IJAAR PUBLISHING®

Research Journal of Management Practice | ISSN: 2782-7674
Vol. 6, Issue 2 (2026) | https://doi.org/10.46654/qve26x04

# STRATEGIC AI IMPLEMENTATION AND ADAPTABILITY OF MOBILE TELECOMMUNICATION COMPANIES IN SOUTH-SOUTH, NIGERIA

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## ABSTRACT

*The purpose of this study was to examine the relationship between strategic AI implementation and adaptability of mobile telecommunication companies in South-South, Nigeria. To address this aim, the study focused on two main objectives: first, to investigate the connection between strategic AI implementation and organizational response to change; and second, to evaluate how strategic AI implementation relates to strategic adjustment within these companies. The research was grounded in the Dynamic Capabilities Theory and the Technology Acceptance Model, providing a robust theoretical framework for understanding how AI integration impacts organizational adaptability. A cross-sectional survey design, complemented by a correlational research approach, was employed. The study population consisted of four mobile telecommunication companies operating in the region. Recognizing the organizational-level focus, three top managers from each firm were purposively selected, resulting in a total of twelve managerial respondents representing their respective organizations. Inferential statistical techniques, particularly bivariate analysis using Spearman's rank-order correlation, were utilized to test the hypotheses and assess the relationships between variables. The results indicated a very strong and positive correlation between strategic AI implementation and both organizational response to change and strategic adjustment. These findings underscore that the strategic adoption of AI technologies significantly enhances the adaptability of mobile telecommunication companies, as reflected in their improved ability to respond to environmental changes and execute timely strategic adjustments. In conclusion, the study establishes strategic AI implementation as a foundational driver of adaptability for mobile telecommunication companies in South-South, Nigeria. Consequently, it is recommended that these companies invest consistently in digital skills development, integrate AI initiatives into core strategic planning, and cultivate a culture of innovation at all organizational levels.*

***Keywords:*** Strategic AI Implementation, Organizational Adaptability, Response to Change, Strategic Adjustment.

## 1. INTRODUCTION

In today's highly volatile business environment, organizational adaptability has emerged as a cornerstone for sustained competitiveness and resilience, particularly in fast-evolving sectors such as telecommunications. Organizational adaptability refers to the capacity of firms to sense, respond to, and capitalize on environmental changes, thereby sustaining performance and competitive advantage (Boylan & Turner, 2017; Kodama, 2019). Recent studies emphasize that adaptability is not merely a function of reactive responses but is underpinned by leadership, organizational culture, continual learning, and proactive strategies (Akintunde-Adeyi et al., 2023; Okonta & Egbule, 2025). Parallel to the discourse on adaptability is the rising prominence of strategic AI implementation—the purposeful integration of artificial intelligence technologies into core business processes and decision-making frameworks. Globally, AI has transformed industries by enabling organizations to streamline operations, predict market trends, and enhance customer engagement (Ångström et al., 2023). In the telecommunications sector, AI's potential to automate network management, optimize resource allocation, and personalize services has made it a strategic imperative (Reim et al., 2020). For Nigerian telecom firms, the shift towards AI-driven strategies is not only a pathway to operational efficiency but also a means of responding to the growing complexity and unpredictability of the market environment (Akinlade et al., 2024).

The link between strategic AI implementation and organizational adaptability is increasingly recognized in both academic and practical spheres. Empirical research suggests that organizations leveraging AI are better equipped to anticipate and respond to external shocks, reconfigure their resources, and innovate at scale (Ångström et al., 2023; Muhammad et al., 2025). This is particularly salient in emerging markets like Nigeria, where infrastructural limitations and rapid technological change coexist. Studies by Bagshaw and Okoisama (2023) on South-South Nigeria's petroleum sector, as well as Nteogwuija and Wechie (2019) on telecommunication firms in Rivers State, highlight how digital strategies, including AI, drive continuous improvement and cultivate a culture of resilience and adaptability.

Despite the recognized benefits, challenges such as skills gaps, regulatory uncertainty, and limited infrastructure can impede the seamless adoption of AI within Nigerian telecommunications (Akinlade et al., 2024). Nonetheless, the growing body of evidence underscores that firms which strategically implement AI not only improve their adaptive capacity but also position themselves to thrive in the face of uncertainty and disruption. Given this context, a closer examination of the interplay between strategic AI implementation and adaptability in mobile telecommunication companies in South-South, Nigeria is both timely and essential. Such an investigation promises to advance theoretical understanding and offer actionable insights for industry leaders and policymakers seeking to harness digital transformation for sustainable growth. The purpose of this study was therefore, to examine the relationship between strategic AI implementation and adaptability of mobile telecommunication companies in South-South, Nigeria. With respect to this purpose, the following objectives were drawn for the study:

- To examine the relationship between strategic AI implementation and response to change of mobile telecommunication companies in South-South, Nigeria.
- To evaluate the relationship between strategic AI implementation and strategic adjustment of mobile telecommunication companies in South-South, Nigeria.

The conceptual framework showing the relationship between strategic AI implementation and organizational adaptability is displayed in Figure 1.

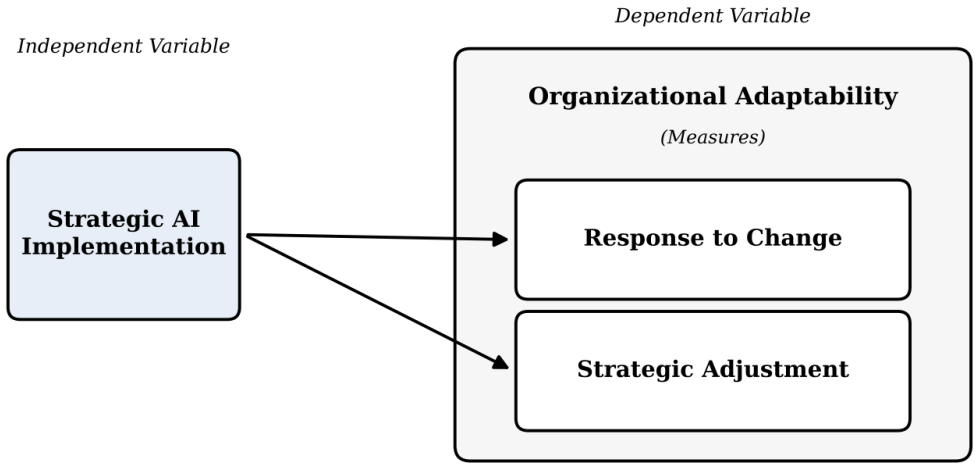



**Figure 1:** Conceptual Framework of Strategic AI Implementation and Organizational Adaptability.
***Source:*** *Desk Research, 2026.*

## 2. LITERATURE REVIEW

### *2.1 Dynamic Capabilities Theory*

The Dynamic Capabilities Theory (DCT) offers a robust framework for understanding how organizations adapt, innovate, and sustain competitive advantage in rapidly changing environments (Teece, 2018). The theory emphasizes a firm's ability to purposefully create, extend, or modify its resource base to address shifting market and technological conditions (Bleady et al., 2018). According to Teece (2018), dynamic capabilities are best viewed as "workable management systems theory," underscoring not only resource possession but also the processes by which resources are transformed and redeployed to exploit emerging opportunities. This perspective is vital for telecommunication firms seeking to implement AI solutions, as the successful integration of AI requires more than just technological investment, it demands organizational learning, agility, and the orchestration of both human and technological assets (Gremme & Wohlgemuth, 2017).

Recent studies highlight that dynamic capabilities facilitate the sensing of opportunities, seizing them through innovative strategies, and reconfiguring organizational resources in response to environmental changes (Akpan et al., 2022; Bleady et al., 2018). In the South-South Nigerian context, where the mobile telecom sector faces unique infrastructural and regulatory challenges, these capabilities become critical for sustainable AI adoption and adaptability (Bagshaw & Okoisama, 2023; Reim et al., 2020). For example, Akpan et al. (2022) empirically demonstrated that Nigerian firms with strong dynamic capabilities exhibit greater organizational resilience, which directly contributes to their capacity to absorb, implement, and scale AI-driven initiatives. Similarly, Bagshaw and Okoisama (2023) underscore the role of dynamic capability in fostering organizational adaptability in environments characterized by volatility and complexity, such as those experienced by telecom operators in South-South, Nigeria.

Furthermore, the practical application of DCT in AI implementation involves continuous environmental scanning, learning, and the restructuring of processes and resources to align with AI-driven strategic objectives (Gremme & Wohlgemuth, 2017; Wechie, 2023). Telecommunication companies must develop routines for integrating new AI technologies, train personnel to leverage these tools effectively, and remain responsive to feedback from

the competitive landscape. Dynamic Capabilities Theory provides a comprehensive lens through which to examine and guide the strategic implementation of AI and the adaptability of mobile telecommunication companies in South-South, Nigeria. Its emphasis on agility, resource reconfiguration, and learning is directly aligned with the prerequisites for successful AI integration and long-term competitiveness in this sector.

### *2.2 Technology Acceptance Model*

The Technology Acceptance Model (TAM) provides a robust theoretical foundation for understanding user acceptance of new technologies, a critical factor in the successful implementation of artificial intelligence (AI) within mobile telecommunication companies. Developed by Davis et al. (1989), TAM centers on two fundamental determinants: perceived usefulness and perceived ease of use. These dimensions directly shape users' attitudes and intentions regarding technology adoption, influencing whether new systems are ultimately integrated into everyday organizational practices. The ongoing evolution of TAM, as reviewed by Marangunić and Granić (2015), highlights the model's adaptability to emerging technologies, including AI. They note that as technologies become more sophisticated and context-specific, extended versions of TAM incorporate factors such as social influence, facilitating conditions, and user experience, which are particularly relevant in complex and dynamic environments like the Nigerian telecommunications sector.

Successful AI deployment in mobile telecom firms hinges not only on technological infrastructure but also on the willingness and readiness of employees and customers to engage with AI-driven systems (Marangunić & Granić, 2015). Masrom (2007) emphasizes that organizational strategies aimed at increasing perceived ease of use—such as targeted training, user-friendly interfaces, and ongoing technical support—can significantly enhance technology acceptance rates. Furthermore, ensuring that employees and customers recognize the tangible benefits of AI (i.e., perceived usefulness) is vital for fostering a culture of innovation and adaptability. This is especially salient in South-South, Nigeria, where digital literacy and infrastructural disparities may present unique challenges (Olatokun & Ojo, 2016). Olatokun and Ojo's (2016) investigation into mobile telecommunication services in Nigeria found that perceived service quality directly impacts user satisfaction and, by extension, technology acceptance. This suggests that AI applications designed to enhance service delivery, network reliability, or customer engagement must be perceived as both effective and accessible to facilitate widespread acceptance and adaptability.

Moreover, the adoption of AI can be further understood through the TAM lens by examining how external factors such as management support, organizational culture, and regulatory environment influence acceptance dynamics (Marangunić & Granić, 2015). For instance, leadership commitment to digital transformation can amplify perceived organizational support, which, in turn, reinforces positive attitudes toward AI initiatives. TAM offers a valuable framework for diagnosing and guiding the adoption of AI technologies in mobile telecommunication companies, particularly within the nuanced environment of South-South, Nigeria. By addressing both perceived usefulness and perceived ease of use, and by adapting organizational strategies to local contexts, telecom operators can enhance their adaptability and competitive advantage in the digital era.

### *2.3 The Concept of Strategic AI Implementation*

Strategic AI implementation is increasingly recognized as a central pillar for transforming organizational processes, driving innovation, and sustaining competitive advantage in today's volatile business landscape. The implementation of AI in organizational strategy is not merely a technological upgrade, but a multidimensional process that requires alignment with

business objectives, organizational culture, and adaptive capacities (Walter et al., 2021; Ångström et al., 2023). Walter et al. (2021) propose a strategic AI procedure model emphasizing the importance of a holistic, phased approach to AI integration. This begins with an assessment of organizational readiness, followed by the selection of technology tailored to strategic goals, comprehensive change management, and systematic evaluation of outcomes. Such a structured roadmap is crucial, particularly for industries like telecommunications, where rapid technological shifts are commonplace and misalignment can lead to costly failures.

A global survey by Ångström et al. (2023) underscores the need for a clear strategic vision, cross-functional collaboration, and strong leadership in AI implementation. Their findings reveal that many organizations struggle with internal silos and a lack of coherent strategy, which can hinder the realization of AI's transformative potential. Overcoming these barriers requires not only robust technological infrastructure but also investment in workforce development, stakeholder engagement, and continuous learning. Additionally, the Nigerian context introduces unique complexities related to environmental, infrastructural, and policy challenges. Akinlade et al. (2024) offer a framework specifically tailored for AI adoption in Nigerian organizations, highlighting the necessity of aligning AI initiatives with strategic decision-making processes and regulatory requirements. They argue that successful implementation is contingent on strategic fit, regulatory support, and the cultivation of digital skill sets among employees.

Complementarily, Busa et al. (2025) stress the importance of integrating AI into national policy frameworks, advocating for strategic guidance at the macro level to ensure consistency, sustainability, and scalability in implementation efforts. Their analysis points to the need for harmonized regulatory standards and public-private partnerships to accelerate digital transformation. Furthermore, Nair et al. (2024) identify barriers such as resistance to change, skills gaps, and unclear value propositions as persistent obstacles to effective AI implementation. They recommend tailored training programs, clear communication of benefits, and participatory approaches to change management as strategies to improve acceptance and success rates. Strategic AI implementation is a multifaceted process that demands organizational alignment, visionary leadership, workforce engagement, and supportive policy frameworks. For mobile telecommunication companies in South-South, Nigeria, prioritizing these strategic considerations is paramount to harnessing AI's potential for sustained adaptability and growth in a dynamic market environment.

### *2.4 Organizational Adaptability*

Organizational adaptability is increasingly recognized as a cornerstone of sustained organizational success, particularly in environments marked by volatility, uncertainty, and rapid technological change. Adaptability refers to an organization's capacity to anticipate, respond to, and capitalize on shifts in its internal and external environment (Boylan & Turner, 2017; Uhl-Bien & Arena, 2018). This capacity not only ensures survival but also enables organizations to thrive by turning challenges into opportunities for innovation and growth. Recent scholarship emphasizes that adaptability is driven by several interrelated factors, including leadership style, organizational culture, learning orientation, and the ability to manage complexity (Kodama, 2019; Deverell & Olsson, 2010). For example, Kodama (2019) demonstrates that holistic leadership—characterized by vision, flexibility, and a collaborative mindset—plays a crucial role in fostering innovative practices and adaptive responses. Similarly, Deverell and Olsson (2010) highlight that a supportive and open organizational culture can accelerate strategic shifts and facilitate more effective crisis management.

The Nigerian business context offers compelling illustrations of adaptability's importance. Bagshaw and Okoisama (2023), examining petroleum tank farms in South-South, Nigeria, find that organizational adaptability is significantly enhanced by continuous operations improvement and proactive environmental scanning. These practices help firms anticipate regulatory changes, adjust to market demands, and mitigate operational risks. Furthermore, Okonta and Egbule (2025) argue that adaptability is a critical determinant of competitive strategy among manufacturing firms in Nigeria. Their findings suggest that firms that invest in flexible structures and processes are better positioned to sustain performance and respond to industry disruptions. In the realm of higher education, Wokocha and Godwill (2025) show that a positive psychological climate within organizations fosters employee adaptability—a factor that ultimately supports institutional resilience and service quality.

The interplay between adaptability and organizational resilience is also explored by Akintunde-Adeyi et al. (2023), who report that resilience, underpinned by strong organizational culture and leadership, is vital for maintaining sustainable performance amid change. This aligns with the view that adaptability is not a static trait but a dynamic process, continuously shaped by an organization's context, resources, and learning capacity. Organizational adaptability is essential for navigating the complexities of modern markets, especially in regions like South-South Nigeria where environmental turbulence is pronounced. By fostering adaptive cultures, investing in leadership development, and promoting continuous learning, organizations can build the agility needed to survive and succeed in the face of relentless change.

### *2.5 Response to Change*

Organizational response to change is a complex, multifaceted phenomenon that encompasses both strategic adaptation and the behavioral reactions of employees and stakeholders. As organizations navigate increasingly turbulent environments marked by rapid technological advancements, regulatory shifts, and evolving market demands—their capacity to respond effectively to change is critical for sustained performance and competitive advantage (Aduku et al., 2021). A central theme in the literature is the interplay between organizational structures, leadership approaches, and employee perceptions in shaping the quality and effectiveness of change responses. For example, Baum and Singh (1995) emphasize that organizations facing intense competition often develop more agile routines and flexible processes, enabling them to adjust strategies swiftly and outperform less adaptable rivals. Their findings suggest that proactive and dynamic responses to industry changes are hallmarks of successful organizations.

Similarly, Ogunleye et al. (2021) highlight the importance of strategic agility for small and medium enterprises in Nigeria, arguing that firms that quickly sense and respond to changes in their environment are better positioned to exploit new opportunities and mitigate emerging threats. This view is echoed by Ashmos et al. (2000), who assert that organizational performance in complex environments hinges on the ability to manage and integrate change-related complexity through continuous learning and adaptation. Lewis (1994) explores the relationship between employee reactions, behavioral adjustments, and overall organizational outcomes, noting that resistance, ambivalence, or support for change are deeply influenced by communication, trust in leadership, and inclusion in the decision-making process. Effective change management, therefore, not only requires strategic clarity but also empathetic leadership and regular stakeholder engagement to minimize resistance and maximize commitment (Lewis, 1994; Gabriel et al., 2013).

Further, Gabriel et al. (2013) provide a context-specific perspective from Nigerian business organizations, revealing that organizations that prioritize ongoing training, stakeholder consultation, and transparent communication foster more resilient and positive responses to change. Their research underscores the critical role of organizational culture in either facilitating or impeding successful adaptation. Organizational response to change is shaped by a confluence of strategic, structural, and human factors. Proactive leadership, flexible systems, open communication, and a culture of continuous learning all contribute to successful change outcomes, particularly in dynamic environments such as those found in Nigeria's evolving business landscape.

### *2.6 Strategic Adjustment*

Strategic adjustment is the deliberate and often ongoing process through which organizations modify their strategies, structures, or operational procedures to align with dynamic internal and external conditions. In today's rapidly evolving business environment—characterized by technological advancements, regulatory changes, and shifting consumer preferences—strategic adjustment has become an essential organizational competency for sustaining competitiveness and ensuring long-term survival (Anđelić et al., 2017). Gorev and Kozlovski (2014) argue that the ability to swiftly adjust corporate strategies in the face of "strategic unexpectedness" is a distinguishing feature of resilient firms. This approach involves not just reactive changes, but proactive scanning of the environment, scenario planning, and the development of flexible business models that can absorb shocks and exploit emerging opportunities. Olukoshi (1996) discusses how manufacturers in Kano, Nigeria, have historically navigated economic crises and structural adjustments by evolving coping strategies that blend innovation, resource reallocation, and stakeholder engagement. Similarly, Ude (2025) highlights that pharmaceutical manufacturing firms in South-South, Nigeria, have leveraged their technological capabilities and competitive intelligence to execute timely strategic adjustments, thereby enhancing their market positioning and operational resilience.

Teplensky et al. (1993) investigate how manufacturers adjust the scope and timing of their strategies when entering emerging markets, noting that successful entrants typically exhibit a high degree of flexibility and continuous learning. This adaptability is crucial for organizations operating in unpredictable environments, as it enables them to recalibrate plans, reallocate resources, and revise goals as circumstances evolve. Ogunleye et al. (2021) emphasize the critical link between strategic agility—the organization's capacity to sense, seize, and transform opportunities—and improved performance among small and medium enterprises in Nigeria. Their findings suggest that organizations committed to ongoing strategic adjustment are better equipped to thrive amidst competition and change. Strategic adjustment is not a one-time event but a sustained organizational practice. It entails a proactive mindset, continuous environmental scanning, and the cultivation of flexible business models. By embracing strategic adjustment, organizations can better navigate uncertainty, capitalize on new opportunities, and maintain a trajectory of growth and resilience.

## 3. EMPIRICAL REVIEW

An empirical review of existing literature reveals a growing body of research addressing the intersection of strategic AI implementation and organizational adaptability, particularly within sectors undergoing rapid technological transformation. For mobile telecommunication companies in South-South, Nigeria, these studies provide valuable insights into both the

enablers and challenges of digital adaptation and innovation. Recent work by Ångström et al. (2023) offers a global perspective, noting that successful AI implementation often depends on strategic alignment, leadership commitment, and employee engagement. Their survey-based study found that organizations capable of integrating AI into their strategic objectives while maintaining adaptability in the face of environmental uncertainty tend to outperform less agile competitors. This finding underscores the importance of both top-down vision and cross-functional collaboration in fostering successful digital transformation.

In the Nigerian context, Bagshaw and Okoisama (2023) provide empirical evidence that adaptability is critically linked to continuous operations improvement and proactive management strategies within petroleum tank farms in South-South, Nigeria. While not telecommunication-focused, their findings are transferable, highlighting the role of organizational learning, flexible processes, and robust environmental scanning in enabling firms to respond effectively to technological and market changes. Akinlade et al. (2024) developed a practical framework for AI adoption and strategic decision efficiency in global strategy teams, with implications for Nigerian organizations. Their mixed-methods research emphasizes the necessity of aligning AI initiatives with broader strategic goals and underscores the value of regulatory support, digital skills development, and clear communication in overcoming barriers to AI integration.

Focusing specifically on the telecommunication sector, Nteogwuija and Wechie (2019) explored talent retention and employee resilience in companies operating in Rivers State, a major hub in South-South Nigeria. Their findings stress the importance of organizational culture and employee adaptability for sustaining competitive advantage, especially in rapidly digitizing sectors. Additionally, Muhammad et al. (2025) identified strategic enablers of sustainable AI-driven transformation in Nigerian public services using advanced modeling techniques. Their results point to the critical role of leadership, infrastructure readiness, and stakeholder collaboration in supporting sustained adaptation and digital innovation. Synthesizing these studies, it becomes evident that successful strategic AI implementation in the South-South Nigerian telecommunications sector is predicated on several key factors: strategic vision and alignment, investment in human capital, adaptive organizational cultures, and supportive regulatory environments. Empirical evidence strongly suggests that companies which prioritize these elements are better positioned to navigate technological disruption and maintain operational resilience. Based on the foregoing, the study hypothesized thus:

**$H_{01}$** There is no significant relationship between strategic AI implementation and response to change in mobile telecommunication companies in South-South, Nigeria.

**$H_{02}$** There is no significant relationship between strategic AI implementation and strategic adjustment in mobile telecommunication companies in South-South, Nigeria.

## 4. METHODOLOGY

For this study, a cross-sectional survey design was employed alongside a correlational research design. These approaches, which fall under non-experimental or quasi-experimental methodologies, involve gathering data from a specified population or sample at a single point in time. The research specifically targeted mobile telecommunication companies operating as Mobile Network Operators (MNOs) in South-South, Nigeria. At the time of data collection, only four fully licensed Global System for Mobile Communications (GSM) operators were operational in the region (NCC, 2026). As such, the study population comprised these four companies. Given the macro-level (organizational) focus of the research, three top managers

from each company were purposively selected to represent their organizations, resulting in a total of twelve managers as the study's population elements. Primary data were collected exclusively through a structured questionnaire. To ensure the reliability of the research instrument, Cronbach's alpha was used for evaluation. For data analysis, inferential statistical techniques were applied to test the hypotheses and explore relationships between variables. Specifically, bivariate analysis was conducted using Spearman's rank-order correlation, a non-parametric method suitable for ordinal data or for data not meeting the assumptions of normality.

## 5. DATA ANALYSIS AND RESULTS

**Table 1: Correlation Matrix for Strategic AI Implementation and Measures of Organizational Adaptability**

| | | | **Strategic AI Implementation** | **Response to Change** | **Strategic Adjustment** |
|---|---|---|---|---|---|
| Spearman's rho | Strategic AI Implementation | Correlation Coefficient | 1.000 | .853** | .720** |
| | | Sig. (2-tailed) | . | .000 | .000 |
| | | N | 12 | 12 | 12 |
| | Response to Change | Correlation Coefficient | .853** | 1.000 | .861** |
| | | Sig. (2-tailed) | .000 | . | .000 |
| | | N | 12 | 12 | 12 |
| | Strategic Adjustment | Correlation Coefficient | .720** | .861** | 1.000 |
| | | Sig. (2-tailed) | .000 | .000 | . |
| | | N | 12 | 12 | 12 |

***Source:*** *SPSS Version 25.0 Output (2026)*

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

The findings presented in Table 1 indicate a very strong, positive correlation between strategic AI implementation and response to change of mobile telecommunication companies in South-South, Nigeria. This is reflected in a Spearman's correlation coefficient of $\rho = 0.853$ and a highly significant p-value of 0.000 ($p < 0.05$). The statistical significance of this result demonstrates that the observed relationship is unlikely to have occurred by chance. Accordingly, the null hypothesis which states that there is no significant relationship between strategic AI implementation and response to change in these companies is rejected.

In a similar vein, the results also demonstrate a strong, positive correlation between strategic AI implementation and strategic adjustment within the same set of companies, with a Spearman's correlation coefficient of $\rho = 0.720$ and a p-value of 0.000 ($p < 0.05$). This statistically significant result further confirms that the relationship between strategic AI implementation and strategic adjustment is robust. As such, the null hypothesis asserting no significant relationship between these variables is likewise rejected. Overall, these results underscore the pivotal role that strategic AI implementation plays in enhancing both the adaptability and strategic responsiveness of mobile telecommunication firms in the region.

## 6. DISCUSSION OF FINDINGS

The results of this study reveal that strategic AI implementation is not only positively but also very strongly correlated with both the response to change and strategic adjustment of mobile telecommunication companies in South-South, Nigeria. The exceptionally high Spearman's correlation coefficient ($\rho = 0.853$) between strategic AI implementation and response to change, accompanied by a statistically significant p-value ($p = 0.000$), indicates that the adoption of AI-driven strategies is a critical enabler for organizational adaptability in this industry. Similarly, the robust correlation observed between strategic AI implementation and strategic adjustment ($\rho = 0.720$, $p = 0.000$) highlights the integral role of AI in fostering dynamic strategic realignment within these firms. These findings are strongly aligned with the empirical literature reviewed. For example, Ångström et al. (2023) emphasized, on a global scale, that successful AI integration is closely tied to organizational agility and a capacity for rapid adaptation—traits that directly reflect the "response to change" construct explored in this study. The present results support their conclusion that organizations with clear AI strategies and leadership commitment achieve greater responsiveness in dynamic environments.

Bagshaw and Okoisama (2023) similarly found that adaptability in organizations is enhanced by continuous improvement and proactive management, both of which are facilitated by advanced digital strategies such as AI implementation. The observed strong relationship between AI and strategic adjustment in this study provides empirical support for their argument that technology adoption underpins flexible and responsive business practices. Further, Akinlade et al. (2024) highlighted the necessity of aligning AI initiatives with strategic objectives to maximize organizational impact—a perspective echoed in the present study's demonstration that AI implementation is significantly associated with strategic adjustment. The results also resonate with the work of Nteogwuija and Wechie (2019), who identified organizational culture and employee adaptability as key factors in sustaining competitive advantage among telecommunication firms. The current findings extend this by showing that strategic AI adoption is a lever through which such adaptability and responsiveness can be institutionalized. Taken together, the empirical evidence and current results converge on the conclusion that strategic AI implementation is a foundational driver of adaptability, change readiness, and strategic agility for mobile telecommunication companies in South-South, Nigeria. This underscores the necessity for these firms to continue investing in AI capabilities, not only as a technological upgrade but as a comprehensive organizational strategy for thriving in an ever-evolving market landscape.

## 7. CONCLUSION

This study has explored the relationship between strategic AI implementation and organizational adaptability among mobile telecommunication companies in South-South, Nigeria. The findings reveal that strategically adopting AI technologies is strongly associated with enhanced adaptability, manifested through improved responsiveness to change and robust strategic adjustment. These results underscore the pivotal role that AI plays not merely as a technological tool, but as a catalyst for organizational transformation, resilience, and sustained competitive advantage in an increasingly dynamic and uncertain market environment. The study concludes that strategic AI implementation is a foundational driver of adaptability for mobile telecommunication companies in South-South, Nigeria. By embracing AI not only as a technology but as an enabler of strategic flexibility and innovation, these firms can enhance their resilience and thrive in the evolving digital economy.

## 8. RECOMMENDATIONS

- Mobile telecommunication companies should strengthen strategic AI implementation and adaptability by investing in continuous digital skills development, embedding AI initiatives into core strategic planning, and fostering a culture of innovation across all organizational levels.
- AI adoption should be aligned with long-term business objectives and maintain flexibility to adapt to environmental changes, while also prioritizing collaboration with regulatory bodies and industry stakeholders to overcome infrastructural and policy barriers.
- Organizational adaptability should be regularly evaluated through audits and feedback mechanisms, combined with strategic partnerships and data-driven insights as this will further enhance resilience, competitiveness, and long-term success in the rapidly evolving digital landscape.

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