

# INFLUENCE OF DIGITAL ECONOMY ON BUSINESS OPERATIONS IN LAGOS STATE, NIGERIA

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## ABSTRACT:

This study investigated the influence of the digital economy on business operations in Nigeria, with a particular attention on the impact of digital infrastructure and digital financial services on operational efficiency and profitability. A survey design was employed, and data were collected through structured questionnaires administered to 100 respondents across digital business firms. Descriptive statistics, correlation, and regression analyses were used to examine the relationships among variables. The findings revealed strong and statistically significant positive relationships between digital economy dimensions and business operations. Digital infrastructure showed a strong correlation with business operations ( $r = 0.722$ ,  $p < 0.01$ ), while digital financial services also demonstrated a significant correlation ( $r = 0.648$ ,  $p < 0.01$ ). A moderate positive correlation was observed between digital infrastructure and digital financial services ( $r = 0.453$ ,  $p < 0.01$ ), suggesting a corresponding relationship. Regression results further confirmed the predictive strength of both dimensions. Digital infrastructure explained 52.1% of the variance in business operations ( $R^2 = 0.521$ ,  $F = 106.489$ ,  $p < 0.001$ ), with a beta coefficient ( $\beta = 0.663$ ), indicating a 66.3% improvement in business operations. Similarly, digital financial services accounted for 42.0% of the variance ( $R^2 = 0.420$ ,  $F = 71.450$ ,  $p < 0.01$ ), with a beta value ( $\beta = 0.578$ ), indicating a 57.8% rise in profitability. The study emphasized the importance of strengthening digital infrastructure and expanding access to financial technologies. It recommends targeted investments and digital capacity-building to enhance business performance, contributing empirical evidence to the digital transformation discourse in emerging economies

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## Introduction

The rise of the digital economy, accelerated by the global COVID-19 pandemic, has reshaped business environments worldwide. Characterized by the integration of information and communication technologies (ICT), the digital economy now serves as a key driver of economic growth, innovation, and entrepreneurship across sectors such as agriculture, health, commerce, and education (Oloyede et al., 2023). Digitalization has transformed global trade patterns, shifting the focus from physical flows to the intangible movement of data, enabling real-time decision-making and cross-border connectivity (Azubuike & Oguguo, 2024; Deng, 2024). As digital technologies such as artificial intelligence (AI), 5G, cloud computing, and e-commerce continue to evolve, they influence not only how businesses compete but also how they create value.

Hamdan (2025), citing Porter (1998) and Brynjolfsson (2014), asserts that traditional economic models rooted in classical and neoclassical theories emphasizing price mechanisms, market equilibrium, and rationality are now deficient in explaining current phenomena such as data commodification and network effects. In contrast, the modern digital economy emphasizes agility, innovation, and interdisciplinary thinking, motivating a philosophical reassessment of its foundations through ontological, epistemological, and axiological perspectives (Kuhn, 1962; Krauss, 2024; Nosova, 2021).

Globally, countries are investing in digital infrastructure and technology-led initiatives to capture a share of this booming digital economy, which is projected to reach \$16.5 trillion by 2028, accounting for 17% of global GDP (O'Grady, 2024). According to O'Grady (2024), advancing the digital economy requires not only investment in infrastructure but also in digital businesses, public services, research and development, and digital skills.

Nigeria, like many developing countries, is actively engaging in the digital transformation, leveraging platforms that enable citizen participation, feedback, and inclusion in governance processes. These digital tools are essential for addressing the needs of diverse demographic groups, including marginalized communities. One of the key pillars supporting this transformation is digital financial services (DFS), which include mobile banking, online payments, ATMs, and credit platforms. DFS enhance the speed, security, and accessibility of financial transactions and have contributed to improved financial inclusion and institutional profitability in Nigeria. However, challenges such as low digital literacy, cybersecurity risks, and poor interoperability continue to hinder widespread adoption, particularly among rural populations and small businesses

(George, 2022; Dewa et al., 2024; Aziz et al., 2024).

Although, digital infrastructure is increasingly recognized as a strategic enabler of reduced transaction costs, enhanced communication, and data-driven decision-making (Wang et al., 2025; Yao & Yan, 2025) with the country's commitment to the digital shift, significant structural and operational barriers persist which suggest a disconnect between policy and practice. Inadequate digital infrastructure especially in rural areas combined with frequent power outages, low ICT investment, and limited broadband access, hampers the full realization of digital opportunities (Ahmedov, 2020; Feng & Qi, 2024). Additionally, many Nigerian businesses struggle with poor connectivity and underdeveloped digital capabilities, which diminish their operational efficiency and competitiveness.

At the firm level, digital technologies play a vital role in enhancing operational performance and profitability through automation, real-time analytics, and improved process efficiency (Guo et al., 2024). However, the adoption of these technologies is often constrained by high implementation costs, limited technical expertise, and inadequate systems infrastructure (Okafor & Chia, 2024; Obiki-Osafiele et al., 2024). While digital tools such as e-commerce platforms and online marketing have yielded increased revenues for some firms, particularly larger ones, small and medium-sized enterprises (SMEs) continue to face difficulties in accessing funding and overcoming technological barriers (Audu & Ishola, 2021; Osazefua, 2019).

While literature often focuses on either digital infrastructure or DFS in isolation, limited attention has been given to their combined effects on firm performance, especially in developing economies like Nigeria. This gap stresses the need for more integrated analysis, which this study addresses by exploring the combined influence of digital infrastructure and digital financial services on the operational performance of Nigerian businesses and to identify and analyze the major challenges faced by SMEs in utilizing digital infrastructure and digital finance for improving business competitiveness. Such research can inform strategic decision-making, public policy, and investment priorities in Nigeria's rapidly evolving digital landscape.

## **Literature Review**

### **Digital Economy**

The digital economy encompasses economic activities that leverage digital technologies, particularly information and communication technologies (ICT), to create, market, and consume goods and services through digital platforms. Heath and Micallef (2021) define it as the sum of

economic activities involving IP-enabled communications and networks, signifying a wide change in how economic processes are designed and delivered. Chew (2013) stresses the transformative impact of digitalisation on business processes, highlighting that it facilitates efficiency, competitiveness, and sustainability. This transformation, however, introduces both opportunities and challenges that are crucial for businesses to navigate (Clerkin, 2015).

A defining distinction of the digital economy is its rearrangement of traditional economic systems. It adjusts how value is created, exchanged, and distributed by emphasizing intangibles such as data, algorithms, and digital services over physical goods. In this sense, Oloyede et al. (2023) conceptualize the digital economy as a domain where digitized knowledge and information are fundamental to productivity and economic optimization. Azubuike and Oguguo (2024) extend this view by presenting the digital economy as an ecosystem involving both core digital sector jobs and digital functions within non-digital industries, strengthening the significance of digital capabilities across all sectors.

Numerous features particularly describe the digital economy. Azubuike and Oguguo (2024) point out the intangibility of assets, that is economic value now often comes from non-physical inputs such as software and intellectual capital. Oloyede et al. (2023) stress hyper-connectivity, where global interconnectivity facilitates instant collaboration and information exchange. Ahmedov (2020) and Audu and Ishola (2021) underline network effects and rapid innovation cycles, respectively, explaining how user participation exponentially increases value on digital platforms and how quick technological evolution leads to short product life cycles. Another major attribute is “platformization,” whereby digital platforms such as Amazon, Uber, and Paystack arbitrate economic transactions and disrupt traditional business models (Azubuike & Oguguo, 2024).

Digital economy have extensive reaching effects. As noted by Oloyede et al. (2023), it enhances market access and allows firms to scale globally at low marginal cost. It also stimulates job creation in emerging digital sectors such as fintech and cybersecurity (Azubuike & Oguguo, 2024). Onwuatiegwu (2023) observes that productivity gains arise from automation and data-driven operations, while Okafor and Chia (2024) highlight the environment of continuous innovation fostered by digital technologies. Furthermore, digitalisation reduces overhead and transactional costs, streamlines operations, and enhances customer reach (Obiki-Osafiele et al., 2024). These elements collectively increase firm competitiveness and contribute to national economic growth. However, these benefits are counterbalanced by several drawbacks. One of the foremost issues is

the digital divide—unequal access to digital infrastructure widens socio-economic gaps, especially in rural and underserved areas (Idris & Maikomo, 2024). Cybersecurity risks also escalate, with data breaches and hacking presenting serious threats to consumers and firms alike (Azubuike & Oguguo, 2024). Additionally, automation and artificial intelligence pose a threat to low-skilled jobs, leading to potential unemployment and social disruption (Audu & Ishola, 2021). Taxation of digital activities is another growing challenge, as cross-border digital transactions make traditional tax frameworks less effective (Audu & Ishola, 2021). Finally, network effects can result in monopolistic dominance by a few large firms, stifling competition and innovation (Ahmedov, 2020).

The digital economy's social implications are also noteworthy. The European Commission (2019) underscores its potential to create a fairer economic environment and promote inclusivity. For instance, during the COVID-19 pandemic, digital tools facilitated remote work arrangements, showcasing the adaptability of digital structures to global crises. Kepenek et al. (1997) and other scholars note that digitalisation, intertwined with globalisation, reshapes economic structures and necessitates strategic planning by both businesses and governments to harness its benefits while mitigating its challenges.

### **Digital Infrastructure**

Digital infrastructure forms the backbone of the digital economy, enabling efficient service delivery, innovation, and global competitiveness (Yao & Yan, 2025). It comprises broadband networks, cloud computing, and data centers that facilitate digital transformation across sectors (Wang et al., 2025). Guo et al. (2024) describe it as the foundational layer of modern economic activities, supporting firms' participation in digital markets and adoption of advanced technologies. Beyond connectivity, digital infrastructure includes intelligent systems that enhance productivity through automation and data-driven tools (Yao & Yan, 2025; Li et al., 2025).

The key features of digital infrastructure reflect both technical and strategic relevance. It enables digital services like e-commerce, e-governance, and digital finance (Guo et al., 2024), and supports massive data processing, artificial intelligence, and high-speed computations (Wang et al., 2025). Interoperability allows seamless integration of platforms and stakeholders (Feng & Qi, 2024), while scalability ensures infrastructure can adapt to increasing demand (Yao et al., 2025). However, these systems require significant capital investment in fiber-optics, data centers, and telecom towers (Abdullayev, 2024).

Digital infrastructure reduces communication and transaction costs, promotes inclusion by extending services to underserved populations, and supports economic diversification, particularly in resource-dependent economies like Nigeria (Feng & Qi, 2024; Guo et al., 2024). It enhances analytics and AI adoption, enabling better decision-making and resilience through cloud-based systems (Li et al., 2025; Yao et al., 2025). Nevertheless, challenges persist. Rural areas often remain underserved due to deployment costs, deepening the digital divide (Abdullayev, 2024). Weak cybersecurity exposes systems to attacks and breaches (Guo et al., 2024). Urban-centric rollouts exacerbate inequality, while outdated infrastructure risks rapid obsolescence (Li et al., 2025; Feng & Qi, 2024). Additionally, energy consumption and e-waste from data centers raise environmental concerns (Wang et al., 2025).

**Digital Financial Services (DFS)** refer to financial services provided through digital channels such as mobile phones, the internet, and electronic payment systems. DFS improve financial access, especially for underserved populations, by offering low-cost, accessible services (George, 2022; Widjojo, 2021). They include mobile banking, e-wallets, digital lending, and remittances (Aziz et al., 2024), and are essential for SMEs through integrated financial management tools (Alamsyah et al., 2024). DFS also enhance operational efficiency for financial institutions (Sreekanth & Kiran, 2022). DFS features include 24/7 accessibility, reduced transaction costs, secure encryption, and seamless integration of services such as savings, insurance, and investment (George, 2022; Alamsyah et al., 2024). Instant payment capabilities further boost user experience (Sreekanth & Kiran, 2022).

DFS expand financial inclusion, particularly in remote areas (Aziz et al., 2024), and improve profitability for banks through broader reach and lower costs (George, 2022). DFS also provide convenient access to services and help users manage finances through tracking tools and analytics (Alamsyah et al., 2024). Transparency and reduced cash handling lower fraud risks (Aziz et al., 2024). However, the digital divide limits access for users without smartphones or internet (Widjojo, 2021). Cybersecurity threats, including hacking and data breaches, are major risks (Sreekanth & Kiran, 2022). Regulatory frameworks often lag behind technological advancements, complicating governance (Dewa et al., 2024). Service disruptions due to infrastructure failures also pose concerns, while high transaction fees from some DFS providers hinder affordability for low-income users (Alamsyah et al., 2024; Aziz et al., 2024).

**Operational efficiency** refers to an organization's ability to deliver quality products or services

using minimal resources. In Nigeria, businesses increasingly rely on digital tools to streamline operations, reduce waste, and improve productivity (Okafor & Chia, 2024). Efficiency today hinges on digitization, automation, and data-informed decisions (Azubuike & Oguguo, 2024). It involves optimizing processes, minimizing costs, and enhancing workflow management (Osazefua, 2019; Obiki-Osafiele et al., 2024).

Through process redesign, technology integration (e.g., ERP, AI), cost control, standardized procedures, and performance tracking through KPIs like turnaround time and resource utilization (George, 2022; Onwuatiegwu, 2023; Azeez, 2022). These elements reduce expenses, speed up service delivery, and improve scalability and competitiveness (Okafor & Chia, 2024; Azubuike & Oguguo, 2024). However, Initial setup costs are high, and overdependence on digital systems can disrupt operations during downtimes (Azeez, 2022). Resistance to change and over-standardization may hinder innovation, while unfiltered data can overwhelm decision-making (George, 2022; Onwuatiegwu, 2023; Azubuike & Oguguo, 2024).

**Profitability** measures how effectively a business generates income relative to its expenses. In a digital economy, it is shaped by operational efficiency, digital strategy, and market responsiveness (Obiki-Osafiele et al., 2024). Firms investing in digital infrastructure often achieve stronger profit margins despite economic volatility (Azubuike & Oguguo, 2024). Profitability reflects financial health, operational success, and competitiveness (Aziz et al., 2024). It is commonly evaluated using metrics such as Return on Assets (ROA), Return on Equity (ROE), and gross margin (Widjojo, 2021; Sreekanth & Kiran, 2022). Core traits include revenue generation, cost control, strategic reinvestment, and sound risk management (Okafor & Chia, 2024; George, 2022; Audu & Ishola, 2021).

Profitable firms enjoy sustainability, investor appeal, expansion potential, and better staff welfare, all of which drive growth and market leadership (Onwuatiegwu, 2023; Obiki-Osafiele et al., 2024). However, excessive focus on profits can lead to short-termism, risk-taking, cost-cutting that affects quality or jobs, and ethical concerns such as inequality and environmental harm (George, 2022; Azubuike & Oguguo, 2024; Onwuatiegwu, 2023).

### **Theoretical Review and the Nigerian Context**

The integration of digital technologies into business operations is best understood through two prominent theoretical frameworks: the Technology Acceptance Model (TAM) and the Resource-Based View (RBV). TAM, introduced by Davis (1986), suggests that perceived usefulness and

ease of use drive technology adoption. This is particularly relevant in Nigeria, where infrastructural limitations and digital literacy gaps influence business decisions (Venkatesh & Davis, 2000; Obiki-Osafiele et al., 2024). Nigerian MSMEs, for example, often adopt digital platforms gradually, based on the perceived benefits and accessibility.

In contrast, the RBV theory (Barney, 1991; Wernerfelt, 1984) posits that competitive advantage stems from unique, valuable, and inimitable internal resources. For Nigerian firms, the possession of digital competencies such as ERP systems or fintech capabilities can significantly enhance operational efficiency and profitability, especially in a volatile macroeconomic environment (Azubuike & Oguguo, 2024).

### **Digital Infrastructure and Operational Efficiency**

Several empirical studies underline the impact of digital infrastructure on operational efficiency. Wang et al. (2025), analyzing China's Broadband policy using a DID approach, found that enhanced digital infrastructure reduced both over- and under-investment by improving managerial efficiency. Similarly, Yao et al. (2025) demonstrated that connectivity and digital integration significantly improved intelligent manufacturing and decision-making processes. Abdullayev (2024) highlighted that digital infrastructure contributes to macroeconomic stability and operational risk reduction in emerging economies.

Feng and Qi (2024), using panel regression across Asian countries, established a positive correlation between broadband expansion and GDP growth, emphasizing the need to bridge the urban-rural digital divide. Li et al. (2025) focused on Tibet's cultural industry, showing that digital infrastructure enhanced productivity by decentralizing logistics and reducing consumption inequality.

### **Digital Financial Services and Profitability**

Empirical evidence also supports a strong link between digital financial services (DFS) and profitability. Aziz et al. (2024), using GMM estimators on panel data from 111 banks in nine developing countries, found that digital financial inclusion significantly enhances bank profitability. Similarly, Alamsyah et al. (2024) revealed that SMEs leveraging digital financial strategies benefited from reduced transaction costs and improved financial performance. In the Indian context, Sreekanth and Kiran (2022) showed that DFS adoption led to higher ROA and ROE in banks. Agur et al. (2020) added that during the COVID-19 pandemic, DFS enabled financial continuity and inclusion, although challenges such as cybersecurity risks and digital

inequality remain. Based on the theoretical and empirical evidence, the following hypothesis are proposed:

H1: The digital economy has a significant positive effect on business operations.

H1a: Digital infrastructure has a significant positive effect on business operational efficiency and profitability.

H1b: Digital financial services have a significant positive effect on business operational efficiency and profitability.

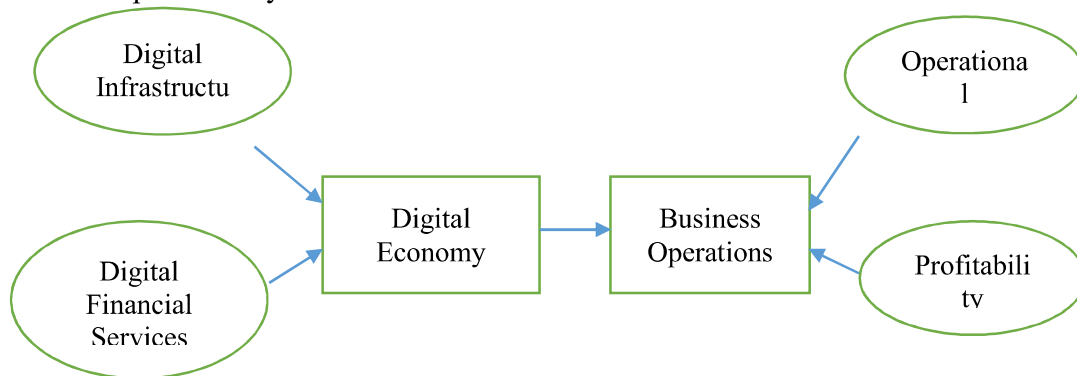


Figure 1: Conceptual Framework

## Methodology

This study adopts a survey design, suitable for assessing the influence of the digital economy on business operations through quantitative data from a cross-section of businesses. The target population is the 228 employees of Ecozar Solar Energy Ltd., Lekki Phase 1, Lagos, purposively selected for its engagement with digital business practices. A systematic sampling technique was used to select 100 employees, giving each staff member an equal chance of selection.

The questionnaire instrument used for the study was grouped into section A (demographics) and section B (research-related items) using a four-point Likert scale: SA – Strongly Agree, A – Agree, D – Disagree, SD – Strongly Disagree. To measure the independent and dependent variables, questionnaire was adapted from previous studies. Reliability test of the questionnaire adapted was led through a pilot study involving 25 employees of a similar firm. Cronbach's Alpha results assessing the internal consistency of the variables are shown on table 1. The data from the retrieved questionnaire was analyzed using descriptive and inferential statistics from the Statistical Package for Social Sciences (SPSS) 22.

Table 1: Reliability Test

S/N	Variables	No. of Items	Cronbach Alpha
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1	Digital Infrastructure	5	0.81
2	Digital Financial services	5	0.82
3	Operational Efficiency	5	0.73
4	Profitability	5	0.79

## Results and Discussion of Findings

Table 2: Correlation Analysis between variables Digital economy and Business operations

No	Variables	Mean	Standard Deviation	1	2	3
1	Business Operations	3.74	0.79	1		
2	Digital Infrastructure	3.42	0.89	0.722	1	
3	Digital Financial Services	3.51	0.82	0.648	0.453	1

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 2 reports the descriptive statistics of variables such as the means, the standard deviations, and Pearson correlation coefficients. The correlation analysis reveals strong and statistically significant relationships between digital economy components: digital infrastructure and digital financial services, and business operations. Digital infrastructure shows a strong positive correlation with business operations ( $r = 0.722$ ,  $p < 0.01$ ), indicating that businesses with better access to reliable internet, ICT systems, and digital tools tend to perform more efficiently and profitably. Similarly, digital financial services also have a positive and significant correlation with business operations ( $r = 0.648$ ,  $p < 0.01$ ), suggesting that access to digital payment systems, online banking, and mobile finance contributes meaningfully to business efficiency and growth. Thus, the results give support to the hypothesis H1a and H1b.

Additionally, there is a moderate positive correlation between digital infrastructure and digital financial services ( $r = 0.453$ ,  $p < 0.01$ ), implying that firms with robust digital infrastructure are more likely to adopt and benefit from digital financial tools.

Table 3: Coefficient of Regression

Variables	<i>R</i>	<i>R</i> <sup>2</sup>	<i>F</i>	<i>B</i>	<i>T</i>	<i>P(sig)</i>
Constant				1.120	4.502	.000

Digital Infrastructure	0.722	0.521	106.489	0.663	10.320	.000
Digital Financial Services	0.648	0.420	71.450	0.578	8.448	0.000

**Dependent variable: Business operations**

**Predictor variables: Digital Infrastructure and Digital Financial Services.**

The regression analysis in Table 3 indicates a significant positive relationship between digital infrastructure and business operations ( $R^2 = 0.521$ ,  $F = 106.489$ ,  $p < 0.001$ ). The beta coefficient ( $\beta = 0.663$ ) suggests that a unit increase in digital infrastructure is associated with a 66.3% increase in business operations. The high t-value further confirms the significance of this relationship. As the p-value is less than 0.05, it confirms that digital infrastructure is a strong predictor of business operations in Nigeria. This supports the need for policies and investments that prioritize digital infrastructure as a driver of productivity and innovation.

These findings align with prior studies. Wang et al. (2025) found that digital infrastructure policies, such as China's Broadband initiative, significantly improved firm-level investment efficiency and management practices. Yao et al. (2025) also reported that digital infrastructure supports intelligent manufacturing and productivity growth. Similarly, Abdullayev (2024) emphasized its role in economic stability and operational risk reduction. Feng and Qi (2024) further confirmed its positive effect on economic output and cross-sectoral efficiency, all reinforcing the present study's conclusion.

Likewise, the table shows a strong positive relationship between digital financial services and business operations ( $R = 0.648$ ,  $R^2 = 0.420$ ,  $F = 71.450$ ,  $p < 0.01$ ). The beta value ( $\beta = 0.578$ ) indicates that a unit increase in the use of digital financial services leads to a 57.8% increase in profitability. Given the significance level ( $p = 0.000$ ), it is confirmed that digital financial services significantly enhance business profitability in Nigeria.

This result is consistent with existing literature. Aziz et al. (2024) reported a strong link between digital financial inclusion and increased bank profitability in developing economies. Alamsyah et al. (2024) showed that SMEs using digital financial tools enjoy better financial management and profit outcomes. Sreekanth and Kiran (2022) also observed improvements in ROA and ROE due to digital financial service adoption. Agur et al. (2020) highlighted the critical role these services played in sustaining business operations and financial inclusion during the COVID-19 pandemic. These studies collectively support the conclusion that digital finance positively influences profitability in the Nigerian business context.

## Conclusion

This study examined the influence of the digital economy on business operations in Nigeria, focusing on elements such as digital infrastructure and digital financial services. Findings indicate that while businesses are increasingly adopting digital tools, challenges like poor infrastructure, regulatory gaps, low digital literacy, and limited rural access remain. Nonetheless, organizations integrating digital technologies report improved productivity, wider customer reach, faster transactions, and enhanced competitiveness. The digital economy thus presents strong potential for innovation, improved service delivery, and economic growth.

Based on the findings, the study recommends increased investment in digital infrastructure nationwide and the formulation of supportive policies on digital entrepreneurship, data privacy, and cybersecurity. It also urges collaboration between government and businesses to provide digital training, particularly for SMEs. Further, incentives such as grants and tax relief should support innovation and tech startups. Public-private partnerships should be strengthened to drive technological advancement, and continuous research is needed to guide digital policy and strategy in Nigeria.

## REFERENCE.

- AbdulKareem, I. A., Elaigwu, M., & Shola, A. T. I. (2021). The role of risk management, sustainability disclosure practices, and Islamic finance in Nigeria business environment. *The Journal of Management Theory and Practice (JMTP)*, 89-96. <https://doi.org/10.37231/jmtp.2021.2.4.160>
- Abdullayev, A. F. U. (2024). Digital Infrastructure Development And Its Impact On Economic Stability. *Oriental renaissance: Innovative, educational, natural and social sciences*, 4(11), 312-319. [http://tepen.ru/files/arxiv/2022/meta\\_dat\\_06\\_22\\_eng.pdf](http://tepen.ru/files/arxiv/2022/meta_dat_06_22_eng.pdf)
- Acho, Y., Ifeoma Jeraldine, E., & Samson Joel, A. . (2021). COVID -19 Pandemic and the Nigerian

- Business Environment . *International Journal of Accounting and Public Sector Management*, 1(1), 23-36. <https://journals.rcmss.com/index.php/ijapsm/article/view/71>
- Agur, I., Peria, S. M., & Rochon, C. (2020). Digital financial services and the pandemic: Opportunities and risks for emerging and developing economies. *International Monetary Fund Special Series on COVID-19, Transactions*, 1, 2-1.  
file:///C:/Users/hp/Downloads/en-special-series-on-covid-19-digital-financial-services-and-the-pandemic.pdf
- Ahmedov, I. (2020). The impact of digital economy on international trade. *European Journal of Business and Management Research*, 5(4). <https://doi.org/10.24018/ejbmr.2020.5.4.389>
- Alamsyah, W., Yulianti, R., Khairuna, K., Nurhayati, R., & Masyitah, M. (2024). Digital Financial Strategies in Managing SMEs to Maximize Profitability. *IC-ITECHS*, 5(1), 1061-1067. <https://doi.org/10.32664/ic-itech.v5i1.1607>
- Audu, S. I., & Ishola, K. (2021). Digital economy and tax administration in Nigeria. *GSSJ*, 9(9), 1251-1262. [https://www.researchgate.net/profile/Solomon-Audu/publication/354717426\\_Digital\\_economy\\_and\\_tax\\_administration\\_in\\_Nigeria/links/61497f66a3df59440b9d5d36/Digital-economy-and-tax-administration-in-Nigeria.pdf](https://www.researchgate.net/profile/Solomon-Audu/publication/354717426_Digital_economy_and_tax_administration_in_Nigeria/links/61497f66a3df59440b9d5d36/Digital-economy-and-tax-administration-in-Nigeria.pdf)
- Azeez, A. (2022). Security and Business Operations in Nigeria:: The Moderating Role of Politics. *ABUAD Journal of Social and Management Sciences*, 3(1), 109-113. <https://doi.org/10.53982/ajsms.2022.0301.07-j>.
- Aziz, S. A., Razak, L. A., Slesman, L. Y., & Abduh, M. (2024). The Impact of Digital Financial Inclusion on Bank Profitability: Evidence from Developing Countries. *Jurnal Manajemen Teori dan Terapan*, 17(2). <https://doi.org/10.20473/jmtt.v17i2.57508>
- Azubuikwe, R. N., & Oguguo, E. C. (2024). Integrating Emerging Employability Skills into University Business Education Programme in Nigeria for Unemployment Reduction in Digital Economy. *International Journal of Studies in Education*, 20(1), 408-420. <https://ijose.unn.edu.ng/wp-content/uploads/sites/224/2024/07/Paper-20.33-1.pdf>
- Bagozzi, R. P. (2007). The legacy of the technology acceptance model and a proposal for a paradigm shift. *Journal of the Association for Information Systems*, 8(4), 244–254. <https://doi.org/10.17705/1jais.00122>
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Benbasat, I., & Barki, H. (2007). Quo vadis TAM? *Journal of the Association for Information*

- Systems*, 8(4), 211–218. <https://doi.org/10.17705/1jais.00126>
- Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems: Theory and results (Doctoral dissertation, Massachusetts Institute of Technology). <https://dspace.mit.edu/handle/1721.1/15192>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Dewa, D. M. R. T., Pramono, S. A., Suwondo, J. P. R., & Nurdiani, T. W. (2024). Analysis of The Influence of Digital Financial Literacy Understanding on The Profitability of Small and Medium Micro Enterprises. *Jurnal Sistim Informasi dan Teknologi*, 19-23 <https://doi.org/10.60083/jsisfotek.v6i1.341>
- Eletu, I. T., Nwuche, C. A., & Akhigbe, O. J. (2021). Learning capability and operational efficiency of manufacturing firms in Nigeria. *Journal of Emerging Trends in Economics and Management Sciences*, 12(4), 150-161. <https://www.scholarlinkinstitute.org/jetems/articles/Learning%20Capability%20and%20Operational%20NEW.pdf>
- Feng, J., & Qi, S. (2024). Digital infrastructure expansion and economic growth in Asian countries. *Journal of Business and Economic Options*, 7(2), 27-32. <https://resdojournals.com/index.php/jbeo/article/view/356>
- Foss, N. J., & Knudsen, T. (2003). The resource-based tangle: Towards a sustainable explanation of competitive advantage. *Managerial and Decision Economics*, 24(4), 291–307. <https://doi.org/10.1002/mde.1120>
- George, K. S. (2022). *Effect Of Digital Financial Services On Profitability Of Commercial Banks In Kenya: A Case Of Kenya Commercial Bank* (Doctoral Dissertation). <http://hdl.handle.net/123456789/13577>
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17(S2), 109–122. <https://doi.org/10.1002/smj.4250171110>
- Guo, Q., Geng, C., Yao, N., & Zhao, L. (2024). Can digital infrastructure enhance economic efficiency? Evidence from China. *Quality & Quantity*, 58(2), 1729-1752. <https://doi.org/10.1007/s11135-023-01710-y>
- Idris, M., & Maikomo, J. M. (2024) Impact Of Digital Economy On Youth Unemployment In Nigeria. *KASU Journal of Economics and Development Studies*, Vol 10 (2),

- [https://www.researchgate.net/profile/Miftahu-2/publication/382762054\\_IMPACT\\_OF\\_DIGITAL\\_ECONOMY\\_ON\\_YOUTH\\_UNEMPLOYMENT\\_IN\\_NIGERIA/links/66abac0f8f7e1236bc2e7fec/IMPACT-OF-DIGITAL-ECONOMY-ON-YOUTH-UNEMPLOYMENT-IN-NIGERIA.pdf](https://www.researchgate.net/profile/Miftahu-2/publication/382762054_IMPACT_OF_DIGITAL_ECONOMY_ON_YOUTH_UNEMPLOYMENT_IN_NIGERIA/links/66abac0f8f7e1236bc2e7fec/IMPACT-OF-DIGITAL-ECONOMY-ON-YOUTH-UNEMPLOYMENT-IN-NIGERIA.pdf)
- Lado, A. A., Boyd, N. G., & Wright, P. (1992). A competency-based model of sustainable competitive advantage: Toward a conceptual integration. *Journal of Management*, 18(1), 77–91. <https://doi.org/10.1177/014920639201800106>
- Legris, P., Ingham, J., & Colletette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model. *Information & Management*, 40(3), 191–204. [https://doi.org/10.1016/S0378-7206\(01\)00143-4](https://doi.org/10.1016/S0378-7206(01)00143-4)
- Li, Y., Du, Q., Ma, G., & Gazang, C. (2025). Can strengthening digital infrastructure enhance productivity in the cultural industry? evidence from Tibet. *PloS one*, 20(1), e0317366. <https://doi.org/10.1371/journal.pone.0317366>
- Mathieson, K. (1991). Predicting user intentions: Comparing the technology acceptance model with the theory of planned behavior. *Information Systems Research*, 2(3), 173–191. <https://doi.org/10.1287/isre.2.3.173>
- Miller, D. (2003). An asymmetry-based view of advantage: Towards an attainable sustainability. *Strategic Management Journal*, 24(10), 961–976. <https://doi.org/10.1002/smj.316>
- Newbert, S. L. (2007). Empirical research on the resource-based view of the firm: An assessment and suggestions for future research. *Strategic Management Journal*, 28(2), 121–146. <https://doi.org/10.1002/smj.573>
- Obiki-Osafiafele, A. N., Efunniyi, C. P., Abhulimen, A. O., Osundare, O. S., Agu, E. E., Adeniran, I. A., & OneAdvanced, U. K. (2024). Theoretical models for enhancing operational efficiency through technology in Nigerian businesses. *International Journal of Applied Research in Social Sciences*, 6(8), 1969–1989. [https://www.researchgate.net/profile/Angela-Abhulimen/publication/383860270\\_4\\_Nigeria\\_Inter-bank\\_Settlement\\_System\\_Plc\\_NIBSS\\_5\\_Zenith\\_General\\_Insurance\\_Company\\_Limited\\_Nigeria\\_6\\_International\\_Association\\_of\\_Computer\\_Analysts\\_and\\_Researchers/links/66db30bfa5e11512ca8ed46/4-Nigeria-Inter-bank-Settlement-System-Plc-NIBSS-5-Zenith-General-Insurance-Company-Limited-Nigeria-6-International-Association-of-Computer-](https://www.researchgate.net/profile/Angela-Abhulimen/publication/383860270_4_Nigeria_Inter-bank_Settlement_System_Plc_NIBSS_5_Zenith_General_Insurance_Company_Limited_Nigeria_6_International_Association_of_Computer_Analysts_and_Researchers/links/66db30bfa5e11512ca8ed46/4-Nigeria-Inter-bank-Settlement-System-Plc-NIBSS-5-Zenith-General-Insurance-Company-Limited-Nigeria-6-International-Association-of-Computer-)

- O'Grady, M. (2024, July 23). *The global digital economy will reach \$16.5 trillion and capture 17% of global GDP by 2028*. Forrester. <https://www.forrester.com/blogs/the-global-digital-economy-will-reach-16-5-trillion-and-capture-17-of-global-gdp-by-2028/>
- Okafor, C. A., & Chia, I. I. (2024). Digital Strategies And Operational Efficiency Of Small Businesses In North Central Nigeria. *International Journal Of Capacity Building In Education And Management*, 6(3), 17-34. <https://journals.rcmss.com/index.php/ijcbem/article/view/982>
- Oloyede, A. A., Faruk, N., Noma, N., Tebepah, E., & Nwaulune, A. K. (2023). Measuring the impact of the digital economy in developing countries: A systematic review and meta-analysis. *Heliyon*, 9(7).<https://doi.org/10.1016/j.heliyon.2023.e17654>
- Onwuatuegwu, C. (2023). Digital Economy Agreements (DEA): A Breakthrough for SMEs in Nigeria?. *Journal of Commercial and Property Law*, 10(1), 11-15.
- Osazefua, I. J. (2019). Operational efficiency and financial sustainability of listed manufacturing companies in Nigeria. *Journal of Accounting and Taxation*, 11(1), 17-31. <https://doi.org/10.5897/JAT2018.0329>
- Park, S. Y. (2009). An analysis of the technology acceptance model in understanding university students' behavioral intention to use e-learning. *Educational Technology & Society*, 12(3), 150–162. <https://www.jstor.org/stable/jeductechsoci.12.3.150>
- Priem, R. L., & Butler, J. E. (2001). Is the resource-based "view" a useful perspective for strategic management research? *Academy of Management Review*, 26(1), 22–40. <https://doi.org/10.5465/amr.2001.4011928>
- Ravichandran, T., & Lertwongsatien, C. (2005). Effect of information systems resources and capabilities on firm performance: A resource-based perspective. *Journal of Management Information Systems*, 21(4), 237–276. <https://doi.org/10.1080/07421222.2005.11045820>
- Sreekanth, P. V., & Kiran, K. B. (2022, February). Impact of Digital Financial Services on the Profitability Performance of Banks in India. In *2022 Interdisciplinary Research in Technology and Management (IRTM)* (pp. 1-5). IEEE.<https://doi.org/10.1109/IRTM54583.2022.9791796>
- Straub, D., & Burton-Jones, A. (2007). Veni, vidi, vici: Breaking the TAM logjam. *Journal of the Association for Information Systems*, 8(4), 223–229. <https://doi.org/10.17705/1jais.00127>

- Uzoamaka, N. O. P., Eneh, O. M., & Anyahara, I. O. (2025). The Impact Of Artificial Intelligence On Sustainability And Operational Efficiency Of Small And Medium Scale Businesses In South-East, Nigeria. *European Journal of Research and Reflection in Management Sciences*, 13(1). <https://www.idpublications.org/wp-content/uploads/2025/01/Full-Paper-THE-IMPACT-OF-ARTIFICIAL-INTELLIGENCE-ON-SUSTAINABILITY-AND-OPERATIONAL-EFFICIENCY-OF-SMALL.pdf>
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186–204. <https://doi.org/10.1287/mnsc.46.2.186.11926>
- Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157–178. <https://doi.org/10.2307/41410412>
- Wade, M., & Hulland, J. (2004). Review: The resource-based view and information systems research: Review, extension, and suggestions for future research. *MIS Quarterly*, 28(1), 107–142. <https://doi.org/10.2307/25148626>
- Wang, Z., Peng, D., Kong, Q., & Tan, F. (2025). Digital infrastructure and economic growth: Evidence from corporate investment efficiency. *International Review of Economics & Finance*, 98, 103854. <https://doi.org/10.1016/j.iref.2025.103854>
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180. <https://doi.org/10.1002/smj.4250050207>
- Widjojo, R. (2021). *The Impact of Digital Financial Services on the Profitability of Agriculture Enterprises: A Comparative Study in Indonesia and Hungary* (Doctoral dissertation, soe). <http://doktori.uni-sopron.hu/id/eprint/782>
- Yao, L., Li, A., & Yan, E. (2025). Research on digital infrastructure construction empowering new quality productivity. *Scientific Reports*, 15(1), 6645. <https://doi.org/10.1038/s41598-025-90811-9>