

Strategic Innovation and Organizational Effectiveness in Nigeria's Telecommunication Sector

NENBEE, Gbimoie Simeon, PhD and *AMEH, Jackson Owoicho

Graduate School of Economics and Management, University of Port Harcourt, Rivers State Nigeria

*Corresponding Author

DOI: <https://doi.org/10.51244/IJRSI.2026.1307000282>

Received: 02 August 2026; Accepted: 07 August 2026; Published: 14 August 2026

ABSTRACT

Despite substantial investments in digital transformation, network modernization, and technological innovation, many telecommunications firms in Nigeria continue to experience operational inefficiencies due largely to service quality challenges, customer dissatisfaction, and inconsistent organizational performance. This paper critically examines the role of strategic innovation in enhancing organizational effectiveness through a synthesis of contemporary theoretical and empirical literature, with particular reference to Nigeria's telecommunications industry. The review is anchored on the trio of Resource-Based View, Knowledge-Based View, and Dynamic Capabilities Theory. Findings indicate that organizational effectiveness extends beyond financial performance to include operational efficiency, customer satisfaction, organizational resilience, innovation capability, and strategic agility. The review further reveals that strategic innovation enhances organizational effectiveness primarily through the development of dynamic organizational capabilities and effective adaptation to institutional conditions. The paper identifies conceptual, theoretical, methodological, and contextual gaps in existing literature and proposes an integrated conceptual framework to guide future empirical research on strategic innovation and organizational effectiveness in Nigeria's telecommunications sector.

Keywords: Strategic innovation; organizational effectiveness; telecommunications industry.

INTRODUCTION

Nigeria's telecommunications industry is a major contributor to economic growth, digital transformation, financial inclusion and electronic commerce. Yet many firms remain organizationally ineffective despite substantial investments in technology and infrastructure. Persistent service-quality problems, network failures, customer dissatisfaction, cybersecurity risks, rising operating costs and uneven performance show that infrastructure expansion has not consistently produced organizational effectiveness (NCC, 2025; ITU, 2024).

At customer level, weak effectiveness appears in dropped calls, poor coverage, slow connectivity, billing errors and inadequate complaint handling. At firm level, it appears in high costs, infrastructure constraints, regulatory uncertainty, foreign-exchange pressures and difficulty sustaining competitive advantage. These outcomes indicate that technological investment alone is insufficient (Gyamfi et al., 2024).

Prior studies attribute organizational performance to leadership, culture, human-resource capability, digital transformation, knowledge management, organizational learning and dynamic capabilities. However, findings remain inconsistent in turbulent industries where firms facing similar conditions report different outcomes. Prolonged inefficiency reduces customer retention, profitability, reputation and responsiveness, while also weakening investor confidence and the sector's contribution to national digital development. Existing solutions often examine individual drivers in isolation and emphasize product or technological innovation. Less attention has been given to strategic innovation as an integrated capability for renewing business models, processes, technologies and market positioning, particularly in emerging economies and Nigeria's telecommunications industry.

This creates an important gap concerning how strategic innovation improves effectiveness under technological disruption, institutional complexity, infrastructure constraints and intense competition. Strategic innovation is the deliberate renewal of strategies, business models, processes, market approaches and capabilities to create sustainable value (Markides, 1997; Pisano, 2015). Contemporary scholarship therefore emphasizes not only resource ownership but also firms' capacity to learn, innovate and reconfigure capabilities as conditions change (Teece et al., 1997; Teece, 2018).

1.2 Research Gap and Study Contribution

There is a growing body of literature on innovation and organizational performance, but significant gaps exist in describing how strategic innovation leads to organizational effectiveness, especially in technology-intensive emerging economies. From a conceptual point of view, a large part of the literature addresses innovation in terms of individual dimensions such as digital transformation, technology innovation, business model innovation or service innovation. Nevertheless, these approaches provide useful insights, but they present a fragmented account of how businesses combine multiple forms of innovation into a coherent strategic capability that enhances organizational success. Moreover, the organizational effectiveness is mostly assessed only from the perspective of financial performance, while modern competitive environments require a broader consideration of operational efficiency, customer satisfaction, innovation performance, organizational resilience and adaptability, as well as sustainable competitive advantage.

In theory, prior research have largely drawn on the Resource-Based View (RBV), Knowledge-Based View (KBV) and Dynamic Capabilities Theory (DCT), although these viewpoints are generally used separately. RBV describes how distinctive resources are the basis for competitive advantage, while KBV is concerned with knowledge generation, integration and application. However, neither perspective fully explains how enterprises continuously renew these resources and expertise in the face of fast technological and environmental change. To overcome this constraint, DCT emphasizes sensing, grabbing, and changing skills (Barney, 1991; Grant, 1996; Teece, 2007). However, little emphasis has been paid to integrating these views to understand the mechanisms through which strategic innovation transforms resources and knowledge into many dimensions of organizational effectiveness.

From an empirical and contextual perspective, the extant research generally supports the positive relationship between innovation and organizational success, however the conclusions are different depending on organizational capabilities, leadership, strategic alignment, and institutional conditions. Most of this evidence emanate from rich economies or generic cross-industry settings limiting its immediate relevance to Nigeria's telecoms sector. This is especially true in the Nigerian environment where telecommunications companies are trying to manage simultaneous technology upheaval, infrastructure constraints, regulatory pressure, macroeconomic instability, fierce rivalry and fast changing customer expectations. The current empirical evaluation of the article also shows the preponderance of non-Nigerian research and the inadequate attention given to multidimensional metrics of efficacy.

Thus, the present study contributes to the literature by offering an integrated conceptual explanation of the strategic innovation–organizational effectiveness link in Nigeria's telecommunications sector. It conceptualizes strategic innovation as business-model, process, digital and service innovation; conceptualizes dynamic organizational capabilities, including organizational learning, knowledge integration, strategic agility and resource reconfiguration, as the mechanisms through which strategic innovation creates organizational value; and acknowledges institutional conditions as important influences on this relationship. The study expands the straightforward direct relationship in the existing innovation-performance literature by integrating RBV, KBV, and DCT into this framework, and provides a theoretically grounded foundation for future empirical research in Nigeria and similar emerging market settings.

Accordingly, this paper asks: What are the conceptual and theoretical foundations of strategic innovation and organizational effectiveness? What relationship exists between them in telecommunications? What conceptual model best explains the influence of strategic innovation on organizational effectiveness in Nigeria's telecommunications sector?

LITERATURE REVIEW

2.1.1 Organizational Effectiveness: Beyond Performance Metrics

The notion of organizational effectiveness has shifted from a largely output-based construct emphasizing productivity, profitability, and goal achievement to a multidimensional construct that includes operational efficiency, customer satisfaction, employee competence, innovation, flexibility, organizational resilience, and long-term sustainability (Kaplan & Norton, 1996; Richard et al., 2009). This trend suggests a rising realization that financial indicators are largely backward looking and may not provide sufficient information on an organization's ability to adjust to future technological, competitive and institutional developments. Especially in technology-intensive businesses, organizational efficiency is increasingly linked to the ability to combine actual resources with knowledge, technological capabilities and organizational adaptability (Teece, 2018).

Recent empirical research supports this broader approach but also finds that the factors of efficacy are interrelated rather than independent. Using data from 246 organizations and partial least-squares structural equation modelling, Barba-Sánchez et al. (2024) demonstrated that IT capabilities positively influenced firm performance thru digital orientation and digital transformation. Of note, their findings imply that technology does not automatically lead to better outcomes. Technological capabilities add organizational value when they are strategically focused and embedded in organizational transformation. Similarly, Rubio-Andrés et al. (2025) link digital-transformation strategy to innovation and organizational success, thereby supporting the notion that strategic direction impacts the degree to which digital investment is converted into broader organizational results.

These data dispute the assumption that organizational effectiveness is a financial consequence or a direct result of technology deployment. The increasing literature suggests alternatively that effectiveness is a product of complementarities among technological resources, strategic orientation, organizational skills and institutional conditions. For example, survey data from 476 firms revealed that big-data capabilities and organizational agility mediated the association between digital transformation and innovation performance (Xu et al., 2024). Their findings show that organizational capabilities can act as mechanisms to translate technology change into organizational outcomes, rather than just being independent predictors of performance.

This distinction is especially important for telecommunications firms, as technological assets may be quickly diffused or replicated, while differences in capability development, service delivery, organizational learning and strategic responsiveness may result in more lasting differences in effectiveness. Additional contextual support is provided by African evidence. Similarly, Muchungu and Mutua (2024) in their study on open innovation and organizational performance in Kenya's telecoms industry, highlight the role of organizational characteristics in determining innovation-performance results. However, there is still relative scarcity of empirical evidence on the interplay of these multidimensional dimensions of effectiveness with strategic innovation in the telecommunications sector of Nigeria. Therefore, the present study conceptualizes organizational effectiveness as the ability of an organization to accomplish operational efficiency, customer satisfaction, innovative performance, resilience, adaptability and sustainable competitive advantage which is different from firm performance.

2.1.2 Strategic Innovation: Concept Development and Contemporary Perspectives

Similarly, the strategic innovation literature has moved away from a view of innovation as primarily technological invention or new-product development to a broader view of innovation as an organizational capability that involves the deliberate renewal of strategies, business models, processes, technologies and customer-value propositions. Strategic innovation is described by Markides (1997) as a challenge to existing assumptions of competition. Later, Crossan and Apaydin (2010) showed that innovation encompasses interrelated processes of idea development, implementation and value creation across organizational levels. Pisano (2015) states that innovation creates sustainable value only when it is integrated with company capabilities, governance structures and competitive strategy. These approaches, collectively, set apart strategic innovation from mere technological development, by emphasizing the intentional rejuvenation of the organization.

Recent empirical evidence showing efficacy of innovation is increasingly determined by complementary competencies extending this notion. Barba-Sanchez et al. (2024) demonstrate that digital transformation contributes to performance via digital orientation and IT competencies rather than solely through technology adoption. Xu et al. (2024) argue that big-data capabilities and organizational agility moderate the relationship between digital transformation and innovation success. This is important because it challenges a simplistic innovation-performance relationship and suggests a capability-mediated process: organizations realize stronger returns from strategic innovation when they can interpret technological change, mobilize knowledge, coordinate resources and reconfigure organizational processes.

However, there is a significant tension in literature. Although strategic innovation is typically linked with adaptability, value creation and enhanced performance, this relationship is not automatic or standard. Firms that make identical investments in technology have quite diverse results because of variances in strategic alignment, management capability, organizational learning and institutional context. Rubio-Andrés et al. (2025), for instance, consider digital-transformation strategy as a significant mechanism linking technological transformation, innovation and organizational effectiveness, supporting the argument that strategic intent and organizational capability shape performance outcomes. This research supports Dynamic Capabilities Theory by demonstrating the value of innovation is not just in gaining new technology, but in continuously identifying opportunities, grabbing them and altering organizational resources.

This is a particularly difficult environment for the argument, since artificial intelligence, cloud computing, digital platforms, data analytics, 5G technology and quickly evolving customer expectations are constantly reshaping competitive conditions in the telecoms business. Evidence from African telecoms also demonstrates that the setting matters for innovation-performance correlations. Muchungu and Mutua (2024) established that open-innovation methods affect the performance of organizations in the telecommunications industry in Kenya. They emphasized the importance that organizational elements play in the process. More recent evidence from Algeria Telecom likewise examines dynamic capabilities as the mechanism linking digital transformation with organizational sustainability, supporting the view that technological transformation produces durable outcomes through organizational capability development rather than technological investment alone.

Increasingly the literature conceptualizes strategic innovation as a systematic organizational competence rather than a collection of separate innovative initiatives, combined. However, the extant literature is still fragmented across digital transformation, technology innovation, business model innovation and open innovation, with relatively little integration of these characteristics into an integrated strategic innovation framework. This fragmentation is especially apparent in emerging market telecommunications. Therefore, the present study considers business-model innovation, process innovation, digital innovation and service innovation as interrelated parts of strategic innovation and investigates their role in improving organizational effectiveness thru dynamic organizational capacities.

2.2 Theoretical Literature

Strategic management theory has progressively shifted from explaining performance through resource ownership to examining how organizations create, integrate and renew resources and knowledge under changing conditions. This progression frames the relationship between strategic innovation and organizational effectiveness.

2.2.1 Resource-Based View (RBV)

The Resource-Based View (RBV) is an important concept in strategic management that shifts the focus of organizational effectiveness from external market positioning to the unique internal resources and capabilities of firms. The resource-based view (RBV) argues that sustainable competitive advantage is based on the possession of valuable, rare, inimitable and non-substitutable resources (Wernerfelt, 1984; Barney, 1991; Peteraf, 1993). It differs from the industrial organization view that focuses on the industry structure and external environment. The RBV is rooted in the work of Penrose (1959) who proposed that firms are heterogeneous bundles of resources, and that their growth is a function of the ability of the management to use and combine

different resources efficiently. This methodology was systematized by Wernerfelt (1984) who moved the focus of study from products and markets to basic resource bases. Barney (1991) identified the strategic characteristics, later embodied in the VRIN framework, that characterize resources that enable sustained competitive advantage. This view was further developed by Peteraf (1993), who specified the specific prerequisites for the maintenance of competitive rents. The Resource-Based View has been extended by recent studies to include new forms of resources, considering the effects of digital transformation, artificial intelligence and volatile markets (Barney et al., 2021; D'Oria et al., 2021). The RBV is built on two basic premises: Resource diversity: Different combinations of tangible and intangible assets are present among companies, which accounts for the variation in performance among companies within the same industry. Resource immobility: The strategic assets cannot be easily moved or copied and consequently the competitive advantage can be sustained.

The Resource-Based View of organizational resources includes physical resources, financial resources, human resources, organizational culture, technological resources, intellectual property, managerial skills, and relational resources. Recent RBV research has developed these into further classifications such as digital assets, data analytics, artificial intelligence, organizational learning and knowledge resources which are particularly relevant in knowledge-intensive industries such as telecoms. Barney's VRIN (later VRIO) model explains the evaluative nature of the Resource-Based View (RBV): Resources must enable the capturing of opportunities or the management of hazards. Scarce, rivals should have few assets, resources are difficult to imitate due of causal ambiguity, unique historical conditions, or complex social processes. Companies should have adequate systems and processes to take advantage of these assets (Barney, 1995).

This approach is also used for modern assessments of digital and innovation competencies which emphasize the importance of the RBV in technology-based enterprises. The Resource Based View (RBV) has been very influential in the field of strategic management by providing a new reason for persistent differences in performance between firms, based on their distinctive resource endowments. It supports research on strategic innovation, organizational learning, intellectual capital, human resource management and digital transformation. The efficiency of the organization in telecommunications depends on several elements, such as the developed infrastructure, technological competence, customer information, the innovation potential, and the qualified personnel. Recent developments of the Resource-Based View have focused on resource orchestration, managerial competences, and value creation. The present approach only accepts that strategic resources create value when managers can efficiently acquire, absorb and reconfigure them in uncertain environments (Barney et al., 2021; D'Oria et al., 2021). Empirical studies demonstrate that digital capabilities, artificial intelligence, sustainability, and organizational resilience are important strategic resources, particularly in fast-changing industries. The RBV has come under attack for being static and offers no insight into how companies revitalize, reorganize, and reconfigure resources in an ever-changing environment (Priem & Butler, 2001; Teece, 2007). This is a major challenge for businesses like telecommunications where the capability to compete increasingly depends on the capability to continue innovating and to be flexible. These critiques have given rise to complementary theories, most notably the Knowledge-Based View and Dynamic Capabilities Theory, that explain how firms evolve and renew their resource bases to maintain effectiveness in the face of change. Finally, despite the fact that the Resource-Based View is sometimes hampered by its initial static assumptions, it remains a key to understanding how unique strategic resources can underpin organizational effectiveness as well as a theoretical foundation for further research and application in strategic management and other areas.

2.2.2 Knowledge-Based View (KBV)

The Knowledge-Based View (KBV) was a substantial extension of the Resource-Based View (RBV). The KBV contended that knowledge is the most strategically relevant asset to attain sustainable competitive advantage and organizational success, rather than physical or financial resources. RBV considers knowledge as one of many valuable resources of the business, while KBV emphasizes knowledge as the fundamental source of value creation, innovation and long term organizational performance (Grant, 1996; Kogut & Zander, 1992; Spender, 1996). The thesis states that businesses outperform their competitors because they have better capacities to create, integrate, share, and apply knowledge to solve issues and respond to changing market conditions. Recent studies confirm that in the current digital economy, organizational knowledge has become the main driver of

innovation, agility, and organizational effectiveness, especially in technology-intensive industries such as telecommunications.

The philosophical origins of KBV are grounded in the inadequacies of the RBV to explain the development and sustainability of strategic resources over time. The RBV highlights the significance of valued resources as the foundation of competitive advantage but little is mentioned about the methods via which businesses create, transfer and use knowledge to develop these resources. To address this gap, Kogut and Zander (1992) claimed that enterprises exist because they are more efficient than markets at generating and distributing information. Grant (1996) extended the theory by suggesting that the fundamental task of organizations is to assemble the specialized knowledge that is distributed among individuals into coordinated organizational capabilities. In the same way, Spender (1996) observed that competitive advantage is not only dependent on having information, but also on the organization's ability to embed knowledge in routines, culture and organizational processes. In recent studies, these notions have been elaborated, underlining the increasing importance of digital knowledge, data-driven decision making, organizational learning and knowledge ecosystems for competitive advantage.

A key concept of the KBV is that companies possess two types of complementary knowledge, namely explicit knowledge and tacit knowledge. Explicit knowledge is formalized, codified and easily recorded in manuals, databases, patents, regulations and information systems, and is therefore relatively easy to transfer across organizational units. In contrast, tacit information is located in employees' experience, abilities, intuition and judgment, and is difficult for competitors to duplicate or to replicate (Grant, 1996; Kogut & Zander, 1992). The KBV holds that tacit knowledge is the most important source of sustainable competitive advantage, since it is socially established in organizational routines, cultures and interpersonal connections. Similarly, recent research suggests that organizations that successfully combine tacit and explicit knowledge are more likely to improve their innovation capability, digital transformation, and organizational effectiveness in increasingly knowledge-intensive environments.

Moreover, the KBV underscores the importance of the firm's ability to acquire, integrate, exchange and use knowledge across functional boundaries for the effectiveness of the organization. Rather than seeing information as an individual possession, this approach considers organizations as knowledge integration mechanisms that coordinate specialized skills to achieve collective goals (Grant, 1996; Spender, 1996). Organizational learning, collaborative cultures, cross-functional teams, leadership support, and digital knowledge management systems are the enablers for knowledge integration. These mechanisms are especially significant in the telecommunications sector, where businesses function in contexts of rapid technical change, constant innovation, and severe competition. Thus, the more effective the utilization of organizational knowledge by enterprises, the better they can generate innovative products, improve service delivery, meet consumer needs, and sustain organizational performance.

The KBV's core contribution is an understanding of the link between knowledge and strategic innovation. The theory claims that innovation is essentially a knowledge creation process where organizations generate new ideas, recombine existing knowledge and convert learning into new products, services, technologies and business models (Grant, 1996; Kogut & Zander, 1992). This view is particularly relevant to Nigeria's telecommunications sector where technological innovation, digital delivery of services, artificial intelligence, mobile financial services and customer experience management increasingly depend on organizational learning and integration of knowledge. Empirical research has shown in recent years that effective knowledge management has a significant impact on innovation capability, organizational agility, digital transformation and the overall organizational effectiveness of technology-driven organizations.

Critical appraisal. The Knowledge-Based View has made a significant contribution to the strategic management literature but has been criticized for conceptual overlap with the Resource-Based View and for limited explanation of how organizations adapt knowledge under rapidly changing environmental conditions (Grant, 1996; Spender, 1996). However, critics claim that the theory explains well why knowledge is a strategic asset but pays less attention to the dynamic managerial processes needed to continuously refresh, reconfigure and transform organizational knowledge in unpredictable contexts. However, KBV is very important, because it defines knowledge as the most strategically valuable resource of an organization and presents a convincing

argument for the relationship between knowledge management, strategic innovation and organizational effectiveness. These limitations later contributed to the development of Dynamic Capabilities Theory that extends the KBV by explaining how organizations continuously sense opportunities, seize them and transform their knowledge and resources to sustain competitive advantage in dynamic business environments (Teece, 2007; Teece, 2018).

2.2.3 Dynamic Capabilities Theory (DCT)

Dynamic Capabilities Theory (DCT) is one of the most significant strategic management ideas for understanding how businesses gain and maintain competitive advantage in fast-moving business contexts. Unlike the Resource-Based View (RBV), which is centred on the possession of valuable resources, and the Knowledge-Based View (KBV), which emphasizes knowledge as the most strategic asset of the firm, DCT describes how organizations constantly renew, integrate and reconfigure these resources and knowledge to respond to environmental change (Teece, Pisano, & Shuen, 1997; Teece, 2007; Teece, 2018). The theory thus moves the focus from resource ownership to organizational adaptability, stressing that long-term organizational effectiveness depends on a firm's ability to sense emerging opportunities and threats, seize opportunities through strategic decisions, and transform its resource base to stay competitive. Recent literature continues to identify DCT as one of the most comprehensive frameworks to comprehend innovation, resilience, digital transformation, and long-term organizational effectiveness in dynamic sectors.

The Dynamic Capabilities theory was first developed by Teece, Pisano and Shuen (1997) as a reaction to the RBV which was attacked for its essentially static perspective of competitive advantage. The authors suggest that valuable resources are not sufficient to sustain organizational performance in volatile contexts due to the constant shifts in market conditions resulting from technology developments, globalization, changing customer preferences, and competitive disruption. To deal with these issues, organizations require higher-order capabilities that allow them to intentionally generate, extend, and alter their resource base across time (Teece et al., 1997; Teece, 2007; Teece, 2018). Since its introduction, the theory has progressed significantly, and recent evaluations have highlighted its application in digital transformation, international business, organizational resilience, and innovation management. Recent works also show that dynamic capabilities are still relevant to understanding how organizations face uncertainty and obtain improved organizational performance.

The core idea of DCT is that firms functioning in dynamic contexts need to improve skills constantly to react faster than their competitors. Teece (2007) structured these talents into three interrelated dimensions: sensing, grasping and altering (or reconfiguring). Sensing is the ability of the business to sense emerging technologies, market opportunities, customer requirements and competitive threats by means of environmental scanning and strategic intelligence. Seizing means mobilizing resources, making timely investment decisions and adopting new tactics that use discovered opportunities. Transforming is the ongoing renewal, recombination and reconfiguration of organizational resources, structures and processes to preserve strategic congruence with changing environmental conditions (Teece, 2007; Teece, 2018). These three qualities have been continuously confirmed as the key micro foundations via which organizations develop resilience, innovative capability and sustain organizational success by recent empirical and review studies.

The theory of Dynamic Capabilities is of special importance for understanding the relationship between strategic innovation and organizational effectiveness. The theory states that innovation is not just a matter of having valuable resources or knowledge but a result of an organization's ability to combine existing competencies, acquire new knowledge, experiment with new technologies, and change operational routines in response to environmental change (Teece, 2007; Teece, 2018; Eisenhardt & Martin, 2000). In the telecommunications business, technological disruptions, digital platforms, artificial intelligence, 5th generation (5G) networks, cloud computing, and shifting customer expectations are constantly changing the competitive landscape. Firms need strong dynamic capabilities to be competitive. Firms that can sense technology transitions, seize digital possibilities and transform their business models quickly are more likely to achieve greater organizational effectiveness than those that rely simply on current resources or competencies. Likewise, recent studies imply that dynamic capabilities enhance organizational agility, innovative performance, digital transformation, and international competitiveness in technology-intensive industries.

Critical analysis. The Dynamic Capabilities Theory is considered by many to be the most suitable theoretical lens to explain strategic innovation. This is because it takes the best of the Resource-Based View and the Knowledge-Based View and addresses the key weaknesses of both. Unlike the RBV, which is concerned with the possession of valuable resources and the KBV, which is concerned with the creation and integration of knowledge, DCT provides an explanation of the dynamic processes by which organizations continuously renew resources, capabilities, and knowledge to sustain organizational effectiveness (Teece, 2007; Teece, 2018). However, the theory has been critiqued for the conceptual ambiguity, the operationalization problems of dynamic capabilities and the difficulty to separate dynamic capabilities from conventional organizational capabilities (Eisenhardt & Martin, 2000). Notwithstanding these criticisms, DCT is the most comprehensive and contemporary framework for this study because it directly explains how strategic innovation enables organizations to continuously adapt, innovate and improve organizational effectiveness in dynamic sectors such as Nigeria's telecommunications industry.

2.2.4 The Gap in Theoretical Literature

RBV, KBV and DCT offer complementary explanations of organizational effectiveness. RBV emphasizes valuable strategic resources; KBV identifies knowledge creation and integration as the basis of innovation; and DCT explains how resources and knowledge are continually reconfigured under change (Barney, 1991; Grant, 1996; Teece, 2007). Their progression is therefore more useful than treating them as competing perspectives.

RBV explains performance differences through valuable, rare, inimitable and organizationally embedded resources (Wernerfelt, 1984; Barney, 1991; Peteraf, 1993), but offers limited explanation of resource renewal. KBV advances the analysis by emphasizing organizational knowledge and learning (Kogut & Zander, 1992; Grant, 1996; Spender, 1996), yet similarly says less about continuous transformation under turbulence.

DCT bridges these gaps by shifting attention from what firms possess to what they can do with their resources and knowledge. Its sensing, seizing and transforming processes explain adaptation to technological disruption, market uncertainty and changing customer needs (Teece et al., 1997; Teece, 2007, 2018).

This distinction is decisive in Nigerian telecommunications. Network infrastructure and accumulated knowledge remain important, but firms must also adopt emerging technologies, redesign processes and create new service models. DCT therefore provides the strongest account of how strategic innovation builds effectiveness through organizational learning, strategic flexibility and capability renewal.

Accordingly, DCT is adopted as the principal theoretical foundation, with RBV and KBV supplying complementary explanations of the resources and knowledge being transformed. This integrated position links resource management, knowledge development, strategic renewal and innovation capability to organizational effectiveness.

The theoretical gap is that these perspectives are often applied separately and tested mainly in stable or developed-economy contexts. An integrated application is needed to explain how strategic innovation produces effectiveness through dynamic capabilities while Nigerian telecommunications firms operate under regulatory, infrastructural and technological constraints.

2.3 Empirical Literature Review

Empirical research generally associates strategic innovation with operational efficiency, customer satisfaction, competitive positioning, learning and long-term performance (Crossan & Apaydin, 2010; Volberda et al., 2014; Teece, 2018). Digital transformation, business-model innovation and service innovation are especially important in technology-intensive sectors (Verhoef et al., 2021; Warner & Wäger, 2019). However, results vary because similar innovation strategies can produce different outcomes when firms differ in leadership, complementary capabilities and institutional conditions (Eisenhardt & Martin, 2000; Pisano, 2015; Teece, 2007).

D'Oria et al. (2021) synthesized more than 200 studies on strategic resources, managerial capabilities, innovation and organizational effectiveness. Their analysis indicates that innovation outcomes depend less on possessing

large resource stocks than on managers' ability to coordinate and deploy those resources. The study supports treating strategic innovation as a capability, although its broad cross-industry evidence does not resolve Nigeria-specific telecommunications conditions.

Cillo and Verona (2022) examined strategic innovation and digital transformation in knowledge-intensive firms. They found that combining digital technologies, organizational learning and business-model renewal improved adaptability and operational efficiency. Their findings reinforce the view that strategic innovation involves organizational renewal, not product development alone.

Clauss et al. (2019) used survey data from more than 400 European industrial and service firms to examine business-model innovation. Structural-equation results linked innovation with organizational agility, customer-value creation and financial performance, leading the authors to recommend embedding innovation in strategic planning. The evidence is relevant to telecommunications but comes from a different institutional context.

These studies show that strategic innovation can enhance agility, resilience and effectiveness, yet they focus mainly on developed economies and broad industrial settings. Nigeria's telecommunications sector has distinctive regulatory, infrastructural and technological conditions, creating a contextual gap.

Porkodi et al. (2023) examined digital employee experience and organizational performance in Oman's telecommunications sector. Work environment, culture, training, technology, digital tools and leadership support were strongly associated with performance. Although the findings highlight the human and organizational complements to technology, they cannot be transferred directly to Nigeria's institutional and infrastructural setting.

Barba-Sánchez et al. (2024) tested relationships among IT capabilities, digital orientation, digital transformation and firm performance. IT capabilities improved performance through strategic digital orientation and transformation, showing that technology must be aligned with strategy and organizational capability. However, the study's broad firm-level focus gives limited attention to telecommunications-specific conditions.

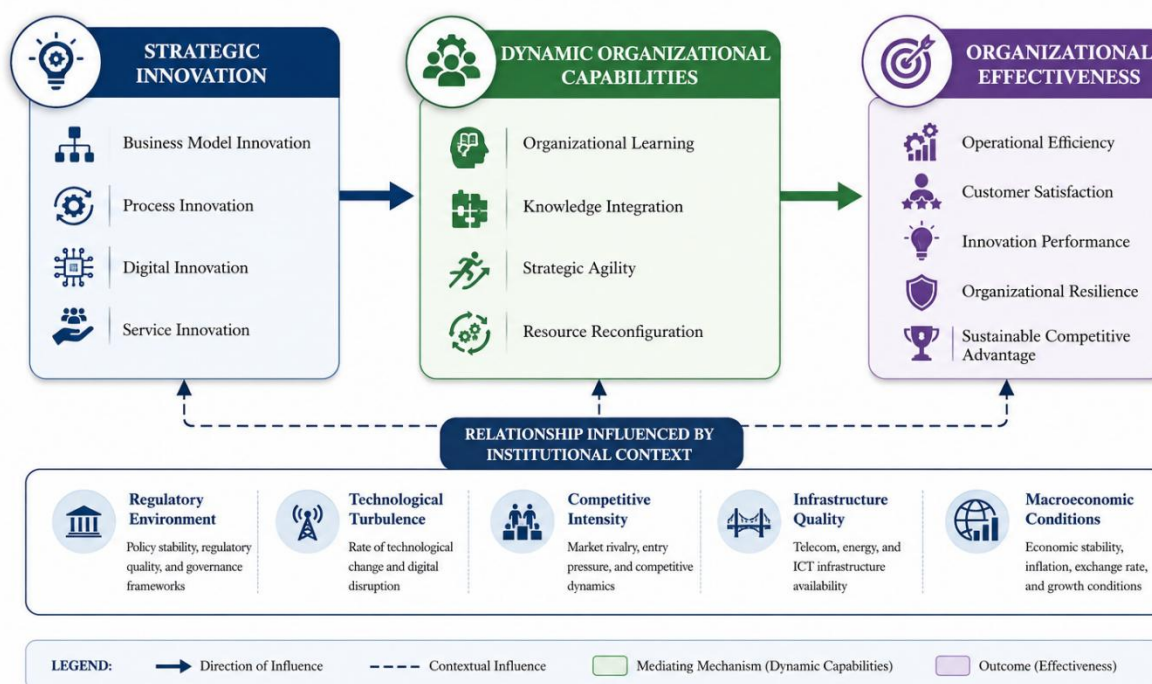
Al Jabri et al. (2024) surveyed 236 respondents in the United Arab Emirates and found that dynamic capabilities improved enterprise agility through IT alignment, with digital transformation shaping the relationship. The study demonstrates the importance of aligning business strategy, IT resources and transformation initiatives, but does not address Nigerian telecommunications firms.

Zareie et al. (2024) used textual analysis of corporate reports to link digital transformation with firm value. The relationship was strengthened by organizational capital, governance, information quality and firm age, indicating that digital investment requires supportive organizational conditions to improve performance.

Collectively, recent studies link effectiveness to digital capacity, employee experience, agility, governance, strategic alignment and organizational capital. Yet most were conducted outside Nigeria and operationalized effectiveness mainly as financial performance or agility, leaving contextual and measurement gaps concerning productivity, adaptability, service quality and goal attainment.

Innovation investments alone do not explain sustained effectiveness. Value emerges when firms possess complementary capabilities such as organizational learning, absorptive capacity, strategic agility, knowledge integration and effective leadership (Felin & Powell, 2016; Teece, 2018; Zahra & George, 2002). Institutional conditions also matter: regulatory quality, infrastructure, macroeconomic stability and the wider innovation environment influence returns from innovation (OECD, 2018; World Bank, 2023). These contingencies are especially important in Nigeria, where policy uncertainty, foreign-exchange pressures, cybersecurity risks, energy costs and infrastructure constraints shape telecommunications performance.

Figure 2.1: Proposed Integrated Conceptual Framework



Source: Developed by the researcher based on synthesis of Teece (2007, 2018); Eisenhardt & Martin (2000); Zahra & George (2002).

The reviewed evidence does not support a simple direct relationship between strategic innovation and organizational effectiveness. Similar innovation strategies generate different outcomes because firms vary in their ability to convert ideas into durable capabilities. The proposed framework therefore treats strategic innovation as the driver of renewal and dynamic capabilities—organizational learning, strategic agility, knowledge integration and resource reconfiguration—as the mechanism translating innovation into effectiveness. Institutional conditions, including regulation, technological turbulence, competition and infrastructure, shape this conversion process.

The framework integrates RBV, KBV and DCT: resources and knowledge provide the foundation, while dynamic capabilities explain their continuing renewal. Organizational effectiveness is therefore an outcome of interaction among strategic innovation, capability development and institutional adaptation. This perspective offers a stronger basis for future empirical research in Nigeria's telecommunications sector than linear innovation-performance models.

DISCUSSION OF FINDINGS

The review establishes that strategic innovation is a multidimensional capability encompassing business-model innovation, digital transformation, organizational learning and strategic renewal. Organizational effectiveness similarly extends beyond finance to operational efficiency, customer satisfaction, innovation capability, resilience and sustainable advantage. The relationship is contingent: innovation improves effectiveness when organizations develop dynamic capabilities and when institutional conditions support implementation.

3.1 Findings on Strategic Innovation

Strategic innovation has expanded from product and technological innovation to a continuing capability that includes business-model, process, service and organizational innovation. It enables firms to respond proactively to technological disruption, market change and evolving customer expectations.

Its success depends on integrating resources, knowledge, leadership and dynamic capabilities. Technology produces stronger outcomes when combined with learning, knowledge management and adaptive leadership; digital transformation is therefore part of strategic renewal rather than a stand-alone investment.

For Nigerian telecommunications firms, institutionalizing strategic innovation is essential to service improvement, efficiency, customer value and sustained effectiveness amid technological change, competition and regulatory pressure.

In particular, the findings suggest that operators in Nigeria's telecommunications sector are increasingly operating in a highly dynamic and technology-driven environment characterized by rapid technological change, evolving consumer preferences, intense competition and regulatory pressures. Thus, long-term organizational success will depend on the ability of telecommunication firms to institutionalize strategic innovation as a core organizational capability that continuously sustains service improvement, operational efficiency, customer value creation, and long-term organizational effectiveness.

3.2 Findings on Organizational Effectiveness

Organizational effectiveness is multidimensional, encompassing strategic goal attainment, operational efficiency, customer satisfaction, employee productivity, innovation, adaptability and sustainability. Firms with strong digital capabilities, skilled employees, effective leadership and aligned strategies achieve better outcomes because resources create value only when managed toward strategic objectives.

In Nigeria's telecommunications sector, effectiveness consequently depends on continual adaptation to technology, customer expectations and competition, supported by capable people, suitable systems and coherent strategy.

3.3 Findings on the Relationship between Strategic Innovation and Organizational Effectiveness

The conceptual and empirical literature indicates a positive relationship between strategic innovation and organizational effectiveness. Innovation can improve operations, customer satisfaction, competitiveness and sustainability, but its contribution depends on alignment with leadership, knowledge management, culture, digital capability and strategic objectives. Innovation should therefore be embedded in strategic management rather than undertaken as isolated projects.

DCT best explains this conditional relationship: firms that sense change, seize opportunities and transform resources are more likely to sustain effectiveness than firms relying on existing advantages. For Nigerian telecommunications companies, continuous strategic innovation is therefore both a source of advantage and a determinant of long-term effectiveness.

3.4 Findings from the Theoretical Review

The theoretical review shows that RBV, KBV and DCT provide complementary but distinct explanations of innovation and effectiveness.

RBV identifies the strategic resources underlying advantage but gives limited attention to adaptation. KBV explains how knowledge creation, sharing and application support innovation, but says less about continuous capability renewal. DCT addresses both limitations by explaining how firms sense opportunities, seize them and transform resources and knowledge. It is therefore the most suitable framework for Nigeria's technology-intensive and highly competitive telecommunications sector.

This conclusion aligns with the paper's purpose: explaining how strategic innovation strengthens effectiveness through continuous adaptation to technological, regulatory and customer change.

3.5 Major Implications for Nigeria's Telecommunications Sector

Nigeria's telecommunications firms must move beyond episodic innovation and embed it in corporate strategy. Continuous improvement in services, processes, digital infrastructure, employee capability, customer engagement and knowledge management is required to respond to technological change, competition and regulation.

Firms also need dynamic capabilities for anticipating change, mobilizing opportunities and reconfiguring resources. Regulators and policy makers should support this effort through predictable, innovation-friendly regulation, infrastructure development, investment incentives and collaboration among industry, universities and research institutions.

Together, these actions can improve service quality, efficiency, customer satisfaction, resilience and the sector's contribution to Nigeria's digital development.

CONCLUDING REMARKS

This paper examined how strategic innovation influences organizational effectiveness in Nigeria's telecommunications sector through conceptual, theoretical and empirical literature. Strategic innovation now encompasses business-model, process, service, organizational and digital innovation, while effectiveness includes financial and non-financial outcomes such as efficiency, customer satisfaction, employee productivity, adaptability, innovation capability and strategic goal attainment.

RBV explains the value of distinctive resources and KBV emphasizes knowledge as a strategic asset; however, DCT most fully explains how firms continually adapt and reconfigure resources to sustain effectiveness. Empirical evidence generally shows a positive innovation-effectiveness relationship, but also demonstrates that leadership, learning, digital capability, knowledge management, strategic alignment and institutional conditions determine its strength.

The review therefore concludes that strategic innovation is necessary but not sufficient for organizational effectiveness. Its value is realized through dynamic capabilities and supportive institutional conditions. The scarcity of Nigeria-specific telecommunications evidence justifies future empirical testing of the proposed integrated framework.

RECOMMENDATIONS

1. Nigerian telecommunications firms should institutionalize strategic innovation through sustained investment in research, digital technologies, business-model renewal, process improvement and employee capability, supported by a culture of learning, collaboration and experimentation.
2. Firms should assess organizational effectiveness with balanced financial and non-financial indicators, including service quality, customer satisfaction, operational efficiency, employee productivity, innovation capability, adaptability and sustainability.
3. Innovation initiatives should be aligned with corporate objectives, operating processes, knowledge management, digital transformation and performance systems so that new ideas produce measurable organizational value.
4. Firms should develop dynamic capabilities to sense technological, regulatory and market change, seize emerging opportunities and transform resources accordingly, thereby strengthening resilience and sustained performance.
5. The NCC, telecommunications firms, policy makers, universities and research institutions should collaborate to create an innovation-driven ecosystem through enabling regulation, investment in emerging technologies, applied research and knowledge exchange.

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