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The place of Innovative Capabilities in Driving ICT Firm Growth: A Knowledge-Based View Perspective

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Abstract
The rapid expansion of the Information and Communication Technology (ICT) sector has transformed how firms create value, compete, and achieve sustainable growth, making knowledge and innovation critical drivers of organizational performance. Hence, this study examines the role of innovative capabilities in driving the growth of Information and Communication Technology (ICT) firms, framed through the Knowledge-Based View (KBV). The study adopted a desk-based systematic literature review to synthesize relevant research on knowledge-driven innovation and ICT firm growth. Innovative capabilities are conceptualized as a multidimensional construct comprising knowledge acquisition, knowledge assimilation, knowledge transformation, knowledge exploitation, and technological capability. Based on this review, a conceptual framework is developed to illustrate how these capabilities enable knowledge creation, integration, and application, which collectively underpin firm growth. The study advances theoretically grounded propositions linking each dimension of innovative capabilities to ICT firm growth. It concludes that the effective management of knowledge-based processes and technological resources is central to sustaining growth in ICT firms. Finally, the paper offers theoretical, managerial, and policy implications, providing guidance for future empirical research and strategic decision-making in knowledge-driven innovation contexts.

Keywords: ICT firm growth, Innovation, Innovative capabilities, Knowledge-Based View, Technology.

1. Introduction

The rapid expansion of the Information and Communication Technology (ICT) sector has transformed how firms create and deliver value, making knowledge, innovation, and technological capabilities central to competitive differentiation and sustainable growth. As digital markets evolve, ICT firms are no longer distinguished merely by access to technology but by their ability to develop innovative capabilities that convert knowledge into commercially viable solutions (Teece, 2007; Chesbrough, 2003). In the south east, firm growth has emerged as a critical outcome reflecting market expansion, innovation performance, and long-term competitiveness. Central to achieving this growth are innovative capabilities that shape how firms acquire, integrate, transform, and exploit knowledge resources to generate continuous innovation (Grant, 1996; Wang, 2018).

Anchored under the lens of the Knowledge-Based View (KBV), knowledge is regarded as the most strategically significant resource, while organizational capabilities in managing knowledge underpin sustained competitive advantage (Grant, 1996; Liebeskind,

1996). Within ICT firms, innovative capabilities such as knowledge acquisition, assimilation, transformation, exploitation, and technological capability enable continuous learning, technological adaptation, and innovation-driven growth (El Maalouf & Bahemia, 2023; Yulianto & Supriono, 2023). Consequently, understanding how innovative capabilities translate knowledge into firm growth is essential in explaining growth differences across ICT firms, particularly within rapidly changing digital environments. This study will be of immense benefit to ICT entrepreneurs, managers, policymakers, and researchers, as it provides insights into how innovative capabilities can be developed and leveraged to enhance firm growth and competitiveness in the digital economy.

Empirical studies on innovation and firm performance have predominantly emphasized factors such as research and development (R&D) investment, digital capability (Mittal & Agarwal, 2019), technological adoption, and open innovation practices (Dinh Van Hoang & Nguyen Thi Hien, 2024) as key drivers of competitiveness and growth (Bigliardi et al., 2020). While these studies provide valuable insights, they often focus on isolated innovation dimensions or direct performance outcomes, with limited integration of innovative capabilities as a multidimensional construct grounded in the KBV framework. Moreover, existing research remains heavily concentrated in developed economies (El Maalouf & Bahemia, 2023; Khan, et al., 2019), offering limited conceptual understanding of how innovative capabilities shape ICT firm growth within developing contexts such as Nigeria.

Despite these contributions, prior research has largely overlooked the holistic role of innovative capabilities in linking knowledge processes to ICT firm growth, particularly within emerging economies characterized by infrastructural constraints and volatile market conditions. Hence, this study examines the place of innovative capabilities in driving ICT firm growth, anchored under the lens of the Knowledge-Based View (KBV) theory. In achieving this aim, the study pursues the following specific objectives:

i. To conceptualize innovative capabilities as a multidimensional construct within the Knowledge-Based View framework.
ii. To examine the conceptual relationship between innovative capabilities and ICT firm growth.

2. Literature Review

This study's literature review is organized into two main sections: conceptual review and theoretical review providing an overview of existing knowledge and the theoretical foundations guiding this study on how innovative capabilities drive ICT firm growth, framed through the Knowledge-Based View (KBV) theory.

2.1 Conceptual Review

2.1.1 Innovation and Innovative Capabilities

Innovation refers to the process of generating and implementing new ideas, products, services, or processes that create value and enhance organizational performance (Teece, 2007; Wang, 2018). In the context of firms, innovative capabilities represent the ability to continuously transform knowledge and resources into commercially viable innovations that improve competitiveness and growth. Firms with strong innovative capabilities demonstrate superior adaptability, innovation performance, and growth outcomes (El Maalouf & Bahemia, 2023; Yulianto & Supriono, 2023).

Empirical evidence shows that these innovation processes positively influence productivity, market expansion, and firm growth, particularly in technology-intensive sectors (Bigliardi et al., 2020;

Wang, 2018). Innovative capabilities play a crucial role in enabling ICT firms to maintain competitiveness. Firms with strong innovative capabilities can continuously develop and introduce new digital solutions, adapt to rapidly changing technologies, and penetrate emerging markets (Bigliardi et al., 2020; Wang, 2018).

Empirical studies (West & Bogers, 2014; Chesbrough, 2003). indicate that ICT firms leveraging these capabilities experience higher innovation performance, improved operational efficiency, and sustainable growth trajectories compared to less innovative counterparts In highly dynamic and knowledge-intensive sectors like ICT, the ability to acquire, assimilate, transform, and exploit knowledge, supported by technological resources, directly influences firm growth, market responsiveness, and long-term competitive advantage (El Maalouf & Bahemia, 2023; Khan et al., 2019). Innovative capabilities in this study are conceptualized as follows:

2.1.2 Knowledge Acquisition Capability

Knowledge acquisition capability refers to a firm's ability to identify, source, and obtain valuable knowledge from both internal and external sources that is relevant for innovation and growth (Wang, 2018; Zhang et al., 2019). This capability allows firms to scan their environment, recognize emerging technologies, and gather market or customer insights that can inform product and service development. In ICT firms, effective knowledge acquisition not only enhances opportunity recognition but also supports rapid product development, service innovation, and timely adoption of digital solutions (El Maalouf & Bahemia, 2023; Yulianto & Supriono, 2023). Empirical studies (Wang, 2018; Yulianto & Supriono, 2023) suggest that firms actively investing in knowledge acquisition demonstrate superior innovation performance and improved market responsiveness, which collectively drive firm growth. Thus, it is proposed that:

H_1: ICT firms with strong knowledge acquisition capabilities significantly enhance firm growth.

2.1.3 Knowledge Assimilation Capability

Knowledge assimilation capability reflects a firm's capacity to analyze, interpret, and internalize newly acquired knowledge to make it actionable for innovation and strategic decision-making (Ali et al., 2019; Zhang et al., 2019). It involves translating external knowledge into internal processes, training personnel, and embedding insights into organizational routines. In ICT firms, strong assimilation capability fosters organizational learning, enhances process efficiency, and improves the effectiveness of innovation initiatives (El Maalouf & Bahemia, 2023; Yulianto & Supriono, 2023). Empirical evidence (Ali et al., 2019) indicates that firms that successfully assimilate knowledge can leverage it to accelerate product development, reduce time-to-market, and achieve higher growth outcomes compared to firms with weaker assimilation mechanisms. Thus, it is proposed that:

H_2: ICT firms with strong knowledge assimilation capabilities significantly enhance firm growth.

2.1.4 Knowledge Transformation Capability

Knowledge transformation capability refers to a firm's ability to reconfigure, combine, and adapt existing and newly acquired knowledge to generate novel insights and innovative solutions (Khan et al., 2019). This capability allows firms to modify existing processes, develop new business models, and explore creative applications of technological and managerial knowledge. In ICT firms, knowledge transformation supports technological adaptation, digital innovation, and continuous renewal of

services and solutions, ensuring firms remain competitive in dynamic markets (El Maalouf & Bahemia, 2023; Yulianto & Supriono, 2023). Studies (Khan et al., 2019) have shown that firms with strong transformation capabilities are better able to convert knowledge into actionable innovations, leading to sustained market growth and long-term competitive advantage. Thus, it is proposed that:

H_3: ICT firms with strong knowledge transformation capabilities significantly enhance firm growth.

2.1.5 Knowledge Exploitation Capability

Knowledge exploitation capability denotes a firm's ability to apply, commercialize, and integrate knowledge into new products, services, and business processes (Wang, 2018; Ali et al., 2019). It focuses on translating knowledge into tangible outcomes that enhance firm performance, such as improved productivity, increased sales, or entry into new markets. In ICT firms, effective knowledge exploitation ensures that innovations reach the market efficiently, enabling firms to respond to customer demands and technological changes (El Maalouf & Bahemia, 2023; Yulianto & Supriono, 2023). Empirical studies (Wang, 2018) highlight that firms with strong exploitation capabilities experience higher profitability, market share growth, and operational scalability compared to less capable peers. Thus, it is proposed that:

H_4: ICT firms with strong knowledge exploitation capabilities significantly enhance firm growth.

2.1.6 Technological Capability

Technological capability refers to a firm's ability to acquire, integrate, deploy, and continuously upgrade technological resources and infrastructure to support innovation activities (Zhang et al., 2019; Khan et al., 2019). This includes hardware, software, digital platforms, and technical expertise that enable the firm to develop and deliver innovative products and services. In ICT firms, technological capability enhances digital service delivery, accelerates innovation performance, and supports operational scalability, allowing firms to remain competitive in fast-changing technology environments (El Maalouf & Bahemia, 2023). Empirical evidence (Zhang et al., 2019) shows that firms with strong technological capabilities are better positioned to exploit new market opportunities, adopt emerging technologies, and sustain long-term growth. Thus, it is proposed that:

H_5: ICT firms with strong knowledge technological capabilities significantly enhance firm growth.

2.2 ICT Firms and Growth Dynamics (Conceptualized)

ICT firms occupy a central role in driving digital transformation, shaping innovation ecosystems, and supporting broader economic development (World Economic Forum, 2025). Conceptually, the growth of ICT firms is not merely a function of financial or physical resources but is understood as the outcome of effectively managing knowledge-based resources. This includes the ability to identify market opportunities, develop innovative products or services, adopt new technologies, and scale operations efficiently (El Maalouf & Bahemia, 2023; Yulianto & Supriono, 2023).

From a theoretical standpoint, ICT firm growth is closely linked to the development and deployment of innovative capabilities. By acquiring, assimilating, transforming, and exploiting knowledge, firms can continuously generate novel solutions, respond rapidly to technological changes, and maintain relevance in dynamic markets (Grant, 1996; Nambisan et al., 2017). These knowledge-driven processes facilitate not only product and service innovation but

also operational and managerial improvements that collectively strengthen the firm's strategic positioning and competitiveness. Within this conceptual framework, growth is therefore seen as multi-dimensional, encompassing market expansion, technological adaptation, service diversification, and organizational learning. ICT firms that strategically leverage their knowledge and technological capabilities are theoretically positioned to achieve sustained growth, outperform competitors, and contribute to the advancement of digital economies.

2.3 Conceptual Framework

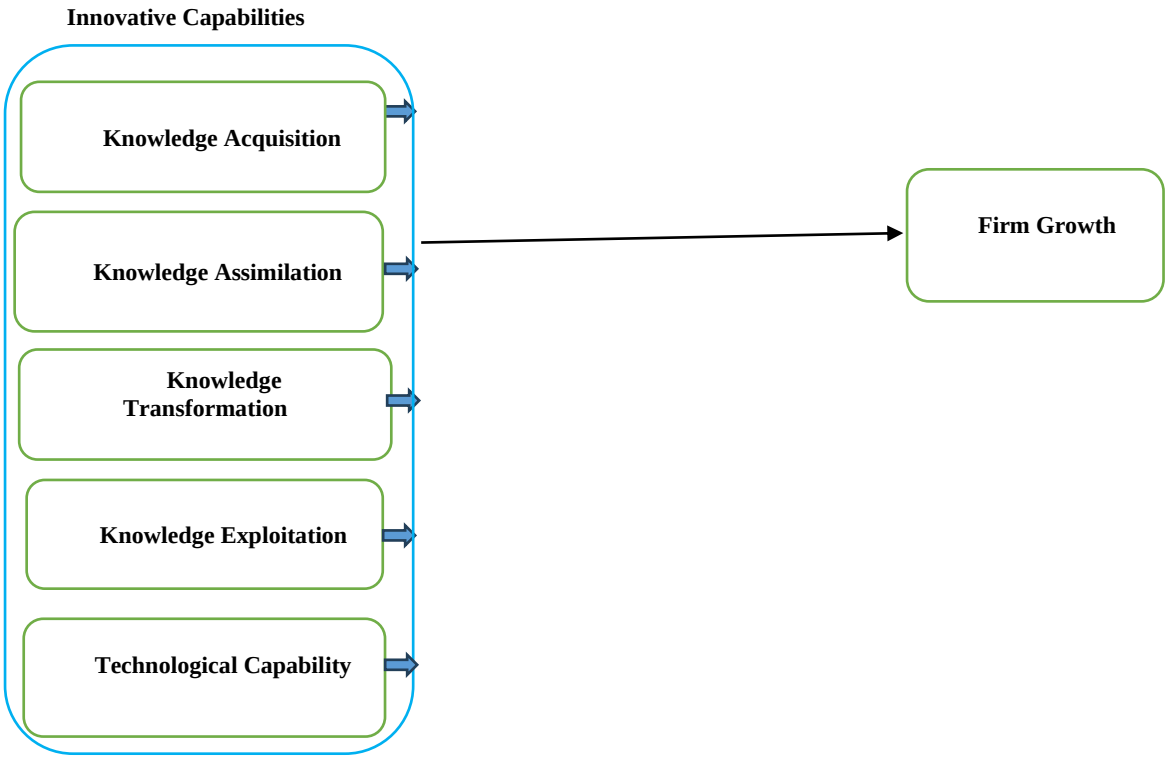

Fig 1: Conceptual framework of Innovative Capabilities.
Source: Authors (2026)

This study proposes a conceptual framework in which innovative capabilities, conceptualized as multidimensional constructs comprising knowledge acquisition, assimilation, transformation, exploitation, and technological capability, exert a direct and positive influence on ICT firm growth. Grounded in the Knowledge-Based View, the framework posits that superior management of knowledge resources constitutes the fundamental mechanism linking innovative capabilities to sustained growth.

2.4 Theoretical Foundation: Knowledge-Based View (KBV)

The Knowledge-Based View (KBV) was advanced by Robert M. Grant in 1996 as an extension of the resource-based view of the firm. The theory emphasizes that knowledge is the most strategically significant resource for achieving sustainable competitive advantage. KBV argues that firms gain superior performance not merely through physical or financial resources but through their ability to create, integrate, and apply knowledge effectively (Grant, 1996; Liebeskind, 1996).

According to KBV, organizational knowledge is often tacit, embedded in routines and processes, and difficult for competitors to imitate. This makes knowledge a unique and valuable source of competitive advantage. In technology-driven industries such as ICT, firms that possess strong innovative capabilities, including knowledge acquisition, assimilation, transformation, exploitation, and technological capabilities, are better positioned to adapt to technological change and sustain growth (Chesbrough, 2003; West & Bogers, 2014).

Grounding this study in the KBV provides a theoretical basis for examining innovative capabilities as knowledge-based resources that drive sustained growth in ICT firms.

3. Methodology

This study adopted a **desk-based literature review** to examine how innovative capabilities drive ICT firm growth, guided by the Knowledge-Based View (KBV). Relevant scholarly sources, including peer-reviewed journal articles, books, and institutional reports on innovative capabilities and ICT firm growth, were systematically reviewed. The approach enabled the study to synthesize existing theoretical and empirical evidence and identify insights on how knowledge-based innovative capabilities contribute to sustained growth in ICT firms.

4. Re-statement of the Study Propositions

Based on the conceptual synthesis of literature, the following propositions are advanced:

i. Knowledge acquisition capability: ICT firms with strong knowledge acquisition capabilities **(**Wang, 2018; Yulianto & Supriono, 2023), able to identify and source valuable knowledge, are expected to enhance innovation and drive firm growth.
ii. Knowledge assimilation capability: Effective knowledge assimilation, through interpreting and internalizing acquired knowledge (Ali et al., 2019; Zhang et al., 2019), likely strengthens organizational learning and supports growth.
iii. Knowledge transformation capability: Firms with robust knowledge transformation capabilities, capable of reconfiguring and combining knowledge into novel solutions (El Maalouf & Bahemia, 2023; Yulianto & Supriono, 2023), are likely to achieve sustained innovation and growth.
iv. Knowledge exploitation capability: Knowledge exploitation, by applying and commercializing knowledge into products, services, and processes (Wang, 2018; Ali et al., 2019), will likely enhance productivity, market reach, and overall firm growth.
v. Technological capability: Advanced technological capabilities, through the deployment and upgrading of technological resources (Zhang et al., 2019; Khan et al., 2019)., strengthen innovation performance and growth trajectories.
vi. Innovative capabilities: As a composite construct, innovative capabilities integrate knowledge-based processes and technological resources (West & Bogers, 2014; Chesbrough, 2003), collectively driving ICT firm growth.

5. Conclusion

The role of innovative capabilities in driving ICT firm growth through the lens of the Knowledge-Based View. By integrating multidimensional innovation capabilities into a coherent framework, the study provided a theoretically grounded explanation of how knowledge-driven processes translate into sustainable organizational growth. The proposed framework and propositions offer valuable

directions for future empirical research and strategic management practice.

Implications

This study provides important implications for theory and practice regarding the role of innovative capabilities in driving ICT firm growth.

Theoretical Implications: The study extends KBV by explicitly linking knowledge processes to innovative capabilities and ICT firm growth, contributing to innovation and strategic management literature.

Managerial Implications: ICT firm managers should strategically invest in knowledge acquisition systems, digital infrastructure, and learning mechanisms to strengthen innovative capabilities and sustain competitive advantage.

Policy Implications: Policymakers should promote innovation ecosystems through R&D funding, digital infrastructure development, and university, industry collaboration

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