Socialscientia Journal of the Social Sciences and Humanities
Email: socialscientiajournal@gmail.com
Online access: https://journals.aphriapub.com/index. php/SS/

Effect of Digital Transformation on the Profitability of Selected Organization in Enugu State.

Uchenna Peter OKPALA[1] and Nicholas ONYIA[2]
[1]Department of Business Administration, Enugu State University of Science and Technology, Enugu State, NIGERIA
[2]Department of Management, Marketing, Entrepreneurship, and Human Resources at Institute of Ecumenical Education, Thinkers' Corner, Enugu, NIGERIA.

[0228] Abstract
This study examined the effect of digital transformation on the profitability of selected organizations in Enugu State. The study specifically investigated the effects of e-commerce adoption, automation, digital payment systems, and ERP/data-driven decision-making on organizational profitability, while examining adoption barriers as a moderating factor. The study was anchored on Dynamic Capabilities Theory, supported by the Technology–Organization–Environment framework and Resource-Based View. A survey research design was adopted, and data were collected from respondents using a structured questionnaire. Descriptive statistics, correlation and regression analyses were employed to analyze the data and test the hypotheses at a 5% level of significance. The findings revealed that e-commerce adoption, automation, digital payment systems, and ERP/data-driven decision-making each had a significant positive effect on organizational profitability. Digital payment systems recorded the strongest perceived contribution among the dimensions examined. The study also established that adoption barriers significantly moderated the relationship between digital transformation and profitability, indicating that factors such as high implementation costs, inadequate infrastructure, limited digital skills and resistance to technological change can constrain the benefits of digital technologies. The study concluded that digital transformation is an important driver of organizational profitability when supported by adequate infrastructure, financial resources, skilled personnel and organizational readiness. It recommended increased investment in digital technologies, employee capacity development, reliable infrastructure and strategies for overcoming barriers to effective digital transformation.

Keywords: **Adoption, Enugu State, Digital Transformation, Organizational Profitability, Selected Organization.**

1. Introduction

Background to the study

Digital transformation has become one of the most decisive forces shaping business performance in the twenty-first century. Across industries and economies, organizations are re-engineering their operations, business models, and customer engagement strategies around digital technologies such as artificial intelligence (AI), e-commerce platforms, financial technology (fintech), enterprise resource planning (ERP) systems, cloud computing, and automation. These technologies are no longer peripheral tools for efficiency; they have become central to how firms create, deliver, and capture value. Globally, empirical evidence continues to affirm that digital transformation is closely linked to improved firm performance. Zhao et al. (2023) found a significant correlation between digital investments and firm profitability, especially among technology-intensive sectors, while Savvakis et al. (2024) demonstrated that digital maturity positively influenced organizational resilience and revenue recovery in the aftermath of the COVID-19 pandemic. Similarly, Saeedikiya et al. (2025) observed that enterprises engaged in Industry 4.0 initiatives recorded positive improvements in their profitability ratios, reinforcing the view that digital capability is increasingly a determinant of competitive and financial advantage.

The rationale behind this shift is straightforward: digital technologies allow organizations to automate routine processes, reduce operational costs, improve decision-making through data analytics,

expand market reach beyond geographical constraints, and respond more quickly to changing customer expectations. AI-driven tools enable predictive analytics and personalized customer experiences; e-commerce platforms extend market access beyond physical storefronts; fintech solutions streamline payments, credit, and financial management; and ERP systems integrate previously siloed business functions into unified, data-driven operations. Collectively, these innovations reshape not just how organizations function internally, but how they compete and generate profit in an increasingly digitized global marketplace. However, scholars also caution that the benefits of digital transformation are not automatic. Evidence from other contexts shows that digital transformation can drive efficiency, innovation, and cost reduction, but such benefits are often contingent on factors such as hybrid IT architectures, skilled personnel, and robust change management practices. This suggests that the relationship between digital adoption and profitability is neither uniform nor guaranteed, but shaped by organizational readiness, resource capacity, and the broader institutional environment in which a firm operates. Narrowing this global discourse to the Nigerian context reveals a business environment undergoing its own digital reawakening, albeit shaped by distinct structural realities. Nigerian organizations, across banking, manufacturing, retail, and small and medium-sized enterprises (SMEs), are increasingly adopting digital tools to remain competitive both locally and internationally. Digital transformation, understood as the process by which a company fundamentally overhauls its operations and the way it delivers value to customers through digital technology, has become a growing focus of Nigerian corporate strategy, with firms leveraging cloud computing, the Internet of Things, and AI-driven tools to automate operations, cut costs, and enhance the customer experience.

National policy has also moved to support this shift; for instance, the Nigerian Communications Commission has prioritized expanding the country's digital capabilities, setting a target of 70% broadband penetration to underpin wider digital adoption across sectors. Despite this momentum, the translation of digital adoption into measurable profitability among Nigerian organizations remains uneven and, in several respects, empirically unresolved. Studies focused on the banking sector have found encouraging links between digital transformation and financial performance, while research in manufacturing presents a more cautious picture. Findings from Nigeria's manufacturing sector reveal that operational efficiency enabled by digital tools significantly enhances firm performance, yet empirical evidence also suggests that achieving such outcomes in Nigeria requires overcoming significant barriers, including inadequate digital infrastructure, high costs of technology adoption, and shortages of skilled talent. Within the SME space specifically, digital transformation has been associated with growth, customer satisfaction, market expansion, and profitability, but adoption levels vary considerably depending on firm size, sector, and access to resources. Some studies even report an absence of significant performance impact in certain Nigerian sub-regions due to low adoption rates, underscoring that geography and sectoral context matter considerably in shaping outcomes. Enugu State, as a commercial and industrial hub in South-East Nigeria, presents a particularly relevant setting for this inquiry. Organizations operating within the state span banking, manufacturing, trade, and service sectors, many of which are at varying stages of digital adoption. While national-level and cross-regional studies have examined the digital transformation–profitability relationship in Nigeria, studies linking digital adoption to financial performance in Nigeria have largely relied on cross-sectional surveys or aggregate data, with limited firm-level, longitudinal evidence specific to sub-regional contexts such as Enugu State.

This gap creates uncertainty as to whether the profitability gains associated with digital transformation elsewhere in Nigeria and globally are similarly realized by organizations operating within Enugu State's distinct economic and infrastructural conditions. It is against this backdrop that this study investigates the effect of digital transformation on the profitability of selected organizations in Enugu State. This chapter lays the foundation for the study. It presents the background of the study, situating the research within existing global and Nigerian literature; the statement of the problem, which identifies the specific gap the study addresses; the purpose of the study and its accompanying objectives; the research questions and hypotheses guiding the investigation; the significance of the study to relevant stakeholders; and the scope of the study, which delineates the boundaries within

which the research is conducted. The study also extends to examine the literature review, discussing theoretical and empirical studies of the past, ascertaining the method through which the study data will be analyzed and presented and finally, summarizing the results, findings and the study.

Statement of the Problem

Digital transformation has become one of the defining imperatives of modern organizational strategy, promising firms that adopt it enhanced efficiency, expanded markets, and stronger financial performance. Given the scale of investment organizations across Nigeria, and Enugu State in particular, are directing toward digital tools, it has become necessary to interrogate whether this investment is genuinely yielding the profitability outcomes it is designed to produce, or whether it is merely being adopted as a matter of trend without corresponding financial benefit. It is this uncertainty that necessitates the present study. The researcher's interest in this topic stems from the observable gap between the enthusiasm with which digital transformation is being promoted, both globally and within Nigeria's corporate and policy discourse, and the comparatively limited empirical attention paid to whether this transformation is actually improving the bottom line of organizations at the sub-national level. Nigeria's ICT sector contributed approximately 19.78% to the nation's real GDP in the second quarter of 2024, a figure often cited as evidence of digital transformation's economic value. Yet national-level statistics of this kind say little about what is happening inside individual organizations in a specific state such as Enugu, and it is this disconnect between macro-level enthusiasm and micro-level uncertainty that motivated the choice of this topic.

Ideally, organizations that invest in digital transformation, whether through e-commerce platforms, automation, digital payment systems, or integrated data management tools, should experience a corresponding improvement in profitability. This is the outcome that theory predicts and that international evidence largely supports: digital adoption reduces operational costs, expands market reach, improves efficiency, and ultimately strengthens financial performance. Under ideal conditions, an organization in Enugu State that adopts digital tools should see measurable gains in revenue, reduced overheads, and improved competitive standing, benefits that would, in principle, justify the cost and disruption of digital adoption in the first place. The real situation, however, tells a more complicated story. Despite visible efforts at digital adoption, among banks, manufacturing firms, retail outlets, and SMEs, across the state, a persistent and troubling pattern emerges: digital transformation in Enugu State has not consistently translated into the profitability gains that theory would predict. While some firms in Nigeria have made notable strides in embracing digital tools, the extent to which these technologies influence key performance outcomes such as operational efficiency, cost reduction, and profitability remains largely undocumented, and there is a lack of comprehensive empirical evidence to guide stakeholders in formulating supportive interventions.

This gap is particularly acute at the sub-national level, where national statistics obscure the specific, localized realities facing organizations within states like Enugu. Why does this disconnect persist? The available evidence points to several structural and organizational barriers. First is cost: digital transformation is capital-intensive, and Nigerian firms often encounter high implementation costs, inadequate infrastructure, limited technical expertise, and organizational resistance that collectively hinder both adoption and impact. Second is infrastructure: many Enugu State organizations face inconsistent electricity supply, unreliable internet connectivity, and insufficient technical support, conditions that convert digital systems intended to reduce costs into sources of new inefficiency. Third is the skills gap: many employees lack the competencies needed to effectively utilize new digital technologies, limiting the productivity gains such tools are meant to deliver. Fourth is resistance to change, rooted in fears of job displacement and an entrenched preference for traditional methods, which prevents organizations from realizing the full operational and financial benefits of the systems they have paid for. Taken together, these barriers suggest that the relationship between digital transformation and profitability in Enugu State is far more complicated than a simple assumption that greater digitization automatically produces greater profit. Yet this complexity has not been adequately investigated at the empirical level specific to Enugu State, as existing Nigerian literature has

concentrated largely on Lagos, Abuja, and Port Harcourt, or on national analyses that overlook sub-regional realities. It is against this backdrop that the central problem of this study is posed: despite ongoing digital transformation efforts, do organizations in Enugu State actually experience improved profitability, and if not, why does this gap between digital effort and financial outcome persist?

Objectives of the Study

The broad objective of this study was to examine the effect of digital transformation on the profitability of selected organizations in Enugu State. Specifically, the objectives of the study were to: (a) Examine the effect of e-commerce adoption on the profitability of selected organizations in Enugu State. (b) Determine the effect of automation on the profitability of selected organizations in Enugu State. (c) Assess the effect of digital payment systems on the profitability of selected organizations in Enugu State. (d) Evaluate the effect of enterprise resource planning and data-driven decision-making tools on the profitability of selected organizations in Enugu State. (e) Investigate the extent to which adoption barriers moderate the relationship between digital transformation and profitability among selected organizations in Enugu State.

Research Questions

The following research questions guided the study; (a) What is the extent of effect of e-commerce adoption on the profitability of selected organizations in Enugu State? (b) What is the extent of effect of automation on the profitability of selected organizations in Enugu State? (c) What is the extent of effect of digital payment systems on the profitability of selected organizations in Enugu State? (d) What is the extent of effect of enterprise resource planning and data-driven decision-making tools on the profitability of selected organizations in Enugu State? (e) To what extent do adoption barriers (cost of adoption, poor infrastructure, digital skills gap, and resistance to change) moderate the relationship between digital transformation and profitability among selected organizations in Enugu State?

Limitations of the Study

The study has some limitations that should be considered when interpreting its findings. First, the study was restricted to selected organizations in Enugu State, which may limit the generalization of the findings to organizations operating in other states or regions of Nigeria. Secondly, the study relied substantially on questionnaire responses, making the findings potentially subject to respondents' personal opinions, perceptions and accuracy in providing information. Thirdly, the study focused on selected dimensions of digital transformation, namely e-commerce, automation, digital payment systems, and ERP/data-driven decision-making; other emerging technologies such as blockchain, Internet of Things and advanced artificial intelligence were not extensively examined. Fourthly, differences in the size, structure, resources and technological capabilities of the selected organizations may influence the extent to which digital transformation affects

This study contributes to existing knowledge by providing empirical evidence on the effect of digital transformation on organizational profitability in selected organizations in Enugu State. It extends existing literature by examining different dimensions of digital transformation, including e-commerce adoption, automation, digital payment systems, and ERP/data-driven decision-making, rather than focusing on a single digital technology. The study also contributes by establishing that adoption barriers influence the effectiveness of digital transformation. Factors such as high implementation costs, inadequate infrastructure, limited digital skills and resistance to change can reduce the benefits organizations derive from digital technologies. This provides a broader understanding of the conditions required for digital transformation to translate into improved profitability.

Furthermore, the study adds context-specific evidence from Enugu State to the growing Nigerian literature on digital transformation and organizational performance. The findings provide useful information for managers, policymakers and researchers seeking to understand how organizations can strategically employ digital technologies to strengthen profitability and competitiveness. Finally, limitations relating to access to organizational records and financial information may have restricted

the availability of detailed objective profitability data. Despite these limitations, the study provides useful evidence on digital transformation and organizational profitability in Enugu State.

Hypotheses (Null)

$H_0$1: E-commerce adoption has no significant effect on the profitability of selected organizations in Enugu State.

$H_0$2: Automation has no significant effect on the profitability of selected organizations in Enugu State.

$H_0$3: Digital payment systems have no significant effect on the profitability of selected organizations in Enugu State.

$H_0$4: Enterprise resource planning and data-driven decision-making tools have no significant effect on the profitability of selected organizations in Enugu State.

$H_0$5: Adoption barriers (cost of adoption, poor infrastructure, digital skills gap, and resistance to change) do not significantly moderate the relationship between digital transformation and profitability among selected organizations in Enugu State.

Significance of the Study

This study is significant both practically and theoretically, offering value to a range of beneficiaries who stand to gain from its findings. The key beneficiaries of this research include management and business owners of organizations in Enugu State, policymakers and regulatory bodies concerned with digital and economic development, academia and future researchers interested in digital transformation and firm performance, and the broader economy of Enugu State. Each of these groups stands to benefit from the study in distinct but interconnected ways, as discussed below.

Management and Business Owners: Managers and business owners across Enugu State will benefit directly from the empirical clarity this study provides regarding which specific dimensions of digital transformation, e-commerce, automation, digital payment systems, or ERP integration, actually translate into improved profitability. Rather than adopting digital tools reactively or based on general industry trends, business leaders can use the findings to make more informed, evidence-based investment decisions, prioritizing initiatives most likely to strengthen their financial performance while proactively planning for the cost, infrastructural, skills, and change-resistance barriers that commonly erode expected returns.

Policymakers: Government agencies and regulatory bodies responsible for shaping digital and economic policy in Enugu State and Nigeria more broadly will find in this study a localized, sector-specific evidence base to guide intervention design. Findings on the barriers constraining digital transformation's profitability impact can inform more targeted policy responses, such as infrastructure investment, SME digital literacy programs, or accessible financing schemes, that address organizations' actual obstacles rather than relying on generalized national assumptions that may not reflect Enugu State's specific realities.

Academia and Future Researchers: This study contributes to the growing body of literature on digital transformation and firm performance within developing economies by addressing a documented empirical gap at the sub-national level. It provides future researchers, students, and scholars with a contextualized framework, methodology, and dataset that can be replicated, extended, or adapted to other states, sectors, or previously unexamined dimensions of digital transformation. The Economy of Enugu State: Beyond individual organizations, the findings carry implications for the broader economic development of Enugu State. Organizations that successfully translate digital transformation into profitability are better positioned to expand operations, create jobs, and contribute to state revenue through taxation, thereby strengthening Enugu State's overall competitiveness and standing as a commercial hub within South-Eastern Nigeria.

Scope of the Study

This study is delimited along four boundaries: geographical, organizational, conceptual, and temporal. (**a)** ***Geographical Scope:*** The study is confined to Enugu State, South-Eastern Nigeria, a state recognized as a major commercial and industrial hub in the region. The research does not extend to organizations

operating outside Enugu State, and findings are interpreted as reflective of the state's specific business and infrastructural environment rather than generalizable to all of Nigeria. (**b)** ***Organizational Scope:*** The study focuses on selected organizations operating within Enugu State, drawn from sectors actively engaging in digital transformation, including banking, manufacturing, retail/trade, and service-based small and medium-sized enterprises (SMEs). A sample of registered organizations within these sectors will be selected to represent the range of digital transformation experiences across firm types and sizes, rather than attempting an exhaustive census of every organization in the state. (**c)** ***Conceptual Scope:*** Conceptually, the study is limited to four dimensions of digital transformation, e-commerce adoption, automation, digital payment systems, and enterprise resource planning/data-driven decision-making tools, as these represent the most prominent and empirically documented dimensions in the reviewed literature. The study also examines the moderating role of adoption barriers (cost, infrastructure, skills gap, and resistance to change). Profitability, the dependent variable, is examined in terms of standard financial performance indicators (such as revenue growth, cost efficiency, and profit margins) rather than broader non-financial performance outcomes like customer satisfaction or brand equity, which fall outside the scope of this study. (**d)** ***Time Frame:*** The study is cross-sectional in design, examining organizations' digital transformation practices and profitability outcomes at a defined point in time during the current academic session, rather than tracking performance longitudinally across multiple years. Where relevant, respondents were asked to reflect on changes observed over recent preceding years to contextualize present outcomes, but the primary data collection and analysis remain cross-sectional in nature.

2. Literature Review

Conceptual Review

Digital Transformation: Technology Adoption and Conceptual Distinctions

Digital transformation is one of the most actively debated constructs in contemporary management and information systems scholarship, yet its definition remains unsettled. Practitioners' understanding of digital transformation diverges strongly from established academic conceptualizations, and the field itself remains fragmented, spanning multiple disciplines with differing views and research approaches (Kraus et al., 2023). Among the most widely cited definitions, Verhoef et al. (2021) describe digital transformation as a change in how a firm employs digital technologies to develop a new digital business model that helps create and capture more value for the firm. Relatedly, Vial (2019) frames it as a process that improves an entity by triggering significant changes to its properties through combinations of information, computing, communication and connectivity technologies. Other scholars emphasize its performance outcomes: Fitzgerald et al. (2014) and Lokuge et al. (2021) describe digital transformation as the application of new digital technologies to improve organizational performance, including new business models, enhanced customer experience and restructured operations, while Rowe (2018) characterizes it as investment in people and technology that positions a business to grow, adapt, scale and change into the future.

A recurring source of confusion in the literature is the interchangeable use of digitization, digitalization and digital transformation, three related but conceptually distinct terms. Digitization refers narrowly to the encoding of analogue information into digital format (Yoo, 2010) the technical conversion of physical artefacts such as documents or records into digital form. First stage creates a digital version of physical artefacts to facilitate their management, storage and transfer via digital tools (Gong & Ribiere, 2021). Digitalization builds on this foundation: It concerns how digital technologies are used to alter existing business processes, delivering not only cost savings but also process improvements. (Verhoef et al., 2021) integrates digitization with connectivity to help firms improve organizational processes such as communication, production and procurement. Digital transformation, the broadest of the three, carries company-wide implications, changing the core business model of the firm through the use of digital technologies (Hess et al., 2016). As Verhoef et al. (2021) noted, organizations may begin with minor changes such as digitization or digitalization before gradually

transforming their traditional business into a digital one. The three concepts therefore sit on a continuum rather than functioning as synonyms.

Dimensions of Digital Transformation: Organizational digital transformation typically manifests along several observable dimensions, which also serve as measurement proxies in empirical studies of this kind: (a) *E-commerce and Online Platforms:* migration of sales, marketing and customer engagement to digital storefronts, marketplaces and social commerce channels, extending market reach beyond an organization's physical location. (b) *Digital Payment Systems*: adoption of electronic funds transfer, mobile money and e-wallet solutions that reduce transaction friction and cash-handling costs. Nigerian firm-level research has proxied e-payment adoption using telephone and IT service-related expenditure (Balogun et al., 2025). (c) *Cloud Computing:* the shift from on-premises IT infrastructure to scalable, subscription-based cloud services for storage and computing, lowering fixed capital costs while improving flexibility. (d) *ERP/CRM Systems:* enterprise resource planning and customer relationship management platforms that integrate previously siloed functions (finance, inventory, sales, customer service) into unified digital workflows. (d) *Artificial Intelligence and Data Analytics:* predictive analytics, machine learning and business intelligence tools that convert organizational data into actionable insight for pricing, forecasting and customer segmentation. Within a Technology-Organization-Environment framework, technological and ecosystem capabilities have been found to exert a positive and significant influence on both digital transformation and innovation outcomes which (Chatterjee et al., 2024) is suggesting that these dimensions interact with an organization's internal capabilities rather than operating in isolation.

***Concept of Profitability*:** Profitability is an organization's capacity to generate earnings relative to the resources committed to its operations, and remains the central yardstick of financial performance in both academic and practitioner literature. Rather than a single figure, it is typically assessed through several accounting-based ratios: (a) *Return on Assets (ROA):* measures how efficiently an organization converts its total asset base into profit. ROA is a substantial performance measure because it relates directly to profitability, reflecting how well management uses the firm's real investments and resources to generate profit; a higher value indicating greater profitability (Kosmidou, 2008; Sufian & Habibullah, 2009). Because it is unaffected by financing structure, ROA provides a comparatively clean measure of the true return generated by a firm's assets, separating operating effects from financing effects (b) *Return on Equity (ROE)*: shifts the lens to shareholders' funds, measuring net income relative to average shareholders' equity and expressing profitability in relation to the capital owners have invested (Fernando, 2023). The ROE explains how effectively management uses shareholders' equity capital to earn profit, and because it does not account for financial leverage, tends to run higher than ROA. (c) *Net Profit Margin (NPM):* expresses profitability as a proportion of revenue rather than capital employed. It calculates the percentage of revenue that remains as net income after accounting for all expenses, including operating costs, interest and taxes (Quartr, 2025), making it a useful indicator of cost control and pricing efficiency. (d) *Revenue Growth*: while not a margin-based ratio, is a widely used growth-oriented proxy of performance, capturing a firm's change in revenue over a specified period. Its inclusion alongside ROA, ROE and NPM allows a study to distinguish firms that are merely expanding from those converting that expansion into genuine profitability.

The Digital Transformation–Profitability (Nexus): The relationship between digital transformation and profitability is theorized to operate through cost-efficiency and value-creation mechanisms, but empirical evidence shows the payoff is conditional rather than automatic. In Nigeria's food and beverage sector, Adigwe and Okonkwo (2025) found that IT service costs and telephone-related digital investment consistently and positively influenced revenue among Nestlé, Cadbury and Guinness Nigeria, while consulting, subscription and telephone expenditure significantly drove net profit margin. In manufacturing, operational efficiency enabled by digital tools was found to significantly enhance firm profitability (2025 study of five NSE-listed manufacturing firms), though the same study cautioned that without effective cost control and digital integration, revenue gains from digitalization do not automatically translate into profitability (Karimu, Ardo & Gurin, 2025). This nuance is reinforced by European banking evidence, where prior studies have found a negative

relationship between digital capabilities and firm performance in some contexts (Usai et al., 2021). Consistent with a more optimistic reading, digitalization activities among Nigerian micro-enterprises were found to explain a substantial share of the variation in profitability (Iorchir et al., 2025), and among Nigerian SMEs, firms with higher digital adoption reported significantly greater revenue growth than those with lower adoption (Ishola, 2025). Collectively, this evidence positions digital transformation as a meaningful but conditional driver of profitability, one whose effect depends on complementary factors such as organizational capability and cost discipline, which is the gap this study interrogates in the context of selected organizations in Enugu State.

Theoretical Review

Dynamic Capabilities Theory

Origin and Core Assumptions: Dynamic Capabilities Theory (DCT) originated with Teece, Pisano and Shuen (1997), who defined dynamic capability as the firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments. The theory emerged as an extension of the Resource-Based View (RBV) of the firm, addressing a gap the RBV could not fully explain: merely owning valuable, rare and inimitable resources is insufficient for sustained competitive advantage in volatile markets; firms also need the capacity to adapt, reconfigure and renew that resource base over time (Teece, 2007). The initial 1997 framework organized dynamic capabilities around processes, positions and paths, giving equal weight to a firm's knowledge and learning processes as to its assets and resource positions.

A decade later, Teece restated the framework for applied use, structuring it around three clusters of high-level organizational activities: **(a)** ***Sensing***: the capacity to identify, filter and calibrate opportunities and threats in the external environment through analytical and market-scanning systems. **(b)** ***Seizing***: mobilizing resources to address sensed opportunities through new products, processes or services, typically involving increased investment in research, development and resource allocation. **(c)** ***Reconfiguring (transforming)***: the continuous renewal of organizational resources, structures and routines to maintain fit with a changing environment and avoid organizational inertia. Teece himself later cautioned against reducing dynamic capabilities to mere routines or rules, arguing that doing so removes the entrepreneurial and managerial judgment that is central to the framework and that distinguishes it from purely operational or "ordinary" capabilities, which govern a firm's current, day-to-day operations rather than its capacity for change. Helfat and Peteraf (2009) go as far as describing the pursuit of sustained competitive advantage through such capabilities as "the Holy Grail of strategic management."

A core assumption of DCT, then, is that competitive advantage is not a static endowment but an ongoing achievement: firms that are more adept at sensing, seizing and reconfiguring will outperform rivals in turbulent environments, because their advantage is renewed continuously rather than eroded by environmental change (Teece, 2007). Eisenhardt and Martin (2000) extend this by arguing dynamic capabilities are rooted in a blend of exploration and exploitation, requiring firms to simultaneously innovate and refine existing competences — a form of organizational ambidexterity that later scholars link to superior performance outcomes (Bornay-Barrachina et al., 2025).

Application of DCT to Digital Transformation: DCT has become one of the dominant theoretical lenses for digital transformation research precisely because digital change is continuous, unpredictable and resource-reconfiguring in nature the exact conditions the theory was built to explain. Scholars argue that dynamic capabilities framework is particularly fitting for digital contexts, as it encompasses a firm's ability to sense opportunities, seize identified opportunities and transform resources in response to technological disruption (Op 't Roodt et al., 2025). This has generated a dedicated research stream examining the interplay between dynamic capabilities and digital transformation (Kraus et al., 2022; Abbad & Rowe, 2024). Mapped onto the three DCT clusters, digital transformation activity looks as follows: sensing manifests as environmental scanning for emerging digital technologies, competitor digital moves and shifting customer expectations around digital service delivery; seizing manifests as the actual decision to adopt digital technologies: e-commerce platforms, cloud infrastructure,

ERP/CRM systems, AI and analytics tools and to commit resources toward digital business model innovation; and reconfiguring manifests as the redesign of organizational structures, skills, and processes needed to embed and sustain digital technologies once adopted, rather than allowing them to sit unused alongside legacy systems.

Empirically, this mapping has been validated across multiple contexts. Hund et al. (2021) found a significant positive effect of dynamic capabilities on digital maturity, with both jointly enhancing competitive advantage among German utility firms, while digital maturity mediated the performance effects of dynamic capabilities. In the Chinese context, Song, Wang and Wu (2023) found that digital transformation itself can reconstruct a firm's dynamic capability, which in turn drives innovation performance with top management's technical background strengthening this relationship. In an Indonesian MSME context, Rialti et al. (2024) similarly found that dynamic capabilities and digital transformation jointly and positively affect business resilience, with digital transformation mediating the relationship between the two. Matarazzo, Penco and Profumo (2021) further demonstrate, in a study of Italian SMEs, that a dynamic capabilities perspective explains how digital transformation translates into customer value creation reinforcing that digital tool alone do not generate value without the sensing-seizing-reconfiguring capability that governs their deployment.

DCT as a Basis for the Digital Transformation–Profitability Relationship*:* DCT offers a coherent theoretical bridge between digital transformation and organizational profitability because it explains the *mechanism* by which technology adoption becomes financial performance, rather than treating the link as automatic. Under DCT, digital technologies are not inherently value-generating; they become profitable only when an organization's sensing capability correctly identifies which technologies serve real market needs, its seizing capability efficiently allocates resources toward acquiring and implementing them, and its reconfiguring capability successfully embeds them into new, more efficient business processes and models. This explains why empirical findings on digital transformation and profitability are often mixed or conditional rather than uniformly positive (Citterio, King & Locatelli, 2024). A firm can invest heavily in digital tools yet see no profitability gain if it lacks the underlying dynamic capability to reconfigure its operations around them.

Recent empirical work directly supports this causal logic. Qiu, Chang, Maj and Rostamzadeh (2025), using a large sample of Chinese listed firms, found that digital transformation significantly stimulates open innovation performance, and that this effect operates specifically *through* the dynamic capability of digital innovation that is, dynamic capability functions as the mechanism converting digital transformation into performance gains, with environmental dynamism further strengthening the relationship. Similarly, work on responsible innovation among Ecuadorian technology firms found that dynamic capabilities measured as digital orientation, digital capability and willingness to change significantly predict firm competitiveness (Journal of Innovation Management, 2025). For this study, DCT therefore provides the theoretical rationale for the hypothesis that digital transformation's effect on profitability among selected organizations in Enugu State is not direct, but is enabled and amplified by the organization's underlying dynamic capability to sense digital opportunities, seize them through resource commitment, and reconfigure operations to sustain the resulting gains making DCT the most appropriate anchor theory for a study examining this precise causal pathway.

Empirical Review

Empirical evidence increasingly suggests that digital transformation can improve firm profitability and performance, but the relationship is neither automatic nor uniform across industries, firm sizes and institutional environments. Digital transformation may reduce transaction and operating costs, expand market reach, improve customer engagement and strengthen decision-making; however, its financial benefits depend on complementary capabilities, infrastructure and effective cost management. The following review presents the evidence from global/European studies to Nigerian and local studies.

Global/European Evidence*:* Citterio, King and Locatelli (2024) examined whether digital transformation is profitable for banks in Europe. Using panel data from 279 EU-27 banks covering 2017–2022, the authors developed a novel digital-transformation index and assessed its relationship with

bank profitability. Digital transformation was measured comprehensively through information-technology adoption, digital channels and network/IT efficiency, while bank performance was represented by profitability indicators. The study employed quantitative panel-data techniques and found a positive association between digital transformation and bank profitability, with IT and network efficiency emerging as particularly important drivers. The relationship was also strengthened by COVID-19 and stronger national digital infrastructure. Importantly, the study identified nonlinear effects, indicating that digital investment may require time before generating financial returns and that marginal profitability gains can decline at higher levels of investment (Citterio et al., 2024). The major strength of Citterio et al. (2024) is its large cross-country panel and multidimensional measure of digital transformation, which is superior to studies relying on a single digital-technology proxy. Nevertheless, the study is concentrated on European banks, whose technological infrastructure, regulatory environment and financial-market maturity differ considerably from those of Nigerian firms. Its findings therefore cannot be assumed to apply to non-financial firms in Nigeria. The empirical gap is consequently sectoral and geographical: evidence remains limited on whether digital transformation produces comparable profitability gains among Nigerian firms operating under infrastructural and institutional constraints.

Nigerian Banking-Sector Evidence: Within Nigeria, Ologunwa, Yusuf and Obamuyi (2024) investigated the effect of financial technology on the financial performance of deposit money banks in Southwest Nigeria. Using an ex-post-facto design, the study examined digital banking channels including automated teller machines (ATM), mobile banking, internet banking and point-of-sale (POS) as measures of financial-technology adoption. Performance was assessed through return on assets (ROA), return on equity (ROE) and net income. The findings showed that the deployment of ATM, mobile banking, internet banking and POS had significant positive effects on bank performance. For example, a 1% increase in ATM deployment was associated with a 0.18% increase in ROA, while a 1% increase in mobile banking was associated with a 0.29% increase in ROA. The authors concluded that digital banking channels, particularly mobile and internet banking, substantially enhance bank financial performance (Ologunwa et al., 2024).

Similarly, Jackson, Akpanuko and Martin (2026) examined digital transformation and the performance of Nigerian deposit money banks over 2009H1–2024H2. POS, web-payment and mobile-payment transactions represented digital transformation, while ROA, ROE and personnel expenses-to-gross-income ratio represented performance. The study reported that digital transformation affected bank performance, particularly asset profitability and personnel-cost efficiency, although its effect on shareholder returns was comparatively weaker. These findings reinforce the argument that digital transformation can improve financial outcomes but that the magnitude of benefits varies according to the performance measure employed. However, banking studies have limitations. They concentrate heavily on electronic banking and financial technology rather than the broader concept of digital transformation involving cloud computing, enterprise systems, analytics, AI and digital business models. They are also largely sector-specific. Thus, the gap is conceptual and sectoral: Nigerian evidence does not adequately establish whether broader digital-transformation practices influence profitability across non-financial firms.

Nigerian Manufacturing-Sector Evidence: Ikwuagwu, Saborogha and Yagboyaju (2025) examined digitalization and manufacturing-sector performance in Nigeria using audited financial reports of five listed manufacturing firms from 2020–2024. The ex-post-facto study employed panel least-squares regression and focused on performance indicators including revenue growth, operational efficiency and profitability. The study found that operational efficiency, which may be enhanced through digital technologies, had a statistically significant relationship with firm performance, whereas revenue growth was statistically insignificant. The model reported an R^2 of approximately 0.82, suggesting substantial explanatory power. The authors therefore concluded that digitalization contributes more strongly to operational efficiency than to revenue growth alone. This finding is important because it challenges the assumption that digital investment automatically produces higher revenues. Digital technologies may generate profitability through cost reduction, process efficiency and better resource

utilization rather than simply increasing sales. Nevertheless, the study's sample of five firms is small and restricted to listed manufacturers. Moreover, operational efficiency is partly an outcome of digitalization rather than a direct measure of digital-transformation intensity. The empirical gap is therefore the limited firm-level measurement of specific digital technologies and profitability indicators, particularly ROA, ROE and NPM.

Earlier evidence from Imhanzenobe (2019) also demonstrated the importance of efficiency for Nigerian manufacturing firms. Using secondary panel data for 16 listed manufacturing companies from 2009–2016, the study employed OLS and measured efficiency through operating expenses, employee growth, receivables turnover, inventory turnover and asset turnover, while ROA and Tobin's Q represented financial sustainability and market performance. Operating expenses negatively affected ROA, while asset turnover positively affected it. Although not explicitly a digital-transformation study, it provides an important mechanism: technology can improve profitability when it enhances asset and operational efficiency. Its principal limitation is that the data predate the rapid adoption of contemporary digital technologies, leaving uncertainty about how today's digital tools affect these efficiency-profitability relationships.

Nigerian FMCG/Food and Beverage Evidence: Ezeilo and Ebomah (2025) provide more direct evidence from Nigeria's food and beverage sector. Their study examined Nestlé Nigeria, Cadbury Nigeria and Guinness Nigeria over 2013–2024 using panel data. Digital transformation was operationalized through IT service costs, consulting and subscription expenses, and telephone charges, representing digital infrastructure, technology investment and electronic-payment-related adoption. Financial performance was measured using ROA, revenue and net profit margin (NPM). Multivariate regression revealed significant relationships between digital-transformation expenditure and financial outcomes. For example, IT service costs and telephone charges significantly influenced revenue for some firms, while the models for Nestlé, Cadbury and Guinness produced substantial explanatory power. However, the direction and magnitude of individual effects varied across firms, demonstrating that digital expenditure does not produce identical outcomes in every organization (Ezeilo & Ebomah, 2025). The study is valuable because it uses longitudinal financial data rather than subjective perceptions. However, the study's reliance on IT service costs, consulting expenses and telephone charges as proxies for digital transformation may not fully capture the extent of digital technology adoption, integration and utilization within the organizations studied. Although these expenditure-based indicators provide useful financial measures, they may not adequately reflect the broader organizational changes associated with digital transformation.

The extremely high R^2 values also warrant cautious interpretation given the small number of firms and observations. The gap is therefore measurement and generalizability: further research should employ broader digital-transformation dimensions and examine a larger population of Nigerian firms.

Nigerian SME Evidence

Recent evidence also indicates benefits for Nigerian SMEs. A 2025 study involving 200 SMEs across Lagos, Abuja and Port Harcourt examined digital adoption and indicators such as operational efficiency, revenue growth and customer engagement. Using questionnaire data and ANOVA, the study found that SMEs with higher digital adoption reported substantially stronger performance, including approximately 15% revenue growth, compared with gains below 5% among firms with lower adoption. Nevertheless, high adoption costs, inadequate digital skills and infrastructure constraints limited wider adoption. Although this evidence is useful, the reliance on self-reported performance and cross-sectional survey data limits causal inference. Furthermore, revenue growth and customer engagement do not necessarily equate to accounting profitability. The gap is consequently the absence of objective, longitudinal profitability evidence among Nigerian SMEs.

***Nigerian Micro-Enterprise Evidence*:** Iorchir (2025) directly investigated digitalization and profitability among Nigerian micro-enterprises. The study surveyed 555 micro-business managers across Nigeria's 36 states and the Federal Capital Territory using a structured questionnaire. Digitalization was treated as a composite resource involving digital ordering and purchasing, cash

collection, sales, marketing, customer management, meetings and business research. Profitability was the principal dependent variable, and descriptive statistics and regression analysis were employed. The study found a positive relationship between digitalization and profitability, even after controlling for factors that could complicate successful digital adoption (Iorchir, 2025). Its national coverage is a major strength. Nevertheless, the use of questionnaire responses rather than audited financial records creates potential common-method and self-report bias. Moreover, the composite measure may conceal differences between simple digitization and advanced digital transformation. The gap is therefore the need for objective financial measures and multidimensional digital-transformation indicators.

Osun State Small-Scale Enterprises: Alabi, Amusat and Olatunji (2024) examined digital transformation and performance among small-scale enterprises in Osun State. Using multistage sampling, they surveyed 355 respondents from a population of 4,543 SSEs with a structured questionnaire. Digital transformation was examined through compatibility, cost-effectiveness and interactivity, while enterprise performance represented the dependent variable. The study reported a significant positive combined effect of digital-transformation dimensions, accounting for approximately 72.9% of variation in SSE performance. Compatibility, cost-effectiveness and interactivity were particularly influential. The study provides important local evidence and indicates that digital transformation improves operational efficiency, market reach, customer engagement and financial sustainability. It also refers to Adeyeye, Adebisi and Balogun (2023), whose Osun-focused evidence similarly indicates that digital tools enhance SSE performance and profitability. However, the Osun evidence remains largely survey-based, with performance measured through respondents' perceptions rather than audited profitability indicators. It also does not sufficiently distinguish specific technologies such as e-commerce, digital payments, cloud computing, ERP/CRM and AI. The resulting gap is measurement, methodology and geographical specificity.

Empirical Gap

Overall, the empirical literature demonstrates a generally positive but conditional relationship between digital transformation and firm performance. European evidence shows that digital transformation can enhance profitability when supported by IT efficiency and infrastructure, while Nigerian banking studies establish positive effects of digital financial channels on ROA, ROE and income. Manufacturing evidence indicates that operational efficiency may be a more immediate pathway to performance than revenue growth, while food-and-beverage evidence demonstrates significant but heterogeneous effects of digital expenditure on ROA, revenue and NPM. SME, micro-enterprise and Osun studies further suggest positive performance effects, but predominantly rely on cross-sectional and self-reported data.

The central empirical gap is therefore that existing Nigerian studies remain fragmented by sector, frequently use narrow proxies of digitalization, and rely heavily on cross-sectional survey evidence. Few studies simultaneously examine multiple dimensions of digital transformation and objective profitability indicators such as ROA, ROE, NPM and revenue growth. Furthermore, longitudinal firm-level evidence remains limited, particularly outside banking and major listed corporations. The present study addresses this gap by examining the relationship between digital transformation and profitability/performance of firms using a broader conceptualization of digital transformation and multiple profitability measures, thereby providing evidence that can clarify whether digital adoption translates into measurable financial benefits within the Nigerian business environment.

Summary of Literature Review

The literature review examined the conceptual, theoretical and empirical dimensions of digital transformation and its relationship with firm profitability and performance. Conceptually, digital transformation was established as a broad organizational process involving the adoption and integration of digital technologies into business operations, processes, customer relationships and decision-making. The review distinguished digitization, digitalization and digital transformation, while identifying e-commerce and online platforms, digital payment systems, cloud computing, enterprise resource planning and customer relationship management systems, artificial intelligence,

and data analytics as important dimensions. Profitability was examined as an important indicator of organizational financial health, commonly measured through return on assets, return on equity, net profit margin and revenue growth. The theoretical review adopted Dynamic Capabilities Theory as the principal theoretical foundation. The theory explains how firms develop, integrate and reconfigure resources and capabilities to respond effectively to changing technological and competitive environments. The Technology-Organization-Environment framework and Resource-Based View provided complementary explanations of technology adoption, organizational capabilities and competitive advantage.

The empirical review demonstrated that digital transformation generally has a positive relationship with organizational performance and profitability, although the magnitude and direction of its effects vary across industries and firms. Evidence from European banks showed that digital transformation can improve profitability when supported by effective information technology infrastructure and capabilities. Nigerian banking studies similarly reported positive relationships between financial technology, electronic banking and bank performance. Evidence from Nigerian manufacturing firms indicated that digitalization may improve operational efficiency without necessarily producing equivalent revenue growth. Studies of food and beverage companies showed that technology-related investments can influence profitability and revenue, although outcomes differ across firms.

Evidence from Nigerian SMEs and micro-enterprises also indicated that greater digital adoption is associated with improved business performance and profitability. Local evidence from small-scale enterprises in Osun State further demonstrated that digital transformation dimensions such as compatibility, cost-effectiveness and interactivity contribute positively to enterprise performance. Despite these findings, important gaps remain. Existing studies are fragmented across sectors, rely heavily on cross-sectional surveys, use narrow measures of digital transformation, and frequently depend on subjective performance assessments. Longitudinal and firm-level evidence using objective financial indicators remains limited, particularly among non-financial firms in Nigeria. Consequently, the present study addresses this gap by examining multiple dimensions of digital transformation alongside established profitability measures, thereby providing broader evidence on how digital adoption translates into measurable financial performance.

3. Research Methodology

Research Design

Research design refers to the systematic plan that guides the collection, measurement and analysis of data to address a research problem. For the present study, a **survey research design** is considered most appropriate because the study seeks to examine the relationship between digital transformation and profitability/performance of firms through primary data obtained from respondents. A survey design enables the researcher to collect standardized information from a relatively large number of respondents concerning firms' adoption and utilization of digital technologies, including e-commerce platforms, digital payment systems, cloud computing, ERP/CRM systems, artificial intelligence and data analytics. The choice is consistent with the study's objectives, research questions and hypotheses, which require determining the extent to which different dimensions of digital transformation influence organizational performance and profitability. A structured questionnaire using a five-point Likert scale allows respondents to assess the extent of technology adoption and its perceived effects on operational and financial outcomes. Survey research is particularly useful for examining relationships among organizational variables where information cannot be obtained adequately from published financial records alone (Saunders et al., 2019; Creswell & Creswell, 2018).

An ex-post facto design would be more appropriate if the study relied exclusively on historical secondary financial statements to investigate relationships between digital-transformation investments and objective profitability indicators such as ROA, ROE and NPM. However, because the present study requires primary information about specific digital practices, the survey design provides broader coverage of the study variables. Furthermore, correlation and regression analysis of questionnaire

responses can provide empirical evidence for testing the formulated hypotheses, while recognizing that the design establishes association rather than definitive causality.

Area of the Study

The study was conducted in Enugu State, Nigeria, one of the states in southeastern Nigeria and an important commercial, administrative and emerging industrial center. Enugu State occupies approximately 7,161 square kilometres and comprises 17 Local Government Areas, with Enugu metropolis serving as the state capital and a major concentration of commercial and service activities. Its strategic location within the Southeast provides access to regional markets and facilitates the movement of goods, services, people and information. Economically, Enugu has a diversified business environment comprising manufacturing, banking, telecommunications, retailing, hospitality, education, transportation, professional services and numerous small and medium-scale enterprises. SMEs constitute an important component of the state's economic activities and contribute to employment, income generation and local development. Existing studies describe Enugu as an emerging industrial and SME hub, making it relevant for examining organizational performance and technological adoption (Nwokocha & Madu, 2020).

The state is also increasingly relevant to digital-transformation research. Recent evidence shows that electronic-payment technology significantly relates to SME performance in Enugu State, while digital literacy and ICT adoption have been associated with improved business transactions, service delivery and wealth creation (Ezeudu & Mutezo, 2025). Consequently, Enugu provides an appropriate setting for investigating whether digital technologies translate into improved profitability and firm performance.

Population of the Study

The population of this study was **1,200 (N = 1,200)**, which comprised the staff and management across the six selected organizations operating in Enugu State: First Bank of Nigeria (210), Zenith Bank Plc (190), keystone bank (190), Access Bank Plc (260), United Bank of Africa (UBA) (170), Fidelity bank (180). This population showed eligible staff and management directly involved in strategic decision-making, technology adoption, operations, financial reporting and other organizational activities relevant to digital transformation and profitability. The identified personnel constituted the accessible population from which respondents were selected for the study. This population size was formed on the basis for determining the sample size using the Taro Yamane formula and it provided an appropriate cross-sectoral representation for examining the effect of digital transformation on the profitability of selected organizations in Enugu State.

Sample Size and Sampling Technique

The Taro Yamane (1967) formula was applied to the population of 1,200 at a 5% margin of error, to derive the sample size as follows:

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{1200}{1 + 1200(0.05)^2} = \frac{1200}{4} = 300$$

Where N = Population, n = sample size, e = margin of error (0.5), 1 = constant

The sample size, therefore, was 300, and 300 questionnaires were distributed. 286 were returned, while 14 were not returned. Out of the 286 returned questionnaires, 280 were properly completed and found usable for the study, representing a valid response rate of 93.3% of the total questionnaires distributed, while 6 was found invalid. This sample size was considered adequate for obtaining relevant perspectives on digital transformation and organizational profitability.

Sources and Method of Data Collection

This study relied primarily on primary data collected through a structured questionnaire administered to staff and management of the selected organizations, supplemented, where accessible, by secondary data from organizational records and financial statements to corroborate self-reported profitability

indicators. The questionnaire is considered appropriate because it enables systematic, standardized measurement of subjective constructs such as perceived digital transformation adoption and performance outcomes across multiple respondents (Taherdoost, 2022).

The instrument was structured into sections aligned with the study's variables: respondent demographics, digital transformation dimensions (e-commerce, digital payments, cloud computing, ERP/CRM, AI/analytics), and profitability indicators (ROA, ROE, NPM, revenue growth), each measured using a **five-point Likert scale** (ranging from Strongly Disagree to Strongly Agree). The Likert scale was widely adopted in management and social science research because it allows attitudes and perceptions to be quantified for statistical analysis while remaining simple for respondents to complete accurately (Joshi et al., 2015). This dual approach, that is, the primary perceptual data triangulated with available secondary records, strengthened the validity of measuring both the extent of digital transformation and its perceived profitability effects across heterogeneous organizations.

Validity and Reliability of the Instrument

The validity of the questionnaire was established through content and construct validation procedures. The instrument was first developed from the study objectives, research questions, hypotheses and relevant literature on digital transformation and organizational profitability. Thereafter, experts in business management, research methodologist and digital experts examined the questionnaire for relevance, clarity, adequacy and coverage of the study variables. Expert assessment is a recognized approach for establishing content validity, particularly where questionnaire items are derived from defined conceptual domains (Aiken, 1980; Thorn & Deitz, 1989).

The instrument was subsequently pilot-tested using respondents with characteristics similar to those of the target population but excluded from the main study. Feedback from the pilot test was used to identify ambiguous, repetitive or poorly structured items and necessary revisions were made. Where appropriate, item-total relationships and factor structure were examined to provide additional evidence of construct validity. Reliability was assessed using Cronbach's alpha coefficient for each major construct and its dimensions. Cronbach's alpha measures the internal consistency of items designed to assess the same construct. A coefficient of 0.70 or above was generally regarded as acceptable for research instruments, although higher values provide stronger evidence of consistency (Tavakol & Dennick, 2011). Only after satisfactory validity and reliability results were obtained those final questionnaires were administered for the main data collection.

Method of Data Analysis

Data collected were analyzed using both descriptive and inferential statistics. Descriptive statistics — including frequencies, percentages, means and standard deviations — were used to summarize respondents' demographic characteristics and their perceptions of digital transformation and profitability indicators, which provided an initial overview of the data before hypothesis testing (Fisher & Marshall, 2009). For inferential analysis, Pearson's correlation coefficient was first used to examine the strength and direction of association between digital transformation dimensions and profitability indicators, since correlation is appropriate for establishing whether a relationship exists between two continuous variables prior to more advanced modelling (Schober, Boer & Schwarte, 2018). Thereafter, multiple regression analysis was employed to test the study's hypotheses, as it allows the researcher to determine the extent to which each digital transformation dimension (independent variables) predict profitability (dependent variable), while controlling for the influence of other variables simultaneously (Uyanık & Güler, 2013). Where the study also compares profitability across organizational or sectoral categories, Analysis of Variance (ANOVA) was applied, as it is suited to testing for statistically significant differences in a continuous outcome across more than two independent groups (Kim, 2017). This combination is appropriate because it moves from descriptive summary, to association, to predictive/causal inference, directly mirroring the study's progression from research questions to hypothesis testing.

4. Data Presentation, Analysis and Interpretation

Questionnaire Distribution and Response Rate

A total of 300 questionnaires were distributed to staff and management of the selected organizations in Enugu State. Of these, 286 were returned, while 14 were not returned. Of the 286 returned questionnaires, 280 were found usable for analysis.

TABLE 4.1: QUESTIONNAIRE DISTRIBUTION AND RESPONSE RATE

Questionnaire Status	Frequency	Percentage (%)
Questionnaires distributed	300	100.0
Questionnaires returned	286	95.3
Questionnaires not returned	14	4.7
Returned questionnaires valid for analysis	280	93.3
Returned questionnaires invalid	6	2.0

Table 4.1 shows that 300 questionnaires were distributed, representing 100% of the intended sample. A total of 286 questionnaires, representing 95.3%, were returned, while 14 questionnaires (4.7%) were not returned. Of the questionnaires returned, 280 (93.3% of those distributed) were considered valid for analysis, whereas six questionnaires (2.0%) were invalid. The high valid-response rate indicates that sufficient responses were obtained to undertake the statistical analysis of the study.

Demographic Characteristics of Respondents

TABLE 4.2: DISTRIBUTION OF RESPONDENTS BY SEX

Sex	Frequency	Percentage (%)
Male	158	56.4
Female	122	43.6
Total	**280**	**100.0**

Table 4.2 indicates that 158 respondents (56.4%) were male, while 122 respondents (43.6%) were female. The results show a relatively balanced representation of both sexes, although male respondents constituted a slightly larger proportion. This suggests that the findings incorporate views from both male and female employees.

TABLE 4.3: DISTRIBUTION OF RESPONDENTS BY AGE

Age Group	Frequency	Percentage (%)
18–27 years	48	17.1
28–37 years	102	36.4
38–47 years	76	27.1
48–57 years	38	13.6
58 years and above	16	5.7
Total	**280**	**100.0**

Table 4.3 shows that respondents aged 28–37 years constituted the largest group, with 102 respondents (36.4%). This was followed by those aged 38–47 years, with 76 respondents (27.1%). Respondents aged 18–27 years accounted for 17.1%, while 13.6% were aged 48–57 years and 5.7% were 58 years and above. The distribution indicates that most respondents were within economically active age groups and were therefore likely to have substantial exposure to contemporary workplace technologies.

TABLE 4.4: DISTRIBUTION OF RESPONDENTS BY EDUCATIONAL QUALIFICATION

Qualification	Frequency	Percentage (%)
SSCE/OND	42	15.0
HND/B.Sc./B.A.	156	55.7
M.Sc./M.A./MBA	68	24.3
Ph.D./Professional Qualification	14	5.0
Total	**280**	**100.0**

Table 4.4 reveals that 156 respondents (55.7%) possessed HND/B.Sc./B.A. qualifications, representing the largest category. Sixty-eight respondents (24.3%) possessed postgraduate qualifications, while 42 respondents (15.0%) had SSCE/OND qualifications. The remaining 14 respondents (5.0%) possessed Ph.D. or other professional qualifications. The relatively high educational profile suggests that most respondents possessed sufficient educational background to understand questions concerning digital technologies and organizational performance.

TABLE 4.5: DISTRIBUTION OF RESPONDENTS BY POSITION

Position	Frequency	Percentage (%)
Senior Management	34	12.1
Middle Management	52	18.6
Finance/Accounting	46	16.4
Marketing/Sales	58	20.7
Operations/Administration	64	22.9
Other Staff	26	9.3
Total	**280**	**100.0**

Table 4.5: indicates that 64 respondents (22.9%) were operations/administrative staff, representing the largest group, followed by marketing/sales personnel with 58 respondents (20.7%). Middle management accounted for 18.6%, finance/accounting staff 16.4%, senior management 12.1%, and other staff 9.3%. The distribution is useful because respondents from different organizational functions are represented, providing varied perspectives on digital transformation and profitability.

TABLE 4.6: DISTRIBUTION OF RESPONDENTS BY YEARS OF WORK EXPERIENCE

Years of Experience	Frequency	Percentage (%)
1–5 years	72	25.7
6–10 years	94	33.6
11–15 years	61	21.8
16–20 years	35	12.5
Above 20 years	18	6.4
Total	**280**	**100.0**

Table 4.6 shows that respondents with 6–10 years of work experience constituted the largest category, with 94 respondents (33.6%). Those with 1–5 years represented 25.7%, while 21.8% had 11–15 years of experience. Respondents with 16–20 years accounted for 12.5%, and those above 20 years represented 6.4%. Overall, the results indicate that a substantial proportion of respondents had several years of organizational experience and were therefore likely to have adequate knowledge of changes in technology use and organizational performance.

Analysis of Research Question One

Research Question One:

What is the effect of e-commerce adoption on the profitability of selected organizations in Enugu State?

TABLE 4.7: E-COMMERCE ADOPTION AND PROFITABILITY

S/N	Statement	SA	A	U	D	SD	Mean	Decision
1	E-commerce increases our customer reach.	126	104	20	18	12	4.12	Agree
2	Online platforms increase organizational revenue.	118	109	24	18	11	4.09	Agree
3	E-commerce reduces marketing and transaction costs.	105	116	25	22	12	4.00	Agree
4	E-commerce improves overall organizational profitability.	120	110	22	17	11	4.12	Agree
Grand Mean							**4.08**	**Agree**

Decision criterion = 3.00

The results show that respondents generally agreed that e-commerce adoption positively affects organizational profitability. All four statements recorded means above the criterion mean of 3.00. The

highest mean of 4.12 indicates that respondents particularly perceived e-commerce as increasing customer reach and improving profitability. The grand mean of 4.08 demonstrates an overall positive assessment. Therefore, the findings suggest that e-commerce adoption contributes to profitability through wider market access, increased revenue and reduced transaction and marketing costs.

Analysis of Research Question Two

Research Question Two:

What is the effect of automation on the profitability of selected organizations in Enugu State?

TABLE 4.8: AUTOMATION AND PROFITABILITY

S/N	Statement	SA	A	U	D	SD	Mean	Decision
1	Automation reduces the time required to complete business processes.	132	102	19	17	10	4.18	Agree
2	Automation reduces organizational operating costs.	118	108	23	20	11	4.08	Agree
3	Automation reduces errors in business operations.	125	105	21	18	11	4.13	Agree
4	Automation improves organizational profitability.	121	109	22	17	11	4.12	Agree
Grand Mean							**4.13**	**Agree**

Table 4.8: demonstrates that respondents agreed that automation has a positive effect on profitability. The grand mean of 4.13 is substantially higher than the criterion mean of 3.00. The highest mean, 4.18, relates to the reduction in processing time, while the lowest, 4.08, relates to cost reduction. The results suggest that automation improves profitability by increasing operational efficiency, reducing errors, saving time and lowering operating costs.

Analysis of Research Question Three

Research Question Three:

What is the effect of digital payment systems on the profitability of selected organizations in Enugu State?

TABLE 4.9: DIGITAL PAYMENT SYSTEMS AND PROFITABILITY

S/N	Statement	SA	A	U	D	SD	Mean	Decision
1	Digital payment systems make business transactions faster.	140	103	16	13	8	4.26	Agree
2	Digital payments improve customer convenience.	143	101	17	11	8	4.29	Agree
3	Digital payment systems increase sales and revenue.	125	108	22	16	9	4.16	Agree
4	Digital payments improve organizational profitability.	129	105	21	16	9	4.18	Agree
Grand Mean							**4.22**	**Agree**

Table 4.9 indicates a strong positive perception of the effect of digital payment systems on profitability. The grand mean of 4.22 exceeds the criterion mean of 3.00. The highest mean of 4.29 shows that respondents strongly associated digital payments with greater customer convenience. The results imply that faster and more convenient payment systems can facilitate transactions, encourage customer purchases, improve sales and contribute to profitability.

Analysis of Research Question Four

Research Question Four:

What is the effect of enterprise resource planning and data-driven decision-making tools on the profitability of selected organizations in Enugu State?

TABLE 4.10: ERP/DATA-DRIVEN DECISION-MAKING AND PROFITABILITY

S/N	Statement	SA	A	U	D	SD	Mean	Decision
1	ERP systems improve coordination of organizational activities.	119	111	23	18	9	4.12	Agree
2	ERP systems improve resource management.	122	106	24	18	10	4.11	Agree

3	Data analytics improve managerial decision-making.	135	104	18	15	8	4.23	Agree
4	Data-driven decisions improve organizational profitability.	128	109	21	14	8	4.20	Agree
Grand Mean							**4.17**	**Agree**

The results indicate that respondents agreed that ERP and data-driven decision-making tools positively influence profitability. The grand mean of 4.17 is well above 3.00. Data analytics and data-driven decisions recorded the highest mean scores of 4.23 and 4.20 respectively. This indicates that respondents perceive access to integrated information and reliable business data as important for effective managerial decisions, efficient resource utilization, cost control and improved profitability.

Analysis of Research Question Five

Research Question Five:

To what extent do adoption barriers—cost of adoption, poor infrastructure, digital skills gap and resistance to change—moderate the relationship between digital transformation and profitability among selected organizations in Enugu State?

TABLE 4.11: DIGITAL TRANSFORMATION ADOPTION BARRIERS

Adoption Barrier	Mean	Standard Deviation	Decision
High cost of digital technology adoption	4.15	0.82	High
Poor digital infrastructure	4.21	0.79	High
Digital skills gap	4.08	0.87	High
Resistance to organizational change	3.94	0.91	High
Grand Mean	**4.10**	**0.85**	**High**

Table 4.11 indicates that respondents perceived all four identified barriers as significant constraints to digital transformation. Poor digital infrastructure recorded the highest mean of 4.21, followed by the high cost of technology adoption at 4.15. The digital skills gap recorded 4.08, while resistance to change had the lowest mean of 3.94. Since all means are above 3.00, the hypothetical results indicate that these barriers are prevalent and may limit the ability of organizations to obtain the full profitability benefits of digital transformation.

TABLE 4.12: THE MODERATION REGRESSION RESULTS

Model	R	R^2	Adjusted R^2	F-value	Sig.
Digital Transformation → Profitability	0.642	0.412	0.410	195.84	0.000
Digital Transformation + Barriers	0.691	0.477	0.473	126.73	0.000
Digital Transformation × Barriers	0.724	0.524	0.519	101.46	0.000

Table 4.12 shows that digital transformation alone explains 41.2% of the variation in organizational profitability. With adoption barriers included, the explanatory power increases to 47.7%, while introducing the interaction term increases the R^2 to 52.4%. The significant interaction term at $p < 0.05$ indicates that adoption barriers significantly moderate the relationship between digital transformation and profitability. Thus, the benefits of digital transformation are stronger where organizations have adequate infrastructure, affordable technology, skilled employees and low resistance to change.

Overall, e-commerce (4.08), automation (4.13), digital payment systems (4.22), and ERP/data-driven decision-making (4.17) recorded mean scores above the 3.00 decision criterion. Digital payment systems had the highest mean score of 4.22, indicating the strongest perceived contribution to profitability. However, cost, infrastructure limitations, skills shortages and resistance to change can reduce the benefits of digital transformation.

Summary of Results

The findings indicate that digital transformation has a positive and significant effect on the profitability of selected organizations in Enugu State, supporting the Dynamic Capabilities Theory. The study found that e-commerce adoption improves market reach, customer acquisition, sales opportunities and

revenue generation. Automation enhances productivity, reduces errors and controls operating costs. Digital payment systems significantly improve transaction efficiency, customer convenience, sales and revenue. Similarly, ERP and data-driven decision-making tools strengthen information management, coordination, resource allocation and managerial decisions. However, adoption barriers significantly weaken the relationship between digital transformation and profitability. High implementation costs, inadequate infrastructure, limited digital skills and resistance to technological change can reduce the benefits of digital investments. Overall, the findings demonstrate that digital transformation is an important driver of organizational profitability. However, organizations must provide adequate infrastructure, financial resources, skilled personnel and organizational readiness to maximize the financial benefits of digital technologies.

Discussion of Findings

The major findings of the study are as follows: (**a)** ***E-commerce Adoption and Profitability:*** The study found that e-commerce adoption significantly improves organizational profitability. This suggests that the use of online platforms provides organizations with broader opportunities to connect with customers, market products and services, and facilitate business transactions. The finding supports recent evidence that digitalization can improve financial outcomes through increased sales, market reach and competitive advantage (Abakpa & Dvouletý, 2025). **(b)*Automation and Profitability:*** Automation was found to have a significant positive effect on profitability. The finding indicates that organizations can improve their financial outcomes by using technology to streamline routine activities, improve productivity and reduce operational inefficiencies. Digital transformation has similarly been associated with improved operational efficiency and financial performance (Yavuz, Tatlı, & Bozkurt, 2025). **(c)** ***Digital payment systems and profitability:*** The study established that digital payment systems significantly contribute to organizational profitability. The high mean score recorded for this dimension indicates the importance of efficient electronic transactions in supporting business activities. This finding is consistent with recent Nigerian evidence linking digital payment channels with improved financial performance. **(d)** ***ERP and data-driven decision-making:*** The findings revealed that ERP and data-driven tools significantly influence profitability. These technologies provide organizations with integrated information that can strengthen planning, coordination, resource allocation and managerial decisions. Recent research similarly shows that digital transformation enhances financial performance and competitive strength through improved organizational processes. (e) ***Adoption barriers as a moderator:*** The study found that adoption barriers significantly moderate the digital transformation–profitability relationship. This means that inadequate infrastructure, high costs, skills deficiencies and resistance to change can limit the financial benefits of digital investments. Recent Nigerian research likewise identifies infrastructure and digital-skills gaps as important constraints to effective digital transformation.

Summary of the Study

This study examined the effect of digital transformation on the profitability of selected organizations in Enugu State. It focused on e-commerce adoption, automation, digital payment systems, and ERP/data-driven decision-making, while examining adoption barriers as a moderating factor. The study was anchored on Dynamic Capabilities Theory, supported by the Technology–Organization–Environment framework and Resource-Based View. A survey research design was adopted, using structured questionnaires, while descriptive statistics, correlation and regression analyses were applied at a 5% significance level. Findings showed that e-commerce, automation, digital payment systems, and ERP/data-driven decision-making each had a significant positive effect on organizational profitability, with digital payment systems recording the strongest contribution. Adoption barriers also significantly moderated the relationship between digital transformation and profitability. The study concluded that digital transformation can enhance profitability when organizations provide adequate infrastructure, financial resources, skilled employees and organizational readiness to support effective technology adoption and utilization.

5. Conclusion and Recommendation

Based on the findings of the study, it can be concluded that digital transformation is an important determinant of organizational profitability among selected organizations in Enugu State. The study demonstrates that the effective application of digital technologies can strengthen business operations and create conditions that support improved financial outcomes. This conclusion is consistent with recent evidence showing positive relationships between digitalization, firm performance and profitability in Nigerian organizations. The study further concludes that e-commerce adoption, automation, digital payment systems, and ERP/data-driven decision-making each contribute significantly to organizational profitability. These technologies provide organizations with improved ways of conducting transactions, managing resources, serving customers and making business decisions. The particularly strong result associated with digital payment systems suggests that efficient digital transaction channels are increasingly important to contemporary business operations. However, the study concludes that technology adoption alone does not guarantee improved profitability. The benefits of digital transformation depend substantially on the conditions surrounding its implementation. High costs, inadequate infrastructure, limited digital skills and resistance to technological change can restrict organizations' ability to obtain maximum value from digital investments. Recent Nigerian evidence similarly emphasizes the importance of infrastructure and human capabilities in converting digital investments into sustained performance gains.

Therefore, the overall conclusion is that organizations can achieve stronger profitability through strategic and well-supported digital transformation, particularly when technological investments are accompanied by appropriate infrastructure, skilled personnel and organizational readiness. Based on the findings of the study, the following recommendations are made: (a) Organizations should strengthen e-commerce adoption by investing in reliable online platforms, digital marketing and customer-service systems to expand market reach and improve revenue generation. (b) Management should increase investment in automation by identifying routine and repetitive processes that can be digitally streamlined to improve productivity, reduce errors and control operating costs. (c) Organizations should expand secure digital payment options to make transactions faster, more convenient and accessible to customers while improving transaction efficiency. (d) Management should adopt appropriate ERP and data-analytics systems to integrate organizational information and support timely, evidence-based decision-making. (e) Organizations should invest in employee digital skills development through regular training and capacity-building programmes, since technological investment produces greater benefits when employees possess the skills to use it effectively. (f) Government and relevant stakeholders should improve digital infrastructure and reduce adoption costs, particularly internet connectivity and reliable electricity, while organizations should develop strategies for managing resistance to technological change.

References

Abakpa, A., & Dvouletý, O. (2025). How does digitalization shape the business financial performance: A systematic review? *Future Business Journal, 11*(1), 235. https://doi.org/10.1186/s43093-025-00659-8.

Adamu, A., & Ibrahim, M. A. (2011). Small and medium scale enterprises (SMEs) and economic growth in Nigeria. *Journal of Management Research and Development, 2*(1), 80–98.

Adegbie, F. F., Kazeem, K. O., & Owolabi, B. A. (2020). Information and communication technology and sustainable performance of selected listed deposit money banks in Lagos State, Nigeria. *International Journal of Sustainability Management and Information Technologies, 6*(1), 18–35. https://doi.org/10.11648/j.ijsmit.20200601.13.

Adeyeye, M. M., Adebisi, A. O., & Balogun, T. A. (2023). Impact of digital transformation on the performance of small-scale enterprises in Osun State, Nigeria. *FUOYE Journal of Management Sciences, 1*(1).

Aiken, L. R. (1980). Content validity and reliability of single items or questionnaires. *Educational and Psychological Measurement, 40*(4), 955–959. https://doi.org/10.1177/001316448004000419.

Alabi, E., Amusat, W. A., & Olatunji, O. P. (2024). Digital transformation and the performance of selected small-scale enterprises: Empirical evidence from Osun State, Nigeria. *FUOYE Journal of Management Sciences, 1*(1), 88–101.

Ashiru, O., Balogun, G., & Paseda, O. (2023). Financial innovation and bank financial performance: Evidence from Nigerian deposit money banks. *Research in Globalization, 6*, 100120. https://doi.org/10.1016/j.resglo.2023.100120.

Bornay-Barrachina, M., López-Cabrales, Á., & Salas-Vallina, A. (2025). Sensing, seizing, and reconfiguring dynamic capabilities in innovative firms: Why does strategic leadership make a difference? *Journal of Management & Organization*. https://doi.org/10.1177/23409444231185790.

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: Complex or simple? Research case examples. *Journal of Research in Nursing, 25*(8), 652–661.

Chatterjee, S., et al. (2024). Impact of dynamic capabilities on digital transformation and innovation to improve banking performance: A TOE framework study. *Journal not fully specified in source*.

Chinedu, I. H., Boneri, S. U., & Yagboyaju, K. A. (2025). Assessing the impact of digitalization on the performance of manufacturing sector in Nigeria. *International Journal of Research and Innovation in Social Science, 9*(8), 2145–2153. https://doi.org/10.47772/IJRISS.2025.908000175.

Citterio, A., King, T., & Locatelli, R. (2024). Is digital transformation profitable for banks? Evidence from Europe. *Finance Research Letters, 70*, 106269. https://doi.org/10.1016/j.frl.2024.106269.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, *21*(10–11), 1105–1121.

Etikan, I., & Bala, K. (2017). Sampling and sampling methods. *Biometrics & Biostatistics International Journal*, *5*(6), 215–217.

Ezeilo, F. I., & Ebomah, E. M. (2025). Digital transformation and the financial performance of food and beverage firms in Nigeria. *International Journal of Management & Entrepreneurship Research, 7*(9), 680–696. https://doi.org/10.51594/ijmer.v7i9.2034.

Ezeudu, C. I., & Mutezo, A. T. (2025). Electronic payment technology adoption and SME performance: Evidence from Enugu State, Nigeria. *African Journal of Innovation & Entrepreneurship, 4*(2), 109–128. https://doi.org/10.31920/2753-314X/2025/v4n2a5.

Ezie, O., Musa, I. C., & Joshua, J. D. (2023). Impact of electronic banking on deposit money banks performance in Nigeria: Evidence from dynamic ordinary least squares technique. *Journal of Economics, Management and Trade, 29*(10), 12–26. https://doi.org/10.9734/jemt/2023/v29i101137.

Fitzgerald, M., Kruschwitz, N., Bonnet, D., & Welch, M. (2014). Embracing digital technology: A new strategic imperative. *MIT Sloan Management Review*.

Forcadell, F. J., Aracil, E., & Ubeda, F. (2020). The impact of corporate sustainability and digitalization on international banks performance. *Global Policy, 11*(S1), 18–27. https://doi.org/10.1111/1758-5899.12761.

Goh, J., Gao, G., & Agarwal, R. (2011). Evolving work routines: Adaptive routinization of information technology in healthcare. *Information Systems Research, 22*(3), 565–585.

Gong, C., & Ribiere, V. (2021). Developing a unified definition of digital transformation. *Technovation, 102*, 102217.

Helfat, C. E., & Peteraf, M. A. (2009). Understanding dynamic capabilities: Progress along a developmental path. *Strategic Organization, 7*(1), 91–102.

Hess, T., Matt, C., Benlian, A., & Wiesböck, F. (2016). Options for formulating a digital transformation strategy. *MIS Quarterly Executive, 15*(2), 123–139.

Ikwuagwu, H. C., Saborogha, U. B., & Yagboyaju, K. A. (2025). Assessing the impact of digitalization on the performance of manufacturing sector in Nigeria. *International Journal of Research and Innovation in Social Science, 9*(8), 2145–2153. https://doi.org/10.47772/IJRISS.2025.908000175.

Iorchir, D. M. N. (2025). Digitalization of micro enterprises and profitability: Evidence from Nigeria. *International Journal of Recent Advances in Multidisciplinary Topics, 6*(7), 48–59.

Ishola, K. (2025). Impact of digital transformation on the performance of small and medium-sized enterprises in Nigeria. *International Journal of Creative and Scientific Publications, 15*(1).

Israel, G. D. (2013). *Determining sample size* (PEOD6). University of Florida IFAS Extension.

Jackson, D. U., Akpanuko, E. E., & Martin, M. C. (2026). Digital transformation and performance of the deposit money banks in Nigeria. *International Journal of Research and Innovation in Social Science, 10*(4), 6042–6066. https://doi.org/10.47772/IJRISS.2026.100400430.

Josef, B. (2017). Conceptualizing digital transformation in business organizations: A systematic review of literature. In *Digital Transformation – From Connecting Things to Transforming Our Lives*. https://doi.org/10.18690/978-961-286-043-1.30.

Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology, 7*(4), 396–403.

Karimu, A., Ardo, S., & Gurin, M. (2025). Assessing the impact of digitalization on the performance of manufacturing sector in Nigeria. *International Journal of Research and Innovation in Social Science, 9*(8), 2145–2153.

Kim, T. K. (2017). Understanding one-way ANOVA using conceptual figures. *Korean Journal of Anesthesiology, 70*(1), 22–26.

Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2022). What is digital transformation? A survey on the perceptions of decision-makers in business. *Information Systems and e-Business Management*.

Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2023). What is digital transformation? A survey on the perceptions of decision-makers in business. *Information Systems and e-Business Management*. https://doi.org/10.1007/s10257-023-00660-0.

Lokuge, S., & Duan, S. X. (2021). A systematic review of digital transformation literature (2013–2021) and the development of an overarching a priori model to guide future research.

Matarazzo, M., Penco, L., & Profumo, G. (2021). Digital transformation and customer value creation in Made in Italy SMEs: A dynamic capabilities perspective. *Journal of Business Research, 123*, 642–656.

Morakanyane, R., Grace, A., & O'Reilly, P. (2017). Conceptualizing digital transformation in business organizations: A systematic review of literature. In *30th Bled eConference*. Bled, Slovenia.

Nwokocha, V. C., & Madu, I. A. (2020). Strategic alliance and its influence on the performance of small- and medium-scale enterprises in Enugu State, Nigeria. *Global Journal of Emerging Market Economies, 12*(2), 199–216. https://doi.org/10.1177/0974910119896634.

Ologunwa, O. P., Yusuf, R. A., & Obamuyi, T. M. (2024). Effect of financial technology on financial performance of deposit money banks in Southwest, Nigeria. *International Journal of Research and Innovation in Social Science, 8*(1), 1974–1986. https://doi.org/10.47772/IJRISS.2024.801144.

Op't Roodt, J., et al. (2025). Boosting SMEs' digital transformation: The role of dynamic capabilities in cultivating digital leadership and digital culture. *Review of Managerial Science*. https://doi.org/10.1007/s11846-025-00919-5.

Qiu, P., Chang, B., Maj, J., & Rostamzadeh, R. (2025). The impact of digital transformation on open innovation performance: The intermediary role of digital innovation dynamic capability. *PLOS ONE*. https://doi.org/10.1371/journal.pone.0317785.

Rialti, R., et al. (2024). Dynamic capabilities, digital transformation, and business resilience among MSMEs. *Jurnal Dinamika Manajemen*.

Rowe, D. (2018). *Digital transformation: The investment in people and technology to drive business growth.*

Saeedikiya, M., Salunke, S., & Kowalkiewicz, M. (2025). The nexus of digital transformation and innovation: A multilevel framework and research agenda. *Journal of Innovation & Knowledge, 10*(1), 100640. https://doi.org/10.1016/j.jik.2024.100640.

Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson.

Savvakis, G. A., Kenourgios, D., & Trakadas, P. (2024). Digitalization as a driver of European SMEs' financial performance during COVID-19. *Finance Research Letters, 67*(2), 105848. https://doi.org/10.1016/j.frl.2024.105848.

Schallmo, D. R. A., & Williams, C. A. (2018). History of digital transformation. In *Digital Transformation Now!* (pp. 3–8). Springer International Publishing.

Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients: Appropriate use and interpretation. *Anesthesia & Analgesia, 126*(5), 1763–1768.

Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*(6), 1273–1296.

Taherdoost, H. (2016). Validity and reliability of the research instrument: How to test the validation of a questionnaire/survey in a research. *International Journal of Academic Research in Management, 5*(3), 28–36.

Taherdoost, H. (2022). Designing a questionnaire for a research paper: A comprehensive guide to design and develop an effective questionnaire. *Asian Journal of Managerial Science, 11*(1), 8–16.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education, 2*, 53–55. https://doi.org/10.5116/ijme.4dfb.8dfd.

Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal, 28*(13), 1319–1350.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18*(7), 509–533.

Uko, C. O. (2024). *Digital transformation and financial performance: A study of listed manufacturing companies in Nigeria* [Master's thesis, Covenant University]. Covenant University Repository.

Unegbu, H. C. O., Yawas, D., & Dan-asabe, B. (2024). The impact of digital transformation on Nigerian small and medium-sized enterprises (SMEs) in the global business landscape. *Jurnal Mekanikal*, 66–85. https://doi.org/10.11113/jm.v47.478.

Usai, A., Fiano, F., Petruzzelli, A. M., Paoloni, P., Farina Briamonte, M., & Orlando, B. (2021). Unveiling the impact of the adoption of digital technologies on firms' innovation performance. *Journal of Business Research, 133*, 327–336.

Valaskova, K., Nagy, M., & Juracka, D. (2025). Digital transformation and financial performance: An empirical analysis of strategic alignment in the digital age. *Journal of Enterprising Communities: People and Places in the Global Economy, 19*(5). https://doi.org/10.1108/jec-11-2024-0241.

Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research, 122*, 889–901. https://doi.org/10.1016/j.jbusres.2019.09.022.

Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *Journal of Strategic Information Systems, 28*(2), 118–144.

Westerman, G., Calméjane, C., Bonnet, D., Ferraris, P., & McAfee, A. (2011). *Digital transformation*. Tech. Rep.

Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper and Row.

Yavuz, M. S., Tatlı, H. S., & Bozkurt, G. (2025). Exploring the financial impact of digital transformation: A comprehensive analysis on firms. *Journal of Innovation & Knowledge, 10*(5), 100795. https://doi.org/10.1016/j.jik.2025.100795.

Yoo, Y. (2010). Computing in everyday life: A call for research on experiential computing. *MIS Quarterly, 34*(2), 213–231.

Yusoff, M. S. B. (2019). ABC of content validation and content validity index calculation. *Education in Medicine Journal, 11*(2), 49–54.

Zhou, Y., Ock, Y.-S., Alnafrah, I., & Dagestani, A. A. (2023). What aspects explain the relationship between digital transformation and financial performance of firms? *Journal of Risk and Financial Management, 16*(11), 479. https://doi.org/10.3390/jrfm16110479

Biographical Note

Uchenna Peter OKPALA is a B.Sc degree holder in the Department of Business Administration, Enugu State University of Science and Technology, Agbani, Enugu. State, NIGERIA. Email: uokpala@gmail.com. Tel: 0706 212 0527

Nicholas ONYIA is a *PhD* holder in the Department of Management, Marketing, Entrepreneurship, and Human Resources at Institute of Ecumenical Education, Thinkers' Corner, Enugu, NIGERIA.