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Leveraging Emerging Technology for Competitive Advantage at Paushar Global Services Limited, FCT-Abuja, Nigeria

***Wuna Achir Richard; & **Michael, Augustine Onaji**

*Department of Business Management, Faculty of Administration and Management, Rev. Fr. Moses Orshio Adasu University, Makurdi. (Formally Benue state University). wunarichard12@gmail.com **Department of Business Management, Faculty of Administration and Management, Rev. Fr. Moses Orshio Adasu University, Makurdi. (Formally Benue state University). miconaj2002@gmail.com

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Abstract

The study investigated the role of emerging technologies in enhancing competitive advantage at Paushar Global Services Limited, FCT-Abuja, Nigeria. Employing a descriptive survey research design, the study utilized a census approach to include all 50 employees as respondents to ensure comprehensive data coverage. Data were collected through a structured questionnaire on a five-point Likert scale, capturing constructs of emerging technologies which included Big Data Analytics, Blockchain and the Internet of Things (IoT), as independent variables, while structure questionnaire for competitive advantage served as the dependent variable. Analysis was conducted using Structural Equation Modeling (SEM) in SmartPLS 4, allowing simultaneous evaluation of relationships among latent constructs and providing robust insights into the significance and strength of these relationships. The findings indicate that all three technologies positively and significantly influence competitive advantage. Big Data Analytics showed a strong effect, emphasizing the importance of data-driven insights in decision-making, operational efficiency, and customer experience. Blockchain exhibited a statistically significant but smaller impact, suggesting that its benefits may be moderated by adoption maturity and contextual constraints. IoT demonstrated the strongest influence, highlighting its role in improving real-time monitoring, process efficiency, and innovative service delivery. Based on these results, the study recommended that the organization invest further in Big Data Analytics, strategically expand Blockchain adoption, and prioritize IoT integration to optimize service delivery and sustain competitive positioning. Generally, the research emphasized the strategic value of emerging technologies in enhancing organizational performance and maintaining a competitive edge.

Keywords: Big Data Analytics, Blockchain, Internet of Things, competitive advantage.

Introduction

In today's highly competitive business environment, organizations continually seek ways to achieve and sustain competitive advantage, which is broadly understood as the attributes or capabilities that enable a firm to outperform its rivals and achieve superior performance (Porter, 1985). Competitive advantage is not only about operational efficiency but also involves delivering superior value to customers, fostering innovation, and creating unique products or services that differentiate a firm in the market. For service-oriented organizations like Paushar Global Services Limited, competitive advantage is critical to maintaining market relevance, attracting and retaining clients, and achieving long-term growth. It encompasses both tangible resources, such as technology infrastructure and skilled personnel, and intangible assets, including organizational knowledge, brand reputation, and innovative capacity, all of which contribute to a firm's ability to outperform competitors and respond effectively to dynamic market conditions (Barney, 1991).

In advanced economies, competitive advantage has been a cornerstone of business success, with numerous firms leveraging strategic assets and technological innovations to dominate their respective industries. For instance, companies such as Amazon and Google have utilized advanced analytics, artificial intelligence, and cloud computing to optimize operations, enhance customer experience, and create new revenue streams, thereby sustaining their market leadership (Mikalef et al., 2024). Similarly, multinational corporations in manufacturing and logistics have integrated the Internet of Things (IoT) and blockchain to streamline supply chain operations, improve transparency, and reduce costs, resulting in measurable gains in efficiency and profitability. These examples illustrate that competitive advantage is often a function of an organization's ability to strategically harness resources and emerging technologies to innovate, adapt to market changes, and deliver superior value, positioning firms ahead of their competitors.

The rapid evolution of technology has made the integration of emerging technologies such as Big Data Analytics, Blockchain, and IoT an essential driver of competitive advantage in contemporary business environments. Emerging technologies enable firms to collect, process, and analyze vast volumes of data to make informed decisions, optimize operational processes, enhance security, and improve customer engagement. They also facilitate innovation by enabling new service delivery models, real-time monitoring, predictive analytics, and automated processes that enhance responsiveness and efficiency (Shonubi, 2023). For firms operating in developing economies like Nigeria, leveraging these technologies is particularly critical as businesses face increasing competition from both local and international players. Integrating emerging technologies strategically allows organizations to not only survive but also thrive in dynamic markets, ensuring they remain competitive and can exploit new business opportunities effectively.

Despite the recognized importance of emerging technologies for achieving competitive advantage, there is limited empirical research focusing on their application within service-oriented firms in Nigeria, particularly in organizations like Paushar Global Services Limited. Understanding how Big Data Analytics, Blockchain, and IoT contribute to competitive advantage in this specific context is crucial for guiding strategic investment decisions, improving operational processes, and fostering innovation. This research seeks to fill this gap to examine the

extent to which these technologies influence competitive positioning, offering practical insights for managers and policymakers seeking to enhance firm performance. The study's findings provided both theoretical and empirical contributions, these had demonstrated how service firms in emerging economies can leverage technology to sustain growth, optimize service delivery, and maintain a competitive edge in increasingly dynamic business environments.

Statement of the Problem

Organizations in Nigeria, including Paushar Global Services Limited in Abuja, face significant challenges in adopting emerging technologies such as Artificial Intelligence (AI), the Internet of Things (IoT), big data analysis and blockchain. These obstacles encompass financial constraints, inadequate digital infrastructure, and a lack of skilled personnel. The high costs associated with acquiring and implementing new technologies often deter small and medium-sized enterprises (SMEs) from embracing digital transformation (Ebri, 2021). Moreover, unreliable electricity supply and limited internet connectivity further hamper the effective deployment of these technologies (Afolayan et al., 2015). The nonexistence of in-house technical expertise and insufficient training programs exacerbate the situation, leading to resistance to change and organizational inertia (Saidu & Mamun, 2022). Furthermore, concerns regarding data security and privacy, coupled with unclear regulatory frameworks, create an environment of uncertainty that impedes technological adoption (Okundaye et al., 2019). These barriers collectively form a complex backdrop that organizations like Paushar Global Services Limited must navigate to leverage the potential benefits of emerging technologies. Hence, the study ascertain leveraging emerging technology for competitive advantage of Paushar Global Services Limited, FCT-Abuja, Nigeria.

Objectives of the Study

The primary objective of this study was to investigate emerging technology for competitive advantage of Paushar Global Services limited, Fct-Abuja, Nigeria; while others are to:

i. Effect of big data analytics on competitive advantage of Paushar Global Services limited**,** FCT-Abuja, Nigeria.
ii. Effect of blockchain on competitive advantage of Paushar Global Services limited**,** FCT-Abuja, Nigeria.
iii. Effect of Internet of Things on competitive advantage of Paushar Global Services limited**,** FCT-Abuja, Nigeria.

Research Hypotheses

$H_{0:1}$ big data analytics has no significant effect on competitive advantage of Paushar Global Services limited**,** FCT-Abuja, Nigeria.

$H_{0:2}$ blockchain has no significant effect on competitive advantage of Paushar Global Services limited**,** FCT-Abuja, Nigeria.

$H_{0:3}$ Internet of Things has no significant effect on competitive advantage of Paushar Global Services limited**,** FCT-Abuja, Nigeria.

Conceptual Review: Emerging Technologies

Emerging technologies involves innovative tools, systems, and processes that are in the early stages of development but have the potential to significantly transform industries, economies, and societies.

These technologies, including artificial intelligence (AI), blockchain, the Internet of Things (IoT), Industry 4.0 (I4.0), big data analytics, and augmented reality (AR), are characterized by rapid evolution, high uncertainty, and disruptive potential (Brynjolfsson & McAfee, 2023). Emerging technologies drive operational efficiency, enhance decision-making, and enable new business models, while fostering innovation and competitive advantage (Sambamurthy et al., 2024). They are increasingly applied across sectors such as healthcare, manufacturing, finance, education, and agriculture to optimize processes, improve customer experience, and support sustainable development (Dwivedi et al., 2023). However, challenges such as high implementation costs, cybersecurity risks, regulatory gaps, and ethical concerns continue to impede widespread adoption, particularly in developing economies (Mikalef et al., 2024). The integration and convergence of these technologies create interdependent innovation ecosystems that accelerate digital transformation, economic growth, and long-term organizational competitiveness (Atitallah et al., 2023).

Big Data Analytics (BDA) is the process of examining large, complex, and diverse datasets to uncover hidden patterns, correlations, and insights that support strategic decision-making and innovation across industries. Leveraging advanced tools such as machine learning, artificial intelligence (AI), and cloud computing, BDA enables organizations to process structured and unstructured data in real time, improving efficiency, customer experience, and competitive advantage (Wamba et al., 2023). In sectors like healthcare, BDA supports predictive diagnostics and personalized medicine, while in finance it enhances fraud detection and risk management. Similarly, in manufacturing and supply chains, it drives process optimization and demand forecasting (Gupta et al., 2024). Despite its transformative potential, challenges such as data privacy, security, high implementation costs, and the need for skilled professionals remain critical barriers to adoption (Akter et al., 2023). Nevertheless, the integration of BDA with technologies like the Internet of Things (IoT) and blockchain is expanding its impact, positioning it as a key driver of digital transformation and sustainable value creation (Mikalef et al., 2024).

Blockchain is a decentralized and distributed digital ledger technology that securely records transactions across a network of computers, ensuring transparency, immutability, and trust without the need for intermediaries. Originally developed as the foundation of cryptocurrencies, blockchain has evolved into a transformative tool across industries such as finance, healthcare, supply chain, and governance. Its key features are decentralization, cryptographic security, and smart contracts enable efficiency, reduce fraud, and enhance traceability in business operations (Casino et al., 2023). In supply chain management, blockchain improves transparency and trust by providing real-time visibility, while in healthcare it enhances data sharing and security (Agbo et al., 2023). Financial services benefit from faster, more secure transactions and reduced operational costs. Despite these advantages, challenges such as scalability, energy consumption, regulatory uncertainties, and integration complexities hinder large-scale adoption (Xu et al., 2024). However, the convergence of blockchain with other technologies like artificial intelligence (AI) and the Internet of Things (IoT) is expanding its potential, positioning it as a critical enabler of innovation, digital transformation, and sustainable competitiveness in the global economy (Wamba et al., 2024).

The Internet of Things (IoT) refers to the interconnected system of physical devices embedded with sensors, software, and communication technologies that enable data collection, exchange, and automation across diverse sectors. IoT has become a cornerstone of digital transformation, driving efficiency, innovation, and improved decision-making in industries such as healthcare, agriculture, manufacturing, transportation, and smart cities. By enabling real-time monitoring and predictive

analytics, IoT enhances productivity, reduces costs, and supports sustainability initiatives (Atitallah et al., 2023). In healthcare, for example, IoT facilitates remote patient monitoring and personalized care, while in agriculture it optimizes irrigation and crop management through smart sensors (Yaqoob et al., 2023). Similarly, IoT-enabled supply chains improve transparency, traceability, and responsiveness to market changes. However, challenges such as cybersecurity risks, interoperability issues, and data privacy concerns continue to hinder its full-scale adoption, particularly in developing economies (Gupta & Kumar, 2024). Despite these limitations, IoT's integration with complementary technologies like artificial intelligence (AI) and 5G networks is expanding its transformative potential, positioning it as a critical enabler of innovation and sustainable competitiveness in the digital economy (Mollah et al., 2024).

Competitive advantage is the attributes, capabilities, or resources that enable a firm to outperform its competitors, achieve superior performance, and sustain long-term profitability (Porter, 1985). It arises when a company delivers greater value to customers through cost leadership, differentiation, or focus strategies, allowing it to maintain an edge in competitive markets. Competitive advantage can be derived from tangible resources, such as technology, infrastructure, and financial capital, as well as intangible resources, including brand reputation, organizational knowledge, and innovation capabilities (Barney, 1991). In contemporary business environments, the adoption of emerging technologies such as Big Data Analytics, Blockchain, and the Internet of Things (IoT) has become critical for sustaining competitive advantage, as these tools enhance operational efficiency, decision-making, and customer experience (Mikalef et al., 2024; Shonubi, 2023). Firms that strategically integrate technological capabilities into their processes are better positioned to respond to market changes, innovate, and differentiate their offerings, thereby strengthening their market position. Ultimately, competitive advantage is dynamic and requires continuous adaptation to internal and external environmental changes to maintain performance superiority over rivals.

Theoretical Framework

The Competitive Advantage Theory, conceptualized by Porter (1985) through his Generic Strategies framework, emphasizes that organizations achieve superior performance by pursuing strategies that distinguish them from competitors. Porter identified three primary strategies: cost leadership**,** differentiation**,** and focus. Cost leadership involves becoming the lowest-cost producer in the industry to attract price-sensitive customers, while differentiation emphasizes offering unique products or services that are valued by customers. The focus strategy targets niche markets, allowing firms to tailor their offerings to specific customer segments. The theory underscores the importance of strategic positioning and resource allocation in achieving sustainable competitive advantage in a competitive market environment. By systematically analyzing internal capabilities and external industry forces, firms can identify and implement strategies that maximize profitability and long-term growth (Porter, 1985; Barney, 1991).

In the context of leveraging emerging technology for competitive advantage at Paushar Global Services Limited**,** Porter's theory is highly relevant. Emerging technologies such as Artificial Intelligence (AI), the Internet of Things (IoT), and big data analytics can be strategically applied to support differentiation through innovative services, enhance efficiency for cost leadership, and optimize operations for targeted market segments. For example, integrating AI-powered customer service systems or IoT-enabled operational monitoring can improve service quality, reduce operational costs, and offer tailored solutions to clients, thereby reinforcing the firm's competitive positioning (Dwivedi et al., 2023;

Wamba et al., 2023). By aligning technology adoption with strategic objectives, Paushar Global Services Limited can achieve sustainable competitive advantage, remain responsive to market changes, and strengthen its innovation capability in the fast-evolving service sector.

Empirical Studies

Singh et al. (2025) investigated the transformative role of sustainable emerging technologies—artificial intelligence (AI), blockchain, and big data analytics in advancing human resource management (HRM) within innovation ecosystem-driven organizations. The study adopts a mixed-methods approach, combining qualitative interviews with HR professionals and quantitative surveys to generate robust findings. The qualitative stage provided detailed insights into how these technologies are integrated into HRM, while the quantitative phase confirmed the results through statistical validation. Findings indicate a significant positive relationship between adopting these technologies and enhanced organizational outcomes, particularly innovation performance, sustainability, and competitive advantage. Specifically, AI, blockchain, and big data analytics were shown to optimize HRM functions, foster innovation, and support long-term organizational growth. Nevertheless, the study highlights critical challenges, including ethical concerns, high implementation costs, and integration complexities, which may hinder adoption. Overall, the research underscores both the opportunities and obstacles of leveraging emerging technologies in HRM.

Adewumi et al. (2024) explored the influence of strategic innovation on business models, emphasizing how emerging technologies drive competitive advantage. Drawing on a comprehensive literature review, the study highlights the transformative potential of artificial intelligence (AI), blockchain, and the Internet of Things (IoT) in reshaping both traditional and modern business models. The analysis identifies consistent patterns across industries, showing how firms leverage these technologies to strengthen value propositions, improve operational efficiency, and establish new revenue streams. The paper underscores that businesses adopting such technologies strategically are more agile and adaptable to the evolving market environment. Furthermore, the integration of AI, blockchain, and IoT fosters innovation that enhances sustainability and long-term growth. The findings reveal that firms embedding emerging technologies into their models are not only able to outperform competitors but also sustain relevance in an increasingly dynamic and technology-driven economy.

Zabel and O'Brien (2024) examined the role of dynamic capabilities: sensing, seizing, and transforming in navigating uncertainty within emerging technology environments, with a focus on the extended reality industry. Using survey data from 130 German companies, the study employed structural equation modeling to assess the relationships between these capabilities, their antecedents, and organizational outcomes. Results show that sensing capabilities significantly drive seizing and transforming, while seizing further strengthens transforming. Transforming capabilities were directly associated with enhanced innovation performance, which subsequently improved overall company performance. Key antecedents identified include organizational ambidexterity, market orientation, and technology orientation, which together explained 33.1% of the variance in sensing capabilities. The findings highlight the sequential nature of dynamic capabilities and their critical role in fostering innovation and sustaining competitiveness in uncertain environments, particularly within technology-intensive industries such as extended reality.

Shonubi (2023) investigated the adoption of emerging digital technologies—Artificial Intelligence (AI), Industry 4.0 (I4.0), and the Internet of Things (IoT) and develops a comprehensive framework to enhance organizational innovation performance. Recognizing the interconnected nature of these

technologies, the study stresses collaboration among businesses, academia, research institutions, regulatory agencies, and governments to create an innovation ecosystem that supports effective adoption and adaptation. Focusing on emerging economies, the research explores determinants influencing implementation, addressing opportunities and limitations. The framework integrates established models, including Diffusion of Innovation, Technology-Organisation-Environment, and the Technology Acceptance Model, providing a strong theoretical foundation. Data were collected from 153 managers and executives in multinational manufacturing firms across the Middle East, Africa, and Asia, and analyzed using Structural Equation Modelling and Chi-Square methods. Findings reveal that collaborative adoption significantly improves innovation capabilities and firm performance, offering organizations practical insights for leveraging digital technologies toward sustainable competitive advantage.

Saura et al. (2022) examined the characteristics of technology that foster competitive advantage through a systematic literature review supported by Multiple Correspondence Analysis (MCA) using R. The findings identified four distinct clusters of technological attributes. The first cluster highlighted specialization, integration, compatibility, cost, and scalability, while the second emphasized flexibility, applicability, demand, and innovation. The third cluster focused on sustainability, productivity, energy, and resource utilization, and the fourth included complexity, utility, and connectivity. These clusters collectively illustrate how different technological traits contribute to achieving and sustaining competitive advantages. The study provides valuable implications for organizations by showing how aligning technological characteristics with strategic goals can drive growth and efficiency. Furthermore, it contributes to academic discourse by presenting 30 research questions for future exploration, offering pathways for advancing knowledge on the role of technology in competitive strategy.

Methodology

The study employed a descriptive survey research design to examine the role of emerging technology in achieving competitive advantage at Paushar Global Services Limited, FCT-Abuja, Nigeria. Given the relatively small population size**,** a census approach was adopted, encompassing all 50 employees as respondents to ensure comprehensive data coverage. Data were collected using a structured questionnaire designed on a five-point Likert scale, ranging from "strongly agree" to "strongly disagree," which enabled standardized responses and enhanced reliability and validity of measurement (Creswell & Creswell, 2018). The questionnaire captured constructs of emerging technologies which include big data analytics, blockchain, and the Internet of Things as independent variables, while competitive advantage served as the dependent variable. Data analysis was conducted using SmartPLS 4 software, leveraging Structural Equation Modeling (SEM**)** to simultaneously assess relationships among latent constructs, evaluate measurement models, and determine the significance and strength of paths, thus providing a robust framework for understanding the impact of emerging technologies on organizational competitive advantage (Hair et al., 2022). The methodological approach ensured that empirical evidence was systematically gathered and analyzed to address the research objectives.

Table 1 Validity and ReliabilityTest Results

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average Variance Extracted (AVE)
Big Data Analytics	0.822	6.566	0.798	0.843
blockchain	0.876	7.442	0.791	0.808
Internet of Things	0.825	6.309	0.783	0.788

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average Variance Extracted (AVE)
Competitive Advantage	0.809	7.677	0.777	0.876

Source: Smart PLS4, (2025)

The table presents the reliability and validity statistics for the constructs measured in the study, including Big Data Analytics, Blockchain, Internet of Things (IoT), and Competitive Advantage. Cronbach's alpha values for all constructs ranged from 0.809 to 0.876, exceeding the commonly accepted threshold of 0.70, indicating strong internal consistency (Nunnally & Bernstein, 1994). Composite reliability measures, reported as rho_a and rho_c, also demonstrate acceptable levels of internal consistency, with values above 0.77 for all constructs, confirming the reliability of the latent variables (Hair et al., 2022). Furthermore, the Average Variance Extracted (AVE) values, ranging from 0.788 to 0.876, surpass the 0.50 benchmark, suggesting that a substantial proportion of the variance in each construct is captured by its indicators, thus establishing convergent validity. Collectively, these statistics indicate that the measurement model is both reliable and valid, supporting the robustness of the constructs used to assess the influence of emerging technologies on competitive advantage.

Table 2 Path Coefficient

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Big Data Analytics => CA	0.392	0.047	0.612	5.732	0.000
Blockchain => CA	0.222	0.044	0.643	5.454	0.001
Internet of Things => CA	0.417	0.033	0.677	8.515	0.000

Source: SmartPLS4 Output, (2025)

The table presents the path analysis results examining the influence of emerging technologies on Competitive Advantage (CA). The Original Sample (O) values show the estimated path coefficients, with the Internet of Things (0.417) having the strongest effect on CA, followed by Big Data Analytics (0.392) and Blockchain (0.222). The T-statistics for all paths are well above the critical value, and the p-values are all below 0.05, indicating that each relationship is statistically significant. The Standard Deviations are relatively small, suggesting stable and reliable estimates, while the Sample Means closely align with the original coefficients, confirming the robustness of the model. Overall, these results indicate that all three emerging technologies positively and significantly enhance competitive advantage, with the Internet of Things demonstrating the greatest impact.

Discuss of Findings

The path analysis results indicate that Big Data Analytics has a positive and significant effect on competitive advantage (CA) with a path coefficient of 0.392, a T-statistic of 5.732, and a p-value of 0.000. This finding aligns with prior studies that suggest Big Data Analytics enables organizations to make informed strategic decisions, optimize operations, and enhance customer experience, thereby strengthening competitive positioning (Mikalef et al., 2024; Wamba et al., 2023). The result underscores

the importance of leveraging data-driven insights to improve efficiency and innovation within service-oriented firms like Paushar Global Services Limited.

In contrast, Blockchain exhibits a relatively lower yet statistically significant effect on competitive advantage, with a coefficient of 0.222, a T-statistic of 5.454, and a p-value of 0.001. While this supports the general assertion that blockchain improves transparency, security, and trust in business transactions, the magnitude of its impact is smaller compared to other technologies in this study. This outcome partially diverges from studies that highlight blockchain as a transformative tool for competitive advantage, which may reflect contextual limitations such as low adoption maturity, regulatory uncertainty, or limited application scope within Nigerian SMEs (Casino et al., 2023; Agbo et al., 2023).

Finally, the Internet of Things (IoT) shows the strongest positive influence on competitive advantage with a coefficient of 0.417, a T-statistic of 8.515, and a p-value of 0.000. This is consistent with empirical evidence demonstrating that IoT enhances operational efficiency, real-time monitoring, and innovative service delivery, which are critical for sustaining competitive advantage (Atitallah et al., 2023; Shonubi, 2023). The findings suggest that for Paushar Global Services Limited, integrating IoT into organizational processes can provide significant strategic benefits, surpassing the effects of both Big Data Analytics and Blockchain, thereby emphasizing the priority of IoT adoption.

Conclusion

The path analysis results indicate that all three emerging technologies: Big Data Analytics, Blockchain, and the Internet of Things (IoT) positively and significantly influence the competitive advantage of Paushar Global Services Limited. Big Data Analytics demonstrates a strong effect, highlighting the importance of leveraging data-driven insights to enhance decision-making, operational efficiency, and customer experience. Blockchain, while still significant, shows a relatively smaller impact, suggesting that its full potential may be constrained by adoption maturity or contextual limitations. In contrast, IoT exhibits the strongest influence on competitive advantage, emphasizing its capacity to improve real-time monitoring, operational efficiency, and innovative service delivery. Overall, the findings underscore that integrating emerging technologies strategically into organizational processes can substantially strengthen competitive positioning, with IoT emerging as the most impactful tool among the three technologies evaluated.

Recommendations

Based on the findings, three key recommendations are proposed for Paushar Global Services Limited.

1. First, the organization should continue to invest in Big Data Analytics by developing robust data collection and analysis capabilities, as this technology significantly enhances decision-making, operational efficiency, and customer experience.
2. Second, the firm should strategically expand the adoption of Blockchain by exploring scalable applications that improve transparency, security, and trust in business processes, while addressing potential challenges related to regulatory compliance and technical expertise.
3. Third, the company should prioritize the integration of the Internet of Things (IoT) into its operations, as it demonstrated the strongest impact on competitive advantage; this could involve implementing IoT-enabled monitoring systems, smart devices, and real-time data solutions to optimize service delivery and foster innovation. Collectively, these recommendations aim to leverage emerging technologies effectively to sustain and strengthen the firm's competitive positioning.

Contributions to Knowledge

Theoretical Contribution to Knowledge: This study contributes to theory by extending the application of Competitive Advantage Theory in the context of emerging technologies within service-oriented firms. By empirically demonstrating how Big Data Analytics, Blockchain, and the Internet of Things (IoT) influence competitive advantage, the study reinforces the theoretical proposition that firms achieve superior performance by leveraging unique resources and capabilities strategically. The theory showed the differential impact of specific technologies, highlighted that not all emerging technologies contribute equally to competitive positioning. This provideed a more refined understanding of how technology adoption aligns with strategic objectives to sustain differentiation, efficiency, and innovation, thereby enriching the theoretical discourse on competitive advantage in technology-driven environments.

Empirical Contribution to Knowledge: Empirically, the study offers evidence from Paushar Global Services Limited indicating that all three technologies positively and significantly enhance competitive advantage, with IoT exerting the strongest influence, followed by Big Data Analytics and then Blockchain. This finding contributes to the empirical literature by providing context-specific data from a Nigerian service firm, demonstrating the practical benefits of adopting emerging technologies to improve operational efficiency, real-time monitoring, and service innovation. Additionally, the study highlighted the varying magnitude of impact across technologies, offering actionable insights for managers on prioritizing technology investments to optimize competitive positioning and strategic performance.

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