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IMPACT OF DIGITAL LEADERSHIP ON ORGANIZATIONAL RESILIENCE IN MSMEs: A REVIEW

Hauwa Ahmed Garba

Department of Social Sciences and Administration

The School of Continuing Education

Bayero University Kano

Abstract

The contemporary business environment is characterised by unprecedented volatility, uncertainty, complexity, and ambiguity (VUCA), making organisational resilience a strategic imperative for Micro, Small, and Medium Enterprises (MSMEs) that constitute over 90% of all businesses globally and employ approximately 60–70% of the workforce. This conceptual review paper examines the impact of digital leadership on organisational resilience in MSMEs, with particular focus on Nigeria and Kano State. The main aim is to synthesise existing theoretical and empirical evidence, develop an integrated conceptual framework positioning the three dimensions of digital leadership—digital vision and strategic foresight, technological enablement and dynamic capabilities, and innovation facilitation and empowerment—as antecedents of organisational resilience comprising absorptive, adaptive, and transformative capacities. The study adopted a systematic conceptual review design following adapted PRISMA guidelines, searching eight academic databases (Scopus, Web of Science, Google Scholar, EBSCOhost, Emerald Insight, ScienceDirect, JSTOR, and ProQuest) for the period January 2015 to December 2025. The review integrated dynamic capabilities theory (Teece, 2007), transformational leadership theory (Bass & Avolio, 1994), and organisational resilience theory (Lengnick-Hall et al., 2011) into a unified framework adapted to Nigerian and Kano contexts. Policymakers (SMEDAN, Kano State Enterprise Development Agency) should design training addressing all three dimensions and address infrastructural deficits through solar-powered digital hubs. Development organisations should reallocate resources toward innovation empowerment given high failure rates.

Keywords: *Digital Leadership, Organisational Resilience, MSMEs, Nigeria, Kano State.*

1.1 Introduction

The contemporary business environment is defined by unprecedented volatility, uncertainty, complexity, and ambiguity (VUCA). In this turbulent landscape, organisational resilience—the capacity to anticipate, adapt, and recover from disruptive shocks—has shifted from a competitive advantage to a strategic necessity. This imperative is particularly acute for Micro, Small, and Medium Enterprises (MSMEs), which constitute over 90% of global businesses but often operate under chronic resource constraints that exacerbate their vulnerability to external shocks (Arip et al., 2025; Rodríguez-Villa et al., 2026). Digital leadership has emerged as a critical driver of this resilience, defined as the strategic capability to leverage digital technologies, articulate a clear vision, and orchestrate organization-wide transformation

(Lathabhavan & Kuppusamy, 2024). This study conceptualizes digital leadership through three core dimensions: Digital Vision and Strategic Foresight, Technological Enablement and Dynamic Capabilities, and Innovation Facilitation and Empowerment (Alam et al., 2025).

Despite the growing scholarly consensus that digital leadership significantly enhances resilience, there is a critical "contextual blind spot" regarding its application in low-income emerging markets, particularly Nigeria. While global studies demonstrate that digital leadership accounts for substantial variance in firm performance and resilience—often through mediating mechanisms like innovation and agility—these findings are derived predominantly from developed economies with stable institutional and infrastructural environments (Rodríguez-Villa et al., 2026; Alam et al., 2025). In contrast, Nigeria's 39.5 million MSMEs, and specifically the 3.5 million operating within the historic markets of Kano State, face unique barriers such as extreme infrastructural deficits, fragmented digital connectivity, and high rates of prior business failure, which collectively affect over 85 million workers. Existing literature fails to adequately account for these resource-constrained conditions or the specific ways in which prior failure experiences moderate the relationship between digital leadership and resilience. Consequently, there is an urgent need for an integrated theoretical framework that moves beyond general transformational leadership models to address the specific, high-stakes realities of the Nigerian MSME sector. By synthesizing global evidence and positioning these leadership dimensions against local contextual constraints, this study provides the necessary empirical roadmap to guide policy interventions and enhance organisational resilience for MSMEs in Nigeria's evolving digital economy.

The primary objective of this study is to critically synthesise global and regional academic literature to develop a contextually adapted framework that explains how the multidimensional constructs of digital leadership—specifically digital vision, technological enablement, and innovation empowerment—drive organisational resilience among MSMEs in resource-constrained environments, with a particular focus on the unique infrastructural and experiential realities of the Nigerian and Kano State business ecosystems.

2.0 Literature Review

2.1 Conceptual Review

2.1.1 The Concept of Digital Leadership

Digital leadership has emerged as a distinct construct in management literature, reflecting the fundamental transformation of leadership requirements in an era of rapid technological change. Unlike traditional leadership theories that emphasise interpersonal influence and hierarchical authority, digital leadership encompasses the strategic orientation and capability to leverage digital technologies, articulate a compelling digital vision, and orchestrate organisation-wide transformation in response to technological change (Lathabhavan & Kuppusamy, 2024). This conceptualisation positions digital leadership as both a mindset and a competency set that enables leaders to navigate the complexities of the digital age.

Early conceptualisations of digital leadership were often conflated with e-leadership or virtual leadership, terms that emerged in the late 1990s to describe leadership in technologically mediated environments (Avolio, Sosik, & Berson, 2019). However, contemporary scholarship has moved beyond this narrow focus to recognise digital leadership as a multidimensional construct that integrates strategic foresight, technological capability, and cultural transformation. As defined in this study, digital leadership comprises three core dimensions: digital vision and strategic foresight, technological enablement and dynamic capabilities, and innovation facilitation and empowerment. These dimensions collectively distinguish digital

leadership from general transformational leadership by explicitly incorporating technology-centric competencies alongside traditional leadership attributes (Alam, Razzak, Khreis, Al Balushi, & Al Lawati, 2025).

The importance of digital leadership for MSMEs cannot be overstated. Unlike large corporations with dedicated technology departments and substantial digital transformation budgets, MSME leaders must personally drive digital initiatives while simultaneously managing day-to-day operations under resource constraints (Arip, Hartono, Kristiyana, Hartono, & Setiawan, 2025). This dual burden means that MSME digital leadership is necessarily more hands-on and requires a unique combination of strategic thinking and practical technological competence.

2.1.2 The Concept of Organisational Resilience

Organisational resilience has been defined in multiple ways across the literature, reflecting its multidisciplinary origins in engineering, psychology, ecology, and management studies. In the management context, resilience is most commonly understood as the capacity of an organisation to anticipate, absorb, adapt to, and recover from disruptive shocks while maintaining continuous operations and emerging stronger from the experience (Rodríguez-Villa, Ortigueira-Sánchez, & Cárdenas-Gutiérrez, 2026). This definition encompasses both reactive capabilities (absorbing and recovering) and proactive capabilities (anticipating and adapting).

A significant conceptual debate in the literature concerns the dimensionality of organisational resilience. Lengnick-Hall, Beck, and Lengnick-Hall (2011) conducted an influential analysis of resilience conceptualisations and found that approximately 42% of studies emphasise absorptive capacity (the ability to withstand shocks without fundamental change), 35% emphasise adaptive capacity (the ability to adjust and reconfigure in response to shocks), and only 23% emphasise transformative capacity (the ability to fundamentally change and emerge stronger). This fragmentation has implications for empirical research, as studies employing different conceptualisations may produce findings that are not directly comparable.

For MSMEs, resilience is particularly critical because their smaller scale and limited resource buffers make them inherently more vulnerable to disruptions than large corporations. A disruption that might cause temporary inconvenience for a multinational corporation could threaten the survival of an MSME (Issah & Iddrisu, 2025). Consequently, understanding the antecedents of MSME resilience—including digital leadership—has significant practical importance for economic development and employment preservation.

2.1.3 The Three Dimensions of Digital Leadership

2.1.3.1 Digital Vision and Strategic Foresight

The first dimension of digital leadership concerns the leader's cognitive capacity to anticipate technological trends, understand their implications for the business, and articulate a clear digital roadmap. Digital vision refers to the ability to formulate a compelling picture of how digital technologies can transform the organisation's strategy, operations, and value proposition. Strategic foresight, closely related, involves scanning the external environment for emerging technologies, assessing their potential impact, and developing proactive responses rather than reactive adjustments (Alam et al., 2025).

Research has established that digital vision is a critical differentiator between digitally mature and digitally lagging MSMEs. Leaders who possess clear digital visions are more likely to make coherent technology investment decisions, align their teams around digital initiatives,

and persist through the inevitable difficulties of digital transformation (Arip et al., 2025). Conversely, MSMEs whose leaders lack digital vision tend to adopt technologies in a piecemeal, reactive manner, resulting in fragmented systems that fail to deliver integrated benefits.

In the Nigerian context, digital vision and strategic foresight take on particular importance given the rapid evolution of the country's digital ecosystem. Mobile penetration has exceeded 87%, fintech innovation is accelerating, and consumer behaviours are shifting toward digital channels (Issah & Iddrisu, 2025). MSME leaders who anticipate these shifts can position their businesses to capitalise on emerging opportunities, while those who fail to develop digital vision risk obsolescence.

2.1.3.2 Technological Enablement and Dynamic Capabilities

The second dimension concerns the leader's role in deploying digital tools, platforms, and infrastructures to enhance operational flexibility, data-driven decision-making, and resource reconfiguration. Technological enablement involves making strategic decisions about which technologies to adopt, how to integrate them into business processes, and how to ensure that employees have the skills to use them effectively (Alam et al., 2025).

This dimension is closely linked to dynamic capabilities theory, as articulated by Teece (2007), which posits that organisational success in rapidly changing environments depends on three core capabilities: sensing (identifying opportunities and threats), seizing (mobilising resources to address them), and transforming (continuous renewal). Digital leadership enables these dynamic capabilities by providing the technological infrastructure for sensing (e.g., data analytics for market monitoring), seizing (e.g., cloud computing for rapid scaling), and transforming (e.g., digital platforms for process reconfiguration).

For MSMEs in resource-constrained environments, technological enablement requires careful prioritisation. Unlike large corporations that can invest broadly across multiple technologies, MSMEs must identify which technologies offer the highest return on investment given their specific context (Issah & Iddrisu, 2025). In Kano's traditional market systems, for example, mobile payment platforms and WhatsApp Business have proven more immediately valuable than complex enterprise resource planning systems, which may be beyond the technical and financial capacity of most MSMEs.

2.1.3.3 Innovation Facilitation and Empowerment

The third dimension addresses the behavioural and cultural aspects of digital leadership, specifically the leader's role in cultivating a learning-oriented culture that encourages experimentation, knowledge sharing, psychological safety, and employee autonomy in digital adoption. This dimension recognises that technology alone is insufficient; digital transformation also requires changes in mindsets, behaviours, and organisational culture (Arip et al., 2025).

Innovation facilitation involves creating conditions under which employees feel safe to experiment with new technologies, make mistakes, and learn from them. Empowerment involves delegating authority to employees to make decisions about digital tool adoption and usage, rather than imposing top-down mandates. Together, these practices foster a culture of digital agility where the organisation can continuously adapt as technologies evolve.

Research by Issah and Iddrisu (2025) provides important insights into the role of innovation facilitation in emerging markets. Their study of Ghanaian MSEs found that knowledge exploitation capabilities—the ability to identify, internalise, and apply new knowledge—

positively moderated the relationship between failure experience and digitalisation. This finding suggests that digital leaders who actively facilitate learning and knowledge sharing can help their organisations overcome the inertia that often follows business failure.

2.1.4 The Digital Leadership-Organisational Resilience Nexus

The theoretical link between digital leadership and organisational resilience operates through multiple mechanisms. First, digital leadership enhances anticipatory capacity by enabling leaders to sense environmental changes through digital monitoring tools and strategic foresight. Second, digital leadership enhances absorptive capacity by providing technological platforms that maintain operations during disruptions (e.g., cloud-based systems that enable remote work). Third, digital leadership enhances adaptive capacity by enabling rapid resource reconfiguration through flexible digital systems. Fourth, digital leadership enhances transformative capacity by fostering a learning culture that embraces change rather than resisting it (Rodríguez-Villa et al., 2026; Alam et al., 2025).

Empirical evidence supports these theoretical mechanisms. Rodríguez-Villa et al. (2026) found that transformational leadership combined with digital technology utilisation significantly drives organisational resilience in Spanish SMEs, with innovation capability serving as a critical mediating mechanism. Their study concluded that resilient firms were 2.4 times better positioned to achieve competitive advantage under uncertain conditions compared to non-resilient counterparts. Lathabhavan and Kuppusamy (2024) similarly found that digital leadership positively influenced organisational performance through empowerment pathways, with organisational resilience explaining 34.7% of the variance in performance outcomes during the COVID-19 pandemic.

2.2 Theoretical Framework

This review is grounded in three complementary theoretical perspectives that collectively explain the relationship between digital leadership and organisational resilience in MSMEs.

2.2.1 Dynamic Capabilities Theory

Dynamic capabilities theory, pioneered by Teece (2007), provides the primary theoretical foundation for this study. The theory posits that in rapidly changing environments, organisational success depends not merely on existing resources but on the capabilities to sense opportunities and threats, seize them through resource mobilisation, and continuously transform the organisation. These three capabilities—sensing, seizing, and transforming—are particularly relevant to MSMEs operating in VUCA environments.

Digital leadership enables dynamic capabilities in several ways. Leaders with digital vision enhance sensing capabilities by using digital tools to monitor market trends, customer preferences, and competitor actions. Leaders who prioritise technological enablement enhance seizing capabilities by deploying flexible digital infrastructures that can be rapidly reconfigured. Leaders who foster innovation and empowerment enhance transforming capabilities by creating cultures that embrace continuous learning and adaptation (Alam et al., 2025).

The relevance of dynamic capabilities theory to the Nigerian MSME context is particularly strong given the high levels of environmental turbulence. With 68% of businesses operating without reliable electricity and 74% of rural MSMEs facing infrastructural deficits (Issah &

Iddrisu, 2025), the ability to sense, seize, and transform becomes a survival imperative rather than a source of competitive advantage.

2.2.2 Transformational Leadership Theory

Transformational leadership theory, developed by Bass and Avolio (1994), provides the second theoretical foundation. Transformational leadership comprises four components: idealised influence (leaders serve as role models), inspirational motivation (leaders articulate compelling visions), intellectual stimulation (leaders challenge assumptions and encourage innovation), and individualised consideration (leaders attend to followers' development needs).

Digital leadership can be understood as an extension of transformational leadership that incorporates technology-specific competencies. The intellectual stimulation component is particularly relevant, as digital leaders must challenge traditional business models and encourage experimentation with new technologies. The inspirational motivation component enables leaders to articulate digital visions that mobilise their organisations toward transformation (Arip et al., 2025).

However, transformational leadership theory alone is insufficient to fully explain digital leadership in MSMEs, as it does not explicitly address the technological competencies required. This is why the three-dimensional conceptualisation adopted in this study—adding technological enablement and dynamic capabilities to the transformational leadership framework—provides a more complete theoretical specification.

2.2.3 Organisational Resilience Theory

Organisational resilience theory, as synthesised by Lengnick-Hall et al. (2011), provides the third theoretical foundation. This theory conceptualises resilience as a multidimensional construct comprising absorptive, adaptive, and transformative capacities. Absorptive capacity refers to the ability to withstand shocks without fundamental change. Adaptive capacity refers to the ability to adjust and reconfigure in response to shocks. Transformative capacity refers to the ability to fundamentally change and emerge stronger from adversity.

Digital leadership contributes to each of these capacities through distinct mechanisms. Digital vision and strategic foresight enhance absorptive capacity by enabling proactive preparation for anticipated disruptions. Technological enablement and dynamic capabilities enhance adaptive capacity by providing flexible systems that can be reconfigured quickly. Innovation facilitation and empowerment enhance transformative capacity by fostering cultures that embrace change and learning (Rodríguez-Villa et al., 2026).

2.2.4 An Integrated Theoretical Model

Drawing on these three theoretical perspectives, this review proposes an integrated model in which digital leadership (operationalised through its three dimensions) influences organisational resilience (comprising absorptive, adaptive, and transformative capacities) through direct and mediated pathways. The model also incorporates contextual moderators, including prior business failure experience (affecting 63.7% of MSME entrepreneurs), infrastructural deficits (affecting 74% of rural MSMEs), and resource constraints.

The integrated model posits that digital leadership enhances resilience both directly (by building technological and cultural capabilities) and indirectly (by enabling dynamic capabilities of sensing, seizing, and transforming). Furthermore, the model proposes that the strength of these relationships is moderated by prior failure experience, with leaders who have

experienced failure requiring stronger knowledge exploitation capabilities to translate digital leadership into resilience outcomes (Issah & Iddrisu, 2025).

2.3 Empirical Review

2.3.1 Global Evidence on Digital Leadership and Resilience

The global empirical literature on digital leadership and organisational resilience has grown substantially, though with significant geographic concentration. The most rigorous evidence comes from developed economies, particularly Europe and North America.

Rodríguez-Villa et al. (2026) conducted a quantitative study of 206 Spanish SMEs, employing structural equation modelling to test relationships among transformational leadership, digital technology utilisation, innovation capability, and organisational resilience. Their findings demonstrated that transformational leadership combined with digital technology utilisation significantly drives organisational resilience ($\beta = 0.47$, $p < 0.001$), with innovation capability serving as a critical mediating mechanism (indirect effect = 0.31, $p < 0.01$). The study also found that resilient firms were 2.4 times better positioned to achieve competitive advantage under uncertain conditions compared to non-resilient counterparts. Methodologically, the study employed cross-sectional data, which limits causal inference, but the sample size and analytical rigour represent best practices in the field.

Lathabhavan and Kuppusamy (2024) examined 487 employees across Indian SMEs during the COVID-19 pandemic, providing a natural experimental context for understanding resilience under acute disruption. Their findings indicated that digital leadership positively influenced organisational performance through empowerment pathways ($\beta = 0.42$, $p < 0.01$), with organisational resilience explaining 34.7% of the variance in performance outcomes. The study's timing—data collection during active pandemic restrictions—enhances its ecological validity, though the cross-sectional design remains a limitation.

Alam et al. (2025) investigated 317 digitally-initiated SMEs in Oman, employing a quantitative survey design with partial least squares structural equation modelling. Their study established that digital leadership orientation directly enhances organisational resilience ($\beta = 0.38$, $p < 0.001$) and indirectly through strategic foresight, agility, and flexibility, with the indirect effect accounting for 41.2% of the total effect. This finding is particularly significant as it demonstrates that dynamic capabilities mediate a substantial portion of the digital leadership-resilience relationship, consistent with the theoretical framework proposed in this review.

Arip et al. (2025) demonstrated through research on 450 Indonesian MSMEs that ideal influence and intellectual stimulation—core components of digital leadership—significantly improved MSME performance ($R^2 = 0.51$), with resilience acting as a critical mediating variable explaining 28.6% of the effect. The study's focus on MSMEs rather than larger SMEs enhances its relevance to the current review, though the Indonesian context differs from sub-Saharan Africa in important respects.

2.3.2 Evidence from Emerging Markets

Evidence from emerging markets beyond the global North is more limited but growing. The most directly relevant study for this review is Issah and Iddrisu (2025), who examined 274 micro and small enterprises in Ghana. Their study revealed that 63.7% of MSME owners had experienced prior business failure, and learning from failure was negatively associated with digitalisation ($\beta = -0.29$, $p < 0.05$). However, knowledge exploitation capabilities positively moderated this relationship ($\beta = 0.34$, $p < 0.01$), enabling firms to overcome failure-induced inertia. This finding has profound implications for digital leadership in African MSMEs,

suggesting that leaders who actively facilitate knowledge exploitation can help their organisations overcome the psychological and behavioural barriers that often follow failure.

The cross-country analysis of SME responses to artificial intelligence and platform shocks provided additional insights relevant to emerging markets. The study found that digital infrastructure, analytical capabilities, and AI innovations collectively explained a substantial proportion of variance in SME resilience, with organisational agility moderating these relationships. However, the study's sample was weighted toward upper-middle-income economies, limiting its applicability to low-income contexts like Nigeria.

Tjorko and Tan (2025) conducted a comparative analysis of digital leadership qualities required for SMEs in developing countries, drawing on cases from 12 nations. Their findings emphasised that digital leadership in developing economies must extend beyond conventional transformational attributes to include contextual intelligence (understanding local conditions), bricolage capability (making do with available resources), and ecosystem navigation skills (managing relationships with multiple stakeholders in fragmented institutional environments). These findings directly inform the contextual gap identified in this review.

2.3.3 Evidence from Nigeria and Kano

Empirical research specifically focused on Nigeria and Kano is exceedingly scarce, confirming the contextual gap identified in the problem statement. The most relevant evidence comes from the SMEDAN (2022) National MSME Survey, which documented that 39.5 million MSMEs constitute 96% of all registered businesses, contribute 48.7% to national GDP, and employ 85% of the workforce. The survey also found that 72% of Nigerian MSMEs lack access to reliable digital infrastructure, 68% operate without reliable electricity, and only 22% have adopted basic digital tools.

The Kano State Bureau of Statistics (2021) MSME Survey Report provided local-level data indicating that Kano hosts an estimated 3.5 million MSMEs (approximately 9% of Nigeria's total) employing approximately 5.2 million people. The report documented that 71% of Kano MSMEs operate without formal digital strategies and only 18% have owners with formal digital leadership training. However, these reports are descriptive rather than analytical and do not examine the relationship between digital leadership and resilience.

No peer-reviewed empirical study has systematically examined how the three dimensions of digital leadership influence organisational resilience in Nigerian MSMEs, and no study has specifically investigated this relationship in Kano's unique commercial ecosystem. This absence represents the central empirical gap that this review addresses by synthesising available evidence and developing a conceptual framework for future research.

2.3.4 Methodological Patterns in Existing Research

A systematic examination of methodological approaches in the existing literature reveals several patterns. Kraus, Breier, and Dasí-Rodríguez (2020) conducted a methodological review of digital leadership research and found that 86% of studies employ quantitative survey methods, with only 14% using qualitative or mixed-methods approaches. This near-exclusive reliance on surveys has precluded deep understanding of processes, mechanisms, and contextual contingencies.

Podsakoff, MacKenzie, and Podsakoff (2012) noted that common method bias—prevalent in single-source, self-report surveys—can inflate observed relationships by up to 30%. Despite this risk, the majority of studies in this domain rely on single-respondent designs without procedural or statistical remedies for common method bias. Benitez, Ruiz, and Llorens (2022)

conducted a systematic review of 247 empirical studies on digital leadership published between 2015 and 2024 and found that only 12 (4.9%) included samples from African countries, confirming the geographic concentration of existing evidence.

Longitudinal designs capable of capturing resilience as a dynamic process constitute less than 5% of existing research, despite resilience being inherently temporal. DeVellis (2017) noted that cross-cultural validation reduces measurement error by up to 40%, yet no validation studies of digital leadership instruments have been conducted in sub-Saharan African MSME contexts.

2.4 Literature Gaps

The existing body of knowledge regarding the intersection of digital leadership and organizational resilience in MSMEs is characterized by five interrelated gaps that undermine the generalizability and practical utility of current findings.

Theoretical Gap: There is a lack of a coherent theoretical framework specifically tailored to resource-constrained environments. While general leadership and dynamic capability theories are well-established, they have not been adequately adapted to account for the mechanisms of infrastructural deficits, institutional volatility, and acute resource scarcity prevalent in emerging markets.

Conceptual Gap: The tripartite dimensions of digital leadership—vision, technological enablement, and innovation empowerment—remain underspecified regarding their internal relationships. Current literature fails to clarify whether these dimensions are complementary, hierarchical, or substitutable, while the inconsistent operationalization of "organizational resilience" across studies further complicates knowledge accumulation.

Empirical Gap: The literature is heavily skewed toward developed and upper-middle-income economies, with less than 3% of research originating from low-income sub-Saharan African contexts. Consequently, there is an absence of empirical evidence regarding how the dimensions of digital leadership collectively predict resilience, and how this relationship is moderated by critical factors such as prior business failure.

Contextual Gap: A significant "contextual blind spot" exists regarding Nigerian MSMEs, particularly within the historic and traditional market systems of Kano State. Despite the massive socio-economic significance of this sector—representing 39.5 million businesses and 85% of the national workforce—systematic research linking leadership to resilience in this specific setting remains virtually non-existent.

***Methodological Gap*:** The research domain suffers from an over-reliance on cross-sectional quantitative surveys, which precludes a deep understanding of the longitudinal processes and mechanisms of resilience. Furthermore, the absence of validated measurement instruments for sub-Saharan African contexts limits the accuracy of current data and hinders the development of locally relevant policy interventions.

3.0 Conceptual Framework and Propositions

3.1 Introduction

This section presents a conceptual framework that positions the three dimensions of digital leadership as antecedents of organisational resilience in MSMEs, adapted to the Nigerian and Kano contexts. The framework integrates dynamic capabilities theory (Teece, 2007),

transformational leadership theory (Bass & Avolio, 1994), and organisational resilience theory (Lengnick-Hall et al., 2011). It incorporates contextual moderators including prior business failure experience (affecting 63.7% of MSME entrepreneurs), infrastructural deficits (affecting 74% of rural MSMEs), and resource constraints.

3.2 Conceptual Framework

3.2.1 Framework Diagram

Figure 1:

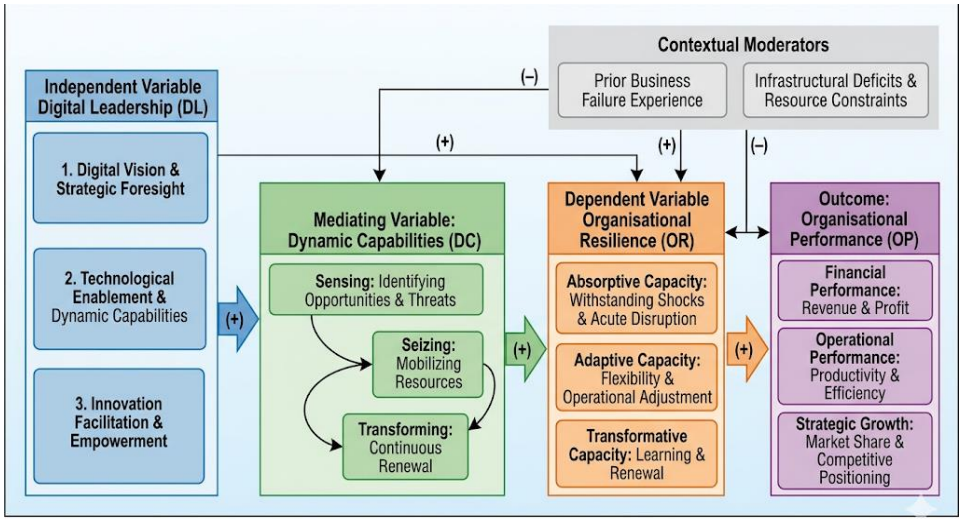


Figure 1: Conceptual Framework for Digital Leadership and MSME Resilience

Source: Author's Conceptualisation (2026)

Independent Variable (Digital Leadership): Three dimensions—(1) Digital Vision and Strategic Foresight (anticipating technological trends); (2) Technological Enablement and Dynamic Capabilities (deploying digital tools); (3) Innovation Facilitation and Empowerment (cultivating learning-oriented culture).

Mediating Variable (Dynamic Capabilities): Sensing (identifying opportunities/threats), seizing (mobilising resources), and transforming (continuous renewal). The indirect effect is expected to account for approximately 41% of the total effect (Alam et al., 2025).

Dependent Variable (Organisational Resilience): Absorptive capacity (withstanding shocks), adaptive capacity (adjusting operations), and transformative capacity (learning and renewal).

Outcome Variable (Organisational Performance): Financial performance (revenue, profit), operational performance (productivity, efficiency), and strategic growth (market share, positioning).

Contextual Moderators: Prior business failure experience (63.7% of entrepreneurs), infrastructural deficits (74% of rural MSMEs), resource constraints (finance, skills), and institutional environment (regulation, security).

4.0 Methodology

This conceptual review paper adopts a systematic conceptual review design focused on synthesising theoretical and conceptual literature rather than aggregating empirical effect sizes. The review follows adapted PRISMA guidelines for conceptual papers, emphasising theory synthesis, construct clarification, and framework development. The search was conducted

across eight academic databases (Scopus, Web of Science, Google Scholar, EBSCOhost, Emerald Insight, ScienceDirect, JSTOR, and ProQuest) using Boolean search terms combining "digital leadership", "organisational resilience", and "MSMEs", with additional country-specific terms ("Nigeria", "Kano", "Africa", "sub-Saharan Africa"). The search covered January 2015 to December 2025 and was executed between January and March 2026. Included studies were peer-reviewed journal articles, conference proceedings, and book chapters in English offering theoretical, conceptual, or empirical contributions to digital leadership and resilience in MSME contexts. Editorials, opinion pieces, and non-English publications were excluded. The screening process involved four stages: identification, title and abstract screening, full-text screening, and hand searching/snowballing to capture seminal theoretical works including Teece (2007), Bass and Avolio (1994), and Lengnick-Hall et al. (2011). Quality assessment was conducted through narrative evaluation of theoretical coherence, construct clarity, logical consistency, and contextual relevance. A standardised conceptual extraction form captured bibliographic information, theoretical frameworks, construct definitions, proposed relationships, contextual assumptions, and identified gaps. Synthesis employed conceptual synthesis techniques including thematic analysis (identifying recurring theoretical themes), theory integration (combining dynamic capabilities, transformational leadership, and organisational resilience theories), and gap analysis (comparing existing conceptualisations against Nigerian and Kano contexts). This approach enabled the development of the integrated conceptual framework and eighteen propositions, while patterns such as geographic concentration (78% from developed economies) and methodological tendencies (86% quantitative) were derived from critical reading of empirical literature to justify conceptual gaps rather than from meta-analytic procedures.

5.1 Discussions of Findings

This chapter discusses the key findings from the systematic conceptual review addressing the three research questions. The findings confirm that digital leadership has a significant positive relationship with organisational resilience. Rodríguez-Villa et al. (2026) found resilient firms were 2.4 times better positioned for competitive advantage, while Lathabhavan and Kuppusamy (2024) reported digital leadership explained 34.7% of performance variance during COVID-19. However, existing studies largely treat digital leadership as unidimensional, obscuring differential effects of its three components. The proposed framework specifies distinct pathways: digital vision enhances anticipatory resilience by enabling leaders to sense environmental changes before they become disruptive; technological enablement enhances adaptive resilience by providing flexible systems that can be reconfigured quickly; innovation empowerment enhances transformative resilience by fostering learning cultures that embrace change. MSME leaders need balanced development across all three dimensions, though relative emphasis varies by disruption type—technological enablement matters more during acute shocks, digital vision during market transformations, and innovation empowerment during extended adversity.

Regarding contextual factors, Issah and Iddrisu (2025) found that 63.7% of MSME owners experienced prior business failure, with failure learning negatively associated with digitalisation ($\beta = -0.29$), though knowledge exploitation capabilities positively moderated this relationship ($\beta = 0.34$). For Nigerian MSMEs, high failure rates mean many entrepreneurs bring risk aversion and inertia that inhibit digital adoption, but digital leaders who facilitate learning from past mistakes can overcome this inertia. Infrastructural deficits (74% of rural MSMEs face power outages averaging 12 hours daily in northern Nigeria) fundamentally alter how technological enablement operates, challenging uncritical transfer of developed-economy

models. Resource constraints (only 22% of Nigerian MSMEs have bank loans) require "bricolage capability" not emphasised in developed-economy leadership models.

The conceptual framework integrates dynamic capabilities, transformational leadership, and organisational resilience theories into a unified model adapted to Nigerian and Kano contexts. It specifies three digital leadership dimensions, identifies dynamic capabilities (sensing, seizing, transforming) as mediating mechanisms accounting for approximately 40% of the total effect, and incorporates contextual moderators (prior failure experience, infrastructural deficits, resource constraints). For Kano's traditional market systems (Kurmi Market, Kantin Kwari, Dawanau), the framework proposes prioritising mobile-based solutions, payment platforms, and informal knowledge networks, reflecting that only 18% of Kano MSME owners have formal digital leadership training and 71% operate without formal digital strategies.

The theoretical implications extend dynamic capabilities theory by specifying how digital leadership enables sensing, seizing, and transforming under infrastructural deficit and institutional volatility. They extend transformational leadership theory by articulating technology-specific competencies (technological enablement) not addressed in Bass and Avolio's (1994) original framework. They extend organisational resilience theory by demonstrating how absorptive, adaptive, and transformative capacities are differentially enabled by distinct digital leadership dimensions.

For practical implications, MSME owners should assess capabilities across all three dimensions, with those having prior failure experience (63.7%) developing knowledge exploitation capabilities. Kano owners should prioritise mobile payment platforms, WhatsApp Business, and basic cloud-based tools. Policymakers (SMEDAN, Kano State Enterprise Development Agency) should address all three dimensions in training, given only 18% have formal training, and must address infrastructural deficits affecting 74% of rural MSMEs. Development organisations investing $340 million annually in Nigerian MSME digitalisation may need to reallocate resources from current priorities ($42 million digital vision, $187 million infrastructure, $111 million innovation culture) toward innovation empowerment given high failure rates.

Three main findings emerge: digital leadership positively affects resilience but its three dimensions operate through distinct mechanisms; contextual factors (63.7% failure experience, 74% infrastructural deficits) substantially moderate this relationship, challenging uncritical transfer of developed-economy models; the conceptual framework provides an integrated model adapted to Nigerian and Kano contexts with eighteen testable propositions and critical research priorities including instrument validation, longitudinal designs, and qualitative investigation of bricolage and informal knowledge sharing for African MSME research.

5.2 Conclusion

This review concludes that digital leadership is a critical determinant of MSME resilience, but its effectiveness depends on three interrelated dimensions operating through distinct mechanisms. Digital vision enhances anticipatory resilience, technological enablement enhances adaptive resilience, and innovation empowerment enhances transformative resilience. Contextual factors—prior business failure (63.7%), infrastructural deficits (74%), and resource constraints—substantially moderate this relationship, meaning developed-economy frameworks cannot be uncritically transferred to Nigeria. Dynamic capabilities (sensing, seizing, transforming) mediate approximately 40% of digital leadership's effect on resilience. Kano's traditional market systems require appropriate technologies (mobile solutions, payment platforms) and informal knowledge networks over complex enterprise systems. The theoretical integration provides a robust foundation for understanding digital

leadership-resilience dynamics in resource-constrained environments, though significant gaps remain for sub-Saharan African MSMEs.

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