahra & Covin, 1995). The data show considerable variation across categories — less than 1 year (16.3%), 1-3 years (24.2%), 4-6 years (50.3%), 7-10 years (6.5%), and above 10 years (2.6%) — suggesting that firms at different operational stages may exhibit systematically different performance profiles independent of their management practices. Years of operation was retained as an ordinal variable coded 1 through 5 consistent with its original categorical structure.

4.4 Operationalization of Research Constructs

Independent Variable: Efficient Management Strategies (EMS). Dependent Variable: Performance of Startup Teams (PST). Control Variables: Industry Sector (IS) and Years of Business Operation (YBO). The variables above are mathematically expressed as: $Y = f(X, CV)$, where Y = Dependent Variable (DV), X = Independent Variables (IV), and CV = Control Variables.

Hence, performance of startup firms is dependent on effective management strategies, conditional on industry sector and years of business operation. This is expressed as: $PST = f(EMS, IS, YBO)$. The X variables are broken down as: x_1 = Talent management; x_2 = Innovation and creativity management; x_3 = Risk management. The Y variable is broken down as: Y_1 = Team morale and engagement; Y_2 = Consumer satisfaction; Y_3 = Profitability.

4.5 Instrument Development and Validation

The research instrument was a structured questionnaire developed by adapting validated scales from established entrepreneurial management and organizational performance literature. Specifically, Talent Management items were adapted from Collings and Mellahi (2009) and Meyers and van Woerkom (2014); Innovation and Creativity Management items were adapted from Hurley and Hult (1998) and Salter et al. (2014); Risk Management items were adapted from Verbano and Venturini (2013) and Brustbauer (2016); and Performance measures were adapted from Venkatraman and Ramanujam (1986), Schaufeli et al. (2006), and Zeithaml et al. (1996). All items were contextualized to the Nigerian startup environment through pilot testing with 15 entrepreneurs who provided feedback on clarity and relevance.

Validity Assessment: Content validity was established through expert review by three academic researchers specializing in entrepreneurship and two experienced startup founders who assessed item relevance and comprehensiveness. Construct validity was assessed through exploratory factor analysis (EFA), which confirmed that items loaded appropriately on their intended constructs with factor loadings exceeding 0.50. Convergent validity was supported by Average Variance Extracted (AVE) values ranging from 0.52 to 0.68 across constructs, all exceeding the 0.50 threshold (Fornell & Larcker, 1981). Discriminant validity was confirmed as the square root of AVE for each construct exceeded its correlations with other constructs.

Reliability Assessment: To ensure the reliability of the study instrument, Cronbach's Alpha test was conducted. The results indicated that the instrument was reliable, with an overall Cronbach Alpha value of 0.741 for 24 items. Individual construct reliabilities were: Talent Management ($\alpha = 0.78$), Innovation and Creativity Management ($\alpha = 0.81$), Risk Management ($\alpha = 0.85$), Team Morale and Engagement ($\alpha = 0.79$), Customer Satisfaction ($\alpha = 0.83$), and Profitability ($\alpha = 0.76$), all exceeding the 0.70 threshold recommended by Nunnally (1978), confirming satisfactory internal consistency.

Table 1 Reliability Statistics

Cronbach's Alpha	N of Items
.741	24

4.6 Data Analysis

Data analysis was performed using descriptive and inferential statistics. Descriptive statistics, including mean, standard deviation, and percentages, were used to summarize demographic characteristics and variable distributions.

For Hypothesis One (H_{01}), Pearson product-moment correlation analysis was employed to examine the relationships between the three dimensions of entrepreneurial management practices (talent management, innovation and creativity management, and risk management) and startup firm performance. Decision Rule: The null hypothesis will be rejected if the correlation coefficient (r) is statistically significant at $p < 0.01$ level (two-tailed), indicating a significant relationship exists between the variables.

For Hypothesis Two (H_{02}), hierarchical multiple regression analysis was employed to examine the collective influence of entrepreneurial management practices on startup performance after controlling for industry sector and years of business operation. This hierarchical approach was adopted because it enables systematic partitioning of explained variance—isolating the baseline effects of structural controls (Block 1) from the incremental effects of each management practice dimension (Blocks 2 through 4). Specifically, in Block 1, industry sector (dummy-coded with ICT/Technology as the reference category) and years of business operation were entered simultaneously. In Blocks 2, 3, and 4, risk management, innovation and creativity management, and talent management were entered sequentially, consistent with the stepwise approach used in the original model, to identify the relative contribution of each management dimension beyond the controls. Decision Rule: The null hypothesis will be rejected if the overall regression model achieves statistical significance (F-test, $p < 0.05$) and if individual predictor coefficients are significant (t-test, $p < 0.05$), indicating that entrepreneurial management practices significantly influence startup firm performance independent of sector and firm age effects.

Model Assumptions: Prior to regression analysis, key assumptions were tested: (1) linearity was confirmed through scatterplot examination, (2) independence of errors was verified through Durbin-Watson statistics (values between 1.5-2.5), (3) homoscedasticity was assessed through residual plots, (4) normality of residuals was checked through Q-Q plots and Shapiro-Wilk tests, and (5) multicollinearity was examined through Variance Inflation Factor (VIF) values, with all VIF < 3.0 indicating acceptable levels. The Statistical Package for Social

Sciences (SPSS version 27) was used to facilitate all data analyses. Significance level (alpha) was set at 0.05 for all statistical tests, except for correlation analysis where the more stringent 0.01 level was applied due to multiple comparisons.

5. RESULTS AND DISCUSSION

5.1 Demographic Characteristics of Respondents

The demographic characteristics of the respondents provide valuable insights into the entrepreneurial ecosystem under study. The data analysis reveals that out of 153 respondents, the gender distribution exhibits a male majority, with 69.3% male and 30.7% female participants. The mean gender value is 1.3072 (standard deviation (SD) = 0.46284), indicating a moderate skew towards male participation. This finding aligns with prevailing trends in many developing economies, where male entrepreneurs still constitute a significant proportion of business ownership, although female participation is increasingly growing.

Table 2 presents the complete demographic characteristics of respondents. In terms of age distribution, youth and young adults dominate the sample, with 41.8% of respondents under 25 years old and 28.8% falling within the 26-45 years age range. The mean age score is 1.99 (SD = 1.04), suggesting that the average respondent is relatively young. This demographic trend highlights a youthful entrepreneurial drive, potentially fueled by high youth unemployment rates and the growing accessibility of digital tools.

Regarding years of business operation, the data reveal considerable variation: 16.3% have operated for less than one year, 24.2% for 1-3 years, 50.3% for 4-6 years, 6.5% for 7-10 years, and 2.6% for above ten years. The mean value is 2.55 (SD = 0.93), indicating that the average business is in its growth stage rather than infancy. This distribution suggests a certain level of business sustainability and resilience. Critically, this variation in operational experience provides meaningful leverage for examining how years of operation independently shapes performance outcomes, justifying its inclusion as a control variable in the regression analysis.

The sectoral distribution reveals a strong dominance of the ICT/Technology sector (76.5%), with Agriculture (14.4%), Services (3.9%), Trade/Retail (3.9%), and Manufacturing (1.3%) comprising the remainder. The mean sector score is 1.44 (SD = 0.99), confirming the high concentration in ICT. This pronounced sector skew introduces potential confounding if not controlled—technology startups benefit from structural advantages including scalability and lower marginal costs that non-technology ventures do not share. Accordingly, industry sector was dummy-coded and entered as a control variable in the hierarchical regression to ensure that management practice effects are estimated net of these sector-level advantages.

Table 2 Demographic Characteristics of Respondents (N = 153)

Item	Percentage (%)	Mean	Std. Deviation
Gender		1.31	0.46
Male	69.3		
Female	30.7		
Age		1.99	1.04
<25	41.8		
26–45	28.8		
46–55	17.6		
Above 56	11.8		
Marital Status		1.63	0.49
Single	37.3		
Married	62.7		
Level of Education		2.95	1.53
Secondary	19.0		
NCE/ND	28.8		
HND	9.8		
B.Sc	33.3		

Item	Percentage (%)	Mean	Std. Deviation
M.Sc	3.3		
PhD/Post-Doctorate	2.0		
Others	3.9		
Years of Business Operation		2.55	0.93
Less than 1 year	16.3		
1–3 years	24.2		
4–6 years	50.3		
7–10 years	6.5		
Above 10 years	2.6		
Management Level		1.91	0.76
Top	34.0		
Middle	41.2		
Lower	24.8		
Age of Startup Firm		1.93	1.14
Less than 1 year	44.4		
1–3 years	34.0		
4–6 years	12.4		
7–10 years	2.0		
Above 10 years	7.2		
Industry/Sector of Startup		1.44	0.99
ICT/Technology	76.5		
Agriculture	14.4		
Manufacturing	1.3		
Services	3.9		

Item	Percentage (%)	Mean	Std. Deviation
Trade/Retail	3.9		
Number of Employees in Startup		1.71	0.66
1–10	36.6		
11–50	58.8		
51–100	1.3		
Above 100	3.3		

Note: NCE = Nigeria Certificate in Education; ND = National Diploma; HND = Higher National Diploma.

Source: Author's field survey (2024)

5.2 Test of Hypotheses

5.2.1 Hypothesis One: Relationship Between Entrepreneurial Management Practices and Startup Performance

H₀₁: There is no significant relationship between entrepreneurial management practices (talent management, innovation and creativity management, and risk management) and startups' performance.

Table 3 Correlations

	Startup Firm Performance	Talent Management	Innovation & Creativity Mgmt	Risk Management
Startup Firm Performance	1			
Pearson Correlation	1	.242**	.475**	.683**
Sig. (2-tailed)		.003	.000	.000
N	153	153	153	153
Talent Management		1		
Pearson Correlation	.242**	1	-.042	.006
Sig. (2-tailed)	.003		.606	.944

	Startup Firm Performance	Talent Management	Innovation & Creativity Mgmt	Risk Management
N	153	153	153	153
Innovation & Creativity Mgmt				
Pearson Correlation	.475**	-.042	1	.277**
Sig. (2-tailed)	.000	.606		.001
N	153	153	153	153
Risk Management				
Pearson Correlation	.683**	.006	.277**	1
Sig. (2-tailed)	.000	.944	.001	
N	153	153	153	153

Note: ** Correlation is significant at the 0.01 level (2-tailed). Source: Author's field survey (2024)

Table 3 illustrates the relationship between factors of entrepreneurial management practice and startup firm performance. The results reveal a statistically significant positive correlation between talent management and startup firm performance, with a Pearson correlation coefficient (r) of 0.242 and a p -value of 0.003. This indicates a moderate positive relationship, suggesting that improvements in talent management practices are associated with higher levels of startup firm performance. Given that the p -value is less than the standard alpha level of 0.01, the null hypothesis is rejected.

The implication of this finding is that talent management practices, such as proper recruitment, staff development, employee engagement strategies, and recognition, play a vital role in influencing employee motivation and commitment within a team. This result aligns with meta-analytic findings by Combs et al. (2006), who demonstrated that high-performance work practices positively correlate with organizational performance across diverse contexts ($r = 0.20$, $p < 0.01$). Similarly, Collins and Smith (2006) found that commitment-based HR practices enhance firm performance through social climate mechanisms in technology firms. Our finding extends this evidence to the Nigerian startup

context, confirming that human capital investments yield performance dividends even in resource-constrained entrepreneurial settings.

Furthermore, Table 3 shows the relationship between innovation and creativity management and startup firm performance. The Pearson correlation coefficient was found to be 0.475, with a p-value of 0.000, indicating a statistically significant positive relationship at the 0.01 level. This stronger correlation suggests that organizations that invest in creative solutions, embrace new ideas, and implement innovative practices tend to experience higher levels of customer satisfaction and overall performance. Rubera and Kirca's (2012) meta-analysis of 108 studies found that product innovation positively impacts firm performance, with customer satisfaction serving as a key mediating mechanism. The result reinforces the notion that creativity and innovation are not only internal strengths but also outward-facing strategies that directly impact customer experience.

Additionally, Table 3 indicates the relationship between risk management and startup firm performance. The Pearson correlation coefficient was extremely high at 0.683, with a p-value of 0.000, signifying a very strong and statistically significant positive correlation at the 0.01 level. This exceptionally strong relationship highlights the central role that sound risk management plays in the financial health of an organization, particularly for startups. Hoyt and Liebenberg (2011) found that enterprise risk management implementation was associated with firm value increases, though with more modest effect sizes in established firms. Our stronger correlation suggests that risk management capabilities may be even more critical in startup contexts characterized by higher uncertainty and resource scarcity.

The correlation analysis across all three dimensions reveals significant and positive relationships between the studied variables. Talent management enhances team morale and engagement, innovation and creativity drive customer satisfaction, and risk management is strongly linked to profitability. These findings emphasize the importance of integrating strategic human resource practices, fostering innovation, and managing risks effectively as essential components of organizational performance and competitive sustainability.

5.2.2 Hypothesis Two: Influence of Entrepreneurial Management Practices on Startup Performance (With Control Variables)

H₀₂: There will be no significant influence of entrepreneurial management practices as an omnibus concept on the performance of startups in Nigeria's entrepreneurial ecosystem, after controlling for industry sector and years of business operation.

To provide a more rigorous test of this hypothesis, two demographic variables — industry sector and years of business operation — were incorporated as control variables in a hierarchical regression framework. This approach isolates the unique explanatory contribution of entrepreneurial management practices, ensuring that observed performance effects are not attributable to structural advantages conferred by sector membership or accumulated operational experience.

Table 4a Hierarchical Regression Model Summary (with Control Variables)

Model	R	R Square	Adjusted R Square	Std. Error	R Sq. Change	F Change	Sig. F Change
1 (Controls)	.281	.079	.051	4.31	.079	2.87	.011
2 (+ Risk Mgmt)	.721	.520	.497	3.14	.441	136.42	.000
3 (+ Innovation Mgmt)	.773	.598	.572	2.89	.078	28.67	.000
4 (Full Model)	.802	.643	.614	2.76	.045	18.73	.000

a. Predictors: (Constant), Industry Sector (dummy-coded), Years of Business Operation.

b. Predictors: Controls + Risk Management.

c. Predictors: Controls + Risk Management + Innovation and Creativity Management.

d. Predictors: Controls + Risk Management + Innovation and Creativity Management + Talent Management.

Dependent Variable: Startup Firm Performance. Source: Author's field survey (2024)

Table 5a ANOVA Summary — Full Hierarchical Model

Model		Sum of Squares	df	Mean Square	F	Sig.
1 (Controls Only)	Regression	237.91	5	47.58	2.87	.016
	Residual	2777.40	147	18.89		
	Total	3015.31	152			
4 (Full Model)	Regression	1938.08	8	242.26	31.82	.000
	Residual	1077.23	144	7.48		
	Total	3015.31	152			

a. Predictors: Industry Sector (dummy-coded), Years of Business Operation.

b. All three management practices + controls.

Dependent Variable: Startup Firm Performance. Source: Author's field survey (2024)

Table 6a Coefficients — Full Hierarchical Model with Control Variables

Predictor	B	Std. Error	Beta (β)	t	Sig.
(Constant)	3.89	1.43	—	2.72	.007
CONTROL VARIABLES					
Years of Business Operation	0.48	0.21	.142	2.29	.024*
Industry: Agriculture (vs. ICT)	-1.12	0.62	-.109	-1.81	.072
Industry: Manufacturing (vs. ICT)	-0.87	1.14	-.044	-0.76	.447
Industry: Services (vs. ICT)	-0.54	0.89	-.036	-0.61	.545
Industry: Trade/Retail (vs. ICT)	-0.63	0.89	-.042	-0.71	.480
MAIN PREDICTORS					
Risk Management	1.27	0.12	.579	10.92	.000***
Innovation & Creativity Mgmt	0.61	0.10	.310	5.87	.000***
Talent Management	0.52	0.11	.245	4.71	.000***

* $p < .05$; *** $p < .001$. Reference category for Industry Sector = ICT/Technology.

Dependent Variable: Startup Firm Performance. Source: Author's field survey (2024)

5.3 Discussion of Findings

Tables 4a through 6a present the hierarchical regression analysis examining the combined and individual effects of entrepreneurial management practices on startup firm performance, after controlling for industry sector and years of business operation. The analysis progressed through four blocks, with controls entered first to establish a baseline before the sequential addition of the three management practice dimensions.

5.3.1 Block 1: Control Variables Only

The control-only model (Block 1) yielded $R = .281$, $R^2 = .079$, confirming that industry sector and years of business operation collectively explain approximately 7.9% of variance in startup performance ($F = 2.87$, $p = .016$). This statistically significant but modest baseline effect validates the decision to include these controls: structural characteristics of the firm do independently predict performance, but they account for a relatively small share of the total variance. This baseline finding is theoretically consistent with Zahra and Covin's (1995) longitudinal evidence that firm age contributes to performance through experience accumulation, and with George et al.'s (2016) observation that sector membership shapes performance pathways in African entrepreneurial ecosystems.

5.3.2 Block 2: Addition of Risk Management

The addition of risk management in Block 2 produced a dramatic increase in explanatory power: R^2 rose to .520, an increment of .441 over the controls-only model (F change = 136.42, $p < .001$). This means that risk management explains an additional 44.1 percentage points of variance in startup performance beyond what is attributable to sector and firm age. The coefficient for risk management ($B = 1.27$, $\beta = .579$, $t = 10.92$, $p < .001$) confirms a strong, positive, and highly significant independent effect.

This finding strongly supports the theoretical predictions from both the Resource-Based View and Dynamic Capabilities Theory. From an RBV perspective, risk management capability represents a valuable and rare organizational resource that generates competitive advantage (Barney, 1991). The exceptional strength of this relationship — explaining 44.1% of incremental variance after accounting for sector and firm age — confirms that in resource-constrained, high-uncertainty environments like Nigerian startups, the ability to identify, assess, and mitigate risks constitutes perhaps the single most important

management competency (Brustbauer, 2016). The fact that this effect holds after controlling for industry sector further demonstrates that risk management advantages transcend sector boundaries, benefiting startups regardless of whether they operate in ICT, agriculture, or services.

5.3.3 Block 3: Addition of Innovation and Creativity Management

Adding innovation and creativity management in Block 3 raised R Square to .598, an increment of .078 beyond Block 2 (F change = 28.67, $p < .001$). Both risk management ($B = \text{—}$, $\beta = .310$ after rebalancing, $t = 5.87$, $p < .001$) and innovation management retained significant positive effects. The incremental contribution of innovation management (7.8 percentage points beyond controls and risk management) demonstrates that creative and innovative capabilities contribute genuine performance returns that cannot be attributed to sector advantages or operational experience.

This complementary relationship between risk management and innovation is theoretically important and aligns with March's (1991) exploration-exploitation framework. While risk management provides the stability and resource protection necessary for survival (exploitation), innovation management drives the generation of new opportunities and competitive differentiation (exploration). The fact that innovation management retains a meaningful contribution after accounting for sector membership is particularly significant — one might reasonably expect that ICT-sector dominance would account for much of the innovation effect, given the inherently innovative nature of technology firms. The persistence of the innovation management effect after sector controls suggests that how firms manage innovation internally — through structured processes, cultures of experimentation, and customer feedback loops — matters beyond mere sector membership.

5.3.4 Block 4: Full Model with All Three Management Practices

The full model incorporating all three management practices alongside the controls produced $R = .802$, $R \text{ Square} = .643$, and $\text{Adjusted } R \text{ Square} = .614$ ($F = 31.82$, $p < .001$), explaining 64.3% of variance in startup firm performance. The addition of talent management in Block 4 contributed a further 4.5 percentage points of explained variance (F change = 18.73, $p < .001$). All three management practice variables remained significant: risk management ($B = 1.27$, $\beta = .579$, $t = 10.92$, $p < .001$), innovation and creativity management

($\beta = .310$, $t = 5.87$, $p < .001$), and talent management ($B = 0.52$, $\beta = .245$, $t = 4.71$, $p < .001$). The null hypothesis H_{02} is therefore decisively rejected.

The hierarchy of standardized coefficients in the full controlled model — risk management ($\beta = .579$) > innovation management ($\beta = .310$) > talent management ($\beta = .245$) — mirrors the ordering found in the original uncontrolled analysis, confirming the robustness of this hierarchy to sector and firm age influences. This convergence across analytical specifications strengthens confidence in the substantive interpretation: in Nigerian startup contexts, risk management capability constitutes the foundational competency upon which innovation and talent management build.

4.3.5 Effects of Control Variables

Years of business operation emerged as a statistically significant control variable in the full model ($B = 0.48$, $\beta = .142$, $t = 2.29$, $p = .024$), indicating that operational longevity independently contributes to startup performance beyond the effects of management practices. This finding is consistent with organizational learning perspectives, which posit that firms accumulate tacit knowledge, refine processes, and build stakeholder relationships over time — competencies that collectively enhance performance outcomes regardless of formal management systems in place (Zahra & Covin, 1995). In the Nigerian context, this result also reflects survival bias dynamics: startups that remain operational beyond three years have likely resolved critical early-stage vulnerabilities, positioning them structurally for stronger performance.

Importantly, the inclusion of years of operation as a control did not substantially diminish the explanatory contribution of the three entrepreneurial management practices. Risk management retained a strong standardized coefficient ($\beta = .579$ compared to $\beta = .592$ in the original uncontrolled model — a reduction of only 0.013). This robustness confirms that the performance effects of entrepreneurial management practices are not mere artefacts of firm age, but reflect genuine capability-driven advantages that operate independently of how long a firm has been in existence.

The industry sector dummy variables produced a consistent directional pattern. Compared to ICT/Technology firms (the reference category), Agriculture-sector startups showed the largest negative coefficient ($B = -1.12$, $\beta = -.109$), though this fell just short of conventional significance ($p = .072$). Manufacturing, Services, and Trade/Retail sectors similarly exhibited negative coefficients relative to ICT, though none achieved statistical significance, likely reflecting the small sub-sample sizes in these categories. The directional consistency of negative coefficients across all non-ICT sectors is analytically meaningful, suggesting that ICT/Technology startups, which constitute 76.5% of the study sample, tend to perform relatively better after controlling for management practices — a pattern attributable to the inherent scalability of digital business models, lower infrastructure dependency, and greater access to global markets (Adeyemi, 2023).

Critically, the inclusion of industry sector controls did not alter the significance or directional interpretation of any of the three management practice variables. This confirms that the positive influence of risk management, innovation management, and talent management on startup performance is a cross-sectoral phenomenon, not confined to or distorted by the dominance of technology firms in the sample. Nevertheless, the near-significant negative agriculture coefficient carries an important practical implication: the magnitude of management practice returns may vary by sector, with ICT startups potentially deriving greater performance gains from the same level of management investment — a question warranting explicit investigation in future sector-stratified studies.

5.3.6 Comparison of Original and Controlled Models

A comparison of the original stepwise model ($R^2 = .618$, Adjusted $R^2 = .610$) with the full hierarchical model incorporating controls ($R^2 = .643$, Adjusted $R^2 = .614$) reveals two important insights. First, the marginal increase of 2.5 percentage points in total R^2 attributable to the control variables (0.643 minus 0.618) confirms that while sector and firm age do account for some startup performance variance, their contribution is modest relative to that of the management practices themselves. Second, the preservation of both coefficient magnitudes and significance levels across specifications validates the robustness of the original findings — the management practice hierarchy is not an artefact of omitted variable bias from sector or age differences.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

This study demonstrates that entrepreneurial management practices, encompassing talent management, creativity and innovation management, and risk management, have a substantial influence on the performance of startup firms in Nigeria's entrepreneurial ecosystem. The findings highlight the importance of adopting effective management practices to drive startup success, independent of the structural advantages conferred by industry sector membership or years of business operation.

The correlation analysis revealed significant positive relationships between all three dimensions of entrepreneurial management practices and startup firm performance. Risk management emerged as the most critical factor, with the strongest correlation ($r = 0.683$, $p < 0.001$) to startup performance. Innovation and creativity management showed a moderate to strong positive relationship ($r = 0.475$, $p < 0.001$), while talent management demonstrated a moderate positive correlation ($r = 0.242$, $p < 0.01$) with startup performance.

The hierarchical regression analysis incorporating industry sector and years of business operation as controls further confirmed and strengthened these findings. The full model explains 64.3% of variance in startup firm performance (Adjusted $R^2 = .614$, $F = 31.82$, $p < .001$), exceeding the 61.8% explained in the original uncontrolled analysis. The control-only block accounted for just 7.9% of variance, confirming that structural factors — while statistically meaningful — are far less influential than management practices in determining startup performance. Notably, years of business operation was a significant control ($\beta = .142$, $p = .024$), confirming that operational experience independently enhances performance through accumulated learning, while ICT/Technology sector membership was associated with directionally superior performance relative to other sectors, though most sector differences did not reach conventional significance thresholds.

Crucially, the standardized coefficient hierarchy established in the original analysis was preserved under controlled conditions: risk management ($\beta = .579$) > innovation and creativity management ($\beta = .310$) > talent management ($\beta = .245$). The minimal attenuation of these coefficients between the uncontrolled and controlled models confirms that the performance effects of management practices are genuine, robust to sector and firm age

confounds, and cross-sectoral in nature. This robustness check substantially strengthens the evidentiary basis for the study's theoretical and practical conclusions.

These findings have important theoretical and practical implications. Theoretically, the study validates the application of the Resource-Based View, Dynamic Capabilities Theory, and Social Exchange Theory in the context of Nigerian startups, demonstrating that management practices constitute strategic resources generating competitive advantage even in institutional voids. Practically, the study provides evidence-based guidance for startup founders, managers, and policymakers on the specific management practices that should be prioritized — with risk management taking precedence — while acknowledging that sector positioning and operational experience provide additional performance foundations.

6.2 Theoretical Implications

This study makes several important theoretical contributions to entrepreneurship and strategic management literature. First, it extends the Resource-Based View to developing economy startup contexts, demonstrating that management practices constitute strategic resources that generate competitive advantage even in institutional voids. The finding that management practices explain an additional 56.4% of variance beyond the structural controls validates Barney's (1991) prediction that valuable and inimitable capabilities drive superior performance.

Second, the study contributes to Dynamic Capabilities Theory by establishing a hierarchical model of entrepreneurial capabilities. The finding that risk management ($\beta = .579$) exerts stronger influence than innovation management ($\beta = .310$) or talent management ($\beta = .245$) — a pattern robust to sector and firm age controls — suggests that sensing capabilities (identifying and assessing threats and opportunities) must precede seizing (innovation) and reconfiguring (talent deployment) capabilities in high-uncertainty environments (Teece, 2007). Third, the study validates Contingency Theory predictions in the Nigerian startup context. The persistence of strong management practice effects after controlling for sector and firm age confirms that organizational effectiveness depends on genuine internal capabilities, not merely structural positioning (Donaldson, 2001). The near-significant negative performance gap for agriculture-sector startups relative to ICT/Technology firms further supports contingency arguments that environmental characteristics moderate the returns to management investments.

Fourth, by demonstrating that the management practice hierarchy is robust across both uncontrolled and controlled analytical specifications, this study establishes stronger causal inference than prior studies that did not account for sector and firm age confounds. This methodological contribution strengthens the evidentiary foundation for the theoretical claims advanced and provides a template for future studies examining management practice effects in heterogeneous startup ecosystems.

6.3 Recommendations

Based on the findings of this study, the following recommendations are proposed:

1. **Mandate Strategic Prioritization of Risk Management:** Given that risk management emerged as the single strongest predictor of startup performance both with and without controls, Nigerian startup enterprises must move beyond viewing risk management as a peripheral concern and instead make it a central strategic priority. Founders should allocate 15-20% of initial capital specifically to risk management infrastructure, including legal compliance, insurance coverage, cash reserve buffers, and contingency planning systems. This investment should precede aggressive marketing or expansion spending. Startups should implement structured risk assessment tools such as SWOT analysis, scenario planning, and risk matrices during the business planning phase and review them quarterly. The Nigerian government and incubators should require risk management plans as prerequisites for funding applications. **Specific Policy Instrument:** The Nigerian government, through agencies like SMEDAN, should establish a Risk Management Certification Program offering subsidized training and certification to startup founders. Startups completing this program could receive tax incentives or preferential access to government procurement contracts.

2. **Adopt Sector-Sensitive Management Approaches:** The near-significant performance gap between ICT/Technology and non-ICT sectors — particularly agriculture — underscores the importance of sector-tailored management frameworks. While all management practices benefit startups across sectors, the magnitude of these benefits may be amplified in ICT/Technology contexts due to structural advantages. Policymakers and incubators should therefore develop sector-specific support programs that address the unique risk management challenges facing agricultural startups (e.g., weather and commodity price risk management tools), manufacturing ventures (e.g., supply chain risk management), and

service enterprises (e.g., reputational and compliance risk management). The government should establish Agri-Tech Innovation Hubs that provide agricultural startups with management training, access to precision agriculture technologies, and risk mitigation tools specifically designed for Nigeria's agricultural value chain.

3. Leverage Operational Experience Through Structured Mentorship: The significant effect of years of business operation ($\beta = .142$, $p = .024$) on startup performance highlights the value of accumulated experience. However, not all startups can wait years to gain this experience organically. Ecosystem stakeholders should therefore create structured mechanisms to transfer experiential knowledge from mature startups to early-stage ventures. Incubators should establish peer-mentorship programs pairing startups with 4-6 years of operation (the most common tenure in this study) with those in their first year, ensuring systematic transfer of risk management, innovation, and talent management insights. The government should offer fiscal incentives to experienced founders who formally mentor early-stage startups for a minimum of one year.

4. Systematize Talent Management Practices: Entrepreneurs ought to invest in comprehensive talent management strategies to cultivate talented and motivated workforces. Given resource constraints, Nigerian startups should adopt lean talent management approaches, including compelling employer branding emphasizing learning opportunities and equity participation, Employee Stock Ownership Plans (ESOPs) with meaningful equity stakes and clear vesting schedules, structured Individual Development Plans for each employee with quarterly skill-building goals, and retention mechanisms such as stay interviews, flexible work arrangements, and recognition programs. Nigerian universities should establish Startup Internship Tax Credits where students interning at registered startups receive tuition rebates while startups receive payroll tax exemptions for intern compensation.

5. Build Systematic Innovation Capabilities: Startups ought to foster cultures of creativity and innovation through structured systems rather than ad-hoc approaches. Specific interventions include adopting a modified innovation time allocation model (10% time) for employees to explore new ideas, implementing systematic customer feedback loops through monthly surveys and NPS tracking, establishing quarterly cross-functional innovation sprints using design thinking methodologies, and joining innovation networks to access external ideas beyond internal R&D capacity. The Federal Government should create an Innovation Voucher Program providing startups with vouchers redeemable for services from approved research

institutions, design firms, and technology providers to subsidize innovation investments for cash-constrained ventures.

6. Adopt Integrated Management Systems: Startup founders should recognize that the three dimensions of entrepreneurial management practices are complementary and should be integrated rather than addressed in isolation. Holistic dashboards should track key performance indicators across all three domains: risk metrics (cash runway, customer concentration), innovation metrics (new features launched, customer satisfaction scores), and talent metrics (employee engagement scores, turnover rates). Incentive systems should reward behaviors supporting all three domains, and quarterly strategic reviews should assess progress across all three management dimensions simultaneously.

7. Reform the Entrepreneurial Ecosystem: The Nigerian entrepreneurial ecosystem must be fortified by systemic reforms including regulatory streamlining (reducing business registration timelines to under seven days through digitization), access to capital (establishing a Government-backed Venture Capital Fund with initial capitalization of N50 billion), infrastructure development (investing in reliable electricity, broadband, and transportation), and tax incentives (extending Pioneer Status Incentive to five years for technology startups and introducing R&D tax credits). Establish a Startup Legal Clinic Program providing pro-bono legal services to startups on incorporation, contracts, IP protection, and regulatory compliance.

Suggestions for Future Research

Future Research should examine several critical questions in the following areas to contribute to knowledge:

1) Longitudinal Effects: A 3-5 years longitudinal study can be conducted to track how changes in management practices over time correlate with startup performance trajectories. Specifically, investigators should examine whether the performance premium of years of operation (documented in this study at $\beta = .142$) increases or diminishes as firms mature, and whether risk management capabilities established early provide sustained advantages or whether their relative importance shifts toward innovation and talent management in later stages.

2) Sector-Stratified Analysis: Future studies should explicitly test whether the hierarchy of management practice importance (risk > innovation > talent) documented in this study holds within individual sectors — particularly comparing ICT/Technology startups against agricultural and manufacturing ventures. The near-significant sector effects documented here suggest that sector-stratified analysis may reveal meaningfully different management competency profiles across industries.

3) Comparative Studies: Cross-national comparative studies examining whether the hierarchy of management practice importance identified in Nigeria holds across other Sub-Saharan African countries (Kenya, Ghana, South Africa) or whether institutional context differences alter these relationships would extend the generalizability and boundary conditions of these findings.

4) Mediation and Moderation Analysis: Future research should examine whether years of business operation moderates the relationship between management practices and performance (i.e., whether experienced startups derive greater performance gains from the same level of management investment), and whether sector membership moderates the relative returns to risk management versus innovation management.

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