

**DIGITAL INCLUSION AS A DRIVER OF
COMMUNITY DEVELOPMENT IN
ABAJI AREA COUNCIL, ABUJA**

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Plateau State University Journal of
Communication Studies (PLASUJOCS)
2026, Vol. 3(1)

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Communication, Plateau State University
Bokkos, Nigeria.

<http://journals.plasu.edu.ng/index.php/pjcs>

Abstract

This study examined the role of Digital Inclusion as a driver of community development in Abaji Area Council, with emphasis on education, entrepreneurship, governance, and social participation. It was motivated by the increasing relevance of digital technologies in development processes and persistent inequalities in access, skills, and usage within semi-urban contexts. The study addressed the gap between the availability of digital tools and their limited transformative impact on community development in Abaji, where Digital Inclusion is often reduced to access without adequate attention to usage and outcomes. The study was anchored on the Technology Acceptance Model, which explains technology adoption through perceived usefulness and perceived ease of use. A mixed-methods research design was adopted, combining structured questionnaires and in-depth interviews to capture both quantitative and experiential dimensions of Digital Inclusion. The population comprised approximately 127,900 residents of Abaji Area Council, from which a sample size of 400 respondents was determined using Taro Yamane's formula. However, 381 respondents successfully completed and returned the questionnaires, forming the final quantitative sample. Data were analysed using descriptive statistics and thematic analysis. Findings revealed that Digital Inclusion supports communication, entrepreneurship, and limited governance participation, though its impact remains uneven. In education, improvements were moderate, reflecting partial integration of digital technologies. In entrepreneurship, digital tools significantly enhanced income activities, but benefits were uneven due to differences in skills and access. Governance participation remained moderate, indicating early-stage e-governance adoption. The study concludes that Digital Inclusion in Abaji Area Council is functional but not yet fully transformative. Despite increasing exposure to digital technologies, developmental outcomes are constrained by infrastructural deficits, digital literacy gaps, and economic limitations. It recommends improved digital infrastructure, expanded digital literacy programmes, stronger institutional ICT integration, and targeted support for low-income users to enhance inclusive community development outcomes.

Keywords: *Community Development, Digital Inclusion, Education, Entrepreneurship, and Governance*

Introduction

In the 21st century, digital technologies play a central role in shaping how individuals access information, participate in economic activities, and engage in civic life. As noted by the International Telecommunication Union (2023), access to digital tools is now a key factor in determining social inclusion and economic opportunity. In Nigeria, the rapid spread of mobile phones and internet-enabled devices creates new opportunities for communication, learning, and entrepreneurship. However, this growth does not lead to equal participation across all regions, particularly in semi-urban areas such as Abaji Area Council in the Federal Capital Territory.

Despite increasing access, Digital Inclusion does not automatically result in meaningful development. Olaniran and Goolagong (2022), observe that Digital Inclusion in Nigeria remains uneven due to infrastructural challenges, high costs, and differences in digital skills. In areas like Abaji, where electricity supply is inconsistent and network coverage is weak, residents often struggle to fully utilise digital technologies.

Digital Inclusion is increasingly recognised as a resource that supports livelihoods and strengthens community interaction. Tools such as smartphones and point-of-sale devices are used not only for communication but also for

business, education, and engagement with public institutions. Adeniran (2023), argues that the integration of digital technologies into everyday life in Nigeria enhances both individual capacity and community development. This is particularly evident in Abaji, where many residents rely on informal economic activities and adapt digital tools to meet their needs.

However, the benefits of digital technologies are limited by gaps in digital skills. Nwankwo and Eze (2021), note that digital literacy is often acquired informally, restricting users to basic functions and limiting their ability to apply technology for productive purposes. This challenge is common in semi-urban areas, where individuals may own digital devices but lack the skills to use them effectively.

At the community level, Digital Inclusion has the potential to support development in education, entrepreneurship, governance, and social participation. Digital tools can improve learning, expand business opportunities, and enhance communication between citizens and local authorities. However, these benefits depend on the presence of supportive infrastructure and effective institutional systems. Yusuf and Salisu (2024), argue that weak policy implementation and poor institutional integration limit the impact of

digital technologies in Nigeria, a situation that is also evident in Abaji.

These challenges highlight the problem of uneven Digital Inclusion in Abaji Area Council. While digital tools are increasingly used, their developmental impact remains limited by infrastructure, skills, and institutional constraints. This study therefore examines how Digital Inclusion contributes to community development in Abaji, focusing on education, entrepreneurship, governance, and social participation.

Conceptual Review

Digital Inclusion and Digital Divide

Digital Inclusion goes beyond simply having access to digital devices; it involves the ability of individuals and communities to use technology in ways that improve their daily lives. Abubakar (2025), defines Digital Inclusion as the process of ensuring that people not only have access to digital technologies but also possess the skills and opportunities needed to use them effectively for socio-economic advancement. In Abaji Area Council, this idea is important because owning a mobile phone alone does not mean that a person is digitally included. Rather, Digital Inclusion reflects the ability of residents to apply digital tools in education, business, and civic activities. This understanding connects with the first level of the digital divide, which focuses on access. In practical terms, access in Abaji includes the

availability of devices such as smartphones, laptops, projectors in schools, and point-of-sale machines in local markets, all of which influence the starting point of digital participation.

However, having access to digital tools does not always mean that people can use them effectively. Ogbodo et al. (2023), explain that many individuals lack the digital skills needed to turn access into meaningful use, and they identify this gap as a major challenge to inclusive development. In semi-urban communities like Abaji, this problem is clear in the difference between owning a smartphone and being able to use it for learning, online transactions, or accessing government services. Without the necessary skills, users often remain limited to basic functions such as calls and messaging. This reduces the ability of digital technologies to support real development and limits the overall impact of digital inclusion. Furthermore, the lack of structured training opportunities makes it difficult for many residents to move beyond basic usage.

The outcomes of digital engagement also vary widely among users, even when access and basic skills are present. Mishi and Anakpo (2022), argue that the benefits of digital technologies are not evenly distributed because of existing social and economic inequalities. In Abaji, this can be seen in how some residents use digital tools to improve

their businesses or education, while others continue to use them only for simple communication. However, this difference in outcomes shows that access and skills alone are not enough to guarantee development benefits. Furthermore, it highlights the need to address deeper structural challenges that influence how technology is used. These differences show that Digital Inclusion is not a single-stage process but a layered one that involves access, skills, and the ability to achieve meaningful results. Understanding this helps to explain why Digital Inclusion must be approached in a broader way that considers not just the availability of technology, but also how it is used and the outcomes it produces within the community.

Digital Technologies

Digital technologies are now part of everyday life, shaping how people work, communicate, and solve problems in their communities. Adewale (2022), defines digital technologies as electronic tools and systems such as smartphones, computers, internet platforms, and diagnostic devices that support the creation, storage, processing, and exchange of information in digital form. These technologies are distinct from analogue technologies, which operate through manual or non-digital processes, such as chalkboards, paper records, handwritten transactions, and mechanical tools that do not rely on data processing systems. In semi-urban areas like

Abaji Area Council, digital technologies are not abstract concepts but practical tools embedded in daily activities. When viewed in terms of social and economic value, they become important resources that individuals use to generate income, maintain relationships, and participate in community life. This shifts the perception of technology from a luxury to a necessity for livelihood and local development.

Beyond basic usage, digital technologies play a critical role in economic activities. Okeke and Nnamdi (2023), explain that digital tools function as forms of economic capital, particularly among small-scale and informal businesses in Nigeria. In Abaji, this is evident in the use of POS systems for transactions, diagnostic machines by mechanics, and digital measuring tools by artisans. Unlike analogue alternatives, which are often slower and less precise, these digital tools improve efficiency, accuracy, and service delivery. As a result, business owners are able to increase productivity, attract more customers, and enhance their income. Additionally, the use of such technologies fosters trust and credibility in transactions, which is essential for sustaining local enterprises.

The social value of digital technologies further highlights their importance in community development. Ibrahim and Sadiq (2024), note that platforms such as WhatsApp and other social media channels enable communication,

coordination, and relationship-building within communities. In Abaji, these tools are used to share information, organise activities, and maintain social connections. However, the benefits derived from digital technologies are uneven. Individuals with existing skills are better positioned to utilise these tools effectively, while others remain limited to basic functions. In contrast to analogue systems, which require less technical skill but offer limited scalability, digital technologies have greater potential to expand opportunities but only when users possess the necessary competence. This demonstrates that digital technologies are most impactful when they complement and enhance existing human capacity rather than replace it.

ICT-Enabled Community Development

Community development refers to the process through which individuals and groups within a community improve their social, economic, and institutional conditions by collectively addressing shared challenges and enhancing their overall quality of life. It involves strengthening local capacities, improving access to essential services, and promoting active participation in decision-making processes. In this context, development is not only about economic growth but also about social inclusion, empowerment, and the ability of community members to influence outcomes that affect their lives.

ICT-enabled community development builds on this foundation by integrating digital technologies into key sectors in ways that enhance human capacity, improve service delivery, and deepen participation. The real value of ICT lies in its ability to connect otherwise fragmented domains such as education, enterprise, governance, and social life, as emphasised by Ogunleye (2023), who highlights its cross-sectoral transformative potential. Within Abaji Area Council, this interconnectedness is visible in the uneven interaction between personal and institutional uses of technology. For example, while teachers often rely on mobile phones for lesson preparation and communication, many schools lack structured digital infrastructure such as computers, projectors, or internet-enabled learning systems. This creates a situation where personal initiative compensates for weak institutional support, thereby limiting the broader impact of ICT on educational development.

In the economic sphere, digital inclusion is gradually reshaping entrepreneurial activity and market access, particularly for small-scale traders. Balogun and Kareem (2022), show that digital platforms enable producers and retailers to bypass traditional intermediaries and connect directly with wider markets. In Abaji, this is reflected in the growing use of mobile phones and social media by traders to reach customers in urban centres such as Abuja. While this expands economic

opportunities and reduces dependence on middlemen, the benefits remain uneven due to differences in digital skills and financial capacity, which continue to reinforce existing inequalities.

From a governance perspective, ICT adoption within many Nigerian local government systems remains largely limited to administrative functions. Suleiman and Abdullahi (2024), observe that this restricts the potential of digital technologies to improve transparency, accountability, and citizen engagement. A similar pattern is evident in Abaji, where digital tools are primarily used for record-keeping and internal communication rather than interactive governance. This limits opportunities for citizens to engage meaningfully in governance processes, thereby weakening participatory development at the community level.

Technological Mediation in Resource-Constrained Environments

Technological mediation in resource-constrained environments refers to the ways in which digital practices are adapted to function within limitations such as unreliable electricity, weak connectivity, and inadequate infrastructure. These constraints fundamentally shape how technologies are accessed and utilised in many Nigerian communities. Okon and Ibrahim (2022), emphasise that infrastructural deficits significantly condition digital engagement,

arguing that “patterns of technology use in developing contexts are largely determined by the availability and stability of supporting infrastructure.” In Abaji Area Council, this interaction between digital technologies and infrastructural limitations produces a persistent tension between aspiration and reality.

While digital tools are expected to enhance efficiency and connectivity, their use is frequently disrupted by what can be described as a power-connectivity barrier, where unstable electricity supply and inconsistent network coverage restrict continuous engagement. This situation reflects a broader development paradox in which the “digital driver” of progress is constrained by an “analog brake.” As Okon and Ibrahim (2022), further note, “the benefits of digital innovation are often undermined by persistent analogue constraints such as power failure and limited network reach.” In practical terms, this limits the extent to which residents can rely on technology for education, business activities, and communication, thereby reinforcing uneven patterns of digital inclusion in the community.

Community responses to these constraints often take the form of adaptive and innovative practices. Lawrence and Yusuf (2023), highlight that in low-resource settings, individuals tend to rely on frugal innovation, using simplified, cost-effective, and low-data

technologies to achieve practical goals. Within Abaji, this is evident in the widespread use of offline applications, basic mobile phone functions, and shared digital access points to sustain everyday activities. Rather than depending exclusively on high-speed internet or advanced digital systems, residents creatively repurpose available tools to meet local needs across informal business operations, learning spaces, and community communication networks. These adaptive practices suggest that digital engagement in such contexts is not absent but reconfigured through necessity, reflecting a form of technological resilience shaped by local realities.

At the institutional level, technological mediation is further complicated by the presence of underutilised or abandoned ICT infrastructure. Usman and Bello (2024), draw attention to how weak maintenance cultures, poor policy continuity, and limited community involvement contribute to the deterioration of digital facilities across many Nigerian communities. In Abaji, the existence of neglected ICT centres and unused equipment reinforces public scepticism about government-led digital initiatives. This “abandoned facilities” condition not only represents inefficiency in resource allocation but also undermines trust in the broader digital development agenda. Consequently, technological mediation in such environments is influenced not only by physical and

infrastructural limitations but also by institutional credibility, which shapes how communities perceive and engage with digital technologies.

Digital inclusion and participatory governance are closely linked to these broader structural conditions. Evidence from Adeleke (2022), shows that ICTs significantly enhance civic engagement and local decision-making processes in Nigerian communities, particularly where digital literacy and infrastructure are relatively strong. However, the study also reveals persistent inequalities driven by gender disparities, socio-economic exclusion, and infrastructural imbalance, which continue to limit equitable participation. Although the study provides valuable empirical insight, its emphasis on urban and peri-urban settings leaves semi-urban realities underexplored, particularly in contexts like Abaji Area Council.

Further evidence from Onah and Eze (2022), reinforces the importance of community-level ICT infrastructure in shaping social inclusion and innovation outcomes. Their study demonstrates that access to ICT centres enhances civic participation and entrepreneurial activity, but sustainability challenges such as weak funding, poor maintenance, and limited technical expertise undermine long-term impact. While insightful, the study does not sufficiently examine how these institutional challenges translate into

everyday patterns of digital use in semi-urban communities.

A broader perspective is provided by UNDP (2022), which highlights the role of digital technologies in improving governance, education, and economic inclusion globally, while also identifying persistent inequalities driven by infrastructural deficits and limited digital literacy. Similarly, Adewumi and Bello (2022), show that digital skills significantly influence entrepreneurial success, particularly among youth, but note that barriers such as high costs and limited training restrict broader participation.

Despite these contributions, clear gaps remain in the literature. First, existing studies largely examine digital inclusion from isolated perspectives focusing separately on infrastructure, literacy, or access without providing a holistic analysis of how these factors interact in shaping community development. Second, there is limited empirical research specifically addressing semi-urban contexts like Abaji, where conditions differ significantly from both urban and rural settings. Third, insufficient attention has been given to how adaptive practices and infrastructural constraints translate into measurable development outcomes in education, entrepreneurship, and governance. The relationship between institutional factors, such as abandoned ICT infrastructure, and community trust or digital engagement

remains underexplored. This study addresses these gaps by providing a comprehensive, context-specific assessment of digital inclusion and its effects on community development in Kuje and Abaji Area Councils.

Theoretical Framework

Technology Acceptance Model

The Technology Acceptance Model was developed by Fred Davis in 1986 and formally introduced in his seminal 1989 work as a theoretical framework for explaining how individuals come to accept and use new technologies. Davis (1989), grounded the model in behavioural psychology, particularly the Theory of Reasoned Action, to explain that user acceptance of technology is primarily determined by two key perceptions: perceived usefulness and perceived ease of use. Perceived usefulness refers to the extent to which an individual believes that using a particular technology will enhance their performance or daily activities, while perceived ease of use reflects the degree to which the technology is considered free from effort in its application. Over time, the theory has become one of the most widely applied models in information systems research due to its simplicity and explanatory strength in predicting technology adoption behaviour across different contexts.

For this study, the theory provides a suitable theoretical anchor because it offers a clear lens through which Digital Inclusion in Abaji Area

Council can be examined at the level of individual perception and behavioural engagement. In a context where access to digital tools does not automatically translate into meaningful usage, the theory helps to explain why some residents actively adopt and integrate ICTs into their livelihoods while others remain marginal users despite having access. The model is particularly relevant to understanding variations in digital engagement across education, entrepreneurship, governance, and social participation, as it highlights how subjective judgments about usefulness and usability shape actual technology uptake.

More importantly, the theory allows this study to move beyond infrastructural explanations of digital exclusion and focus on the human and perceptual dimensions that influence adoption. In Abaji, where infrastructural constraints coexist with varying levels of digital literacy, the model helps to explain why identical technologies produce different outcomes among users. Its emphasis on behavioural intention also aligns with the study's focus on how Digital Inclusion translates into real participation in community development processes.

Diffusion of Innovation Theory

The Diffusion of Innovation Theory developed by Everett Rogers provides a strong theoretical foundation for this study, as it explains how, why, and at what rate new ideas and technologies spread within a social system

(Rogers, 2003). The theory conceptualises innovation as a process that is communicated through specific channels over time among members of a social structure. Rogers (2003), further explains that adoption is not uniform, as individuals differ in their readiness and exposure to new technologies, leading to adopter categories such as innovators, early adopters, early majority, late majority, and laggards. These categories reflect variations in awareness, access, perception, and willingness to engage with innovation.

In relation to this study, digital inclusion in Abaji Area Council clearly reflects this uneven pattern of adoption. The variations observed across sectors such as education, entrepreneurship, and governance indicate that while some residents derive significant benefits from digital technologies, others experience minimal or no impact. This aligns with Rogers' (2003), assertion that adoption is a gradual and socially influenced process rather than an immediate or uniform experience. Individuals reporting "very much" or "very significant" improvements can be interpreted as early adopters who actively engage with digital technologies, whereas those indicating "slightly" or "not at all" represent late adopters or laggards, often constrained by limited skills, access, or exposure (Rogers, 2003; Greenhalgh et al., 2004).

The theory also helps explain broader patterns of community development by demonstrating that the spread of digital technologies is influenced not only by availability but also by communication processes, social networks, and individual readiness (Rogers, 2003; Straub, 2009). In this context, differences in digital usage across education, business, and governance sectors are not random but follow identifiable diffusion patterns within the community. This makes the theory particularly useful for interpreting why digital inclusion has not yet produced uniform development outcomes across all sectors in Abaji Area Council.

Methodology

The mixed-methods design adopted in this study incorporates a combination of both quantitative and qualitative research methods to achieve a comprehensive analysis of digital inclusion in Abaji Area Council. On the quantitative side, the primary method used is survey research, implemented through the use of structured questionnaires. This method enables the collection of standardized, numerical data on key variables such as access to digital devices, affordability, usage patterns, and levels of digital literacy. The quantitative approach is further supported by the use of descriptive statistical analysis, which helps to summarise and interpret the data in terms of frequencies and percentages. In addition, sampling techniques, specifically stratified

sampling and the application of the Taro Yamane formula, are employed to ensure representativeness and determine an appropriate sample size.

On the qualitative side, the study utilises the interview method to gather in-depth insights into participants' experiences and perceptions of digital inclusion. This method allows for a more detailed exploration of how digital technologies affect areas such as education, business, governance, and social interaction. The qualitative data generated through interviews are analysed using thematic analysis, which involves identifying recurring patterns and themes within participants' responses to provide meaningful interpretations.

Data Presentation and Analysis

This segment presents and analyses the data collected to understand the level of Digital Inclusion and its impact on community development in Abaji Area Council. The study adopted a mixed-methods research design, combining both quantitative and qualitative approaches to generate a more comprehensive understanding of the subject under investigation. Copies of a structured questionnaire were administered to 400 respondents across Abaji Area Council, however, 381 were successfully retrieved and found valid for analysis, while 19 were either incomplete or invalid. The questionnaire captured key variables such as ownership and

access to digital devices, frequency and purpose of usage, level of digital skills, participation in community activities, and challenges affecting effective use of Digital Technologies.

Table 1: How has access to digital tools improved education?

Options	Frequency	Percentage
Very much	92	24.15%
Somewhat	128	33.60%
Slightly	101	26.51%
Not at all	60	15.74%
Total	381	100%

The Table show that the impact of digital tools on education in Abaji Area Council is largely moderate rather than transformative. The most significant result is that the highest proportion of respondents (33.60%) reported that digital tools have improved education “somewhat.” This suggests that while digital technologies are present, their contribution is limited and not yet fully optimized.

Another important observation is the combined weight of the “slightly” (26.51%) and “very much” (24.15%) responses. While a reasonable number of respondents acknowledge noticeable benefits, the fact that “slightly” ranks higher than “very much” reinforces the idea that strong positive impact is not widespread. Instead, improvements

appear to be incremental and uneven across users.

In addition, the presence of 15.74% of respondents indicating “not at all” is significant. This minority reflects a segment of the population that has not experienced any educational benefit from digital tools, pointing to issues of exclusion or barriers to effective use. The most critical takeaway is that digital inclusion in education is partial and inconsistent. The dominance of moderate and low-impact responses indicates that digital tools have not yet achieved deep integration into the educational system. This suggests underlying challenges such as inadequate infrastructure, limited access, and gaps in digital literacy, which continue to constrain the

full educational benefits of digital technologies.

Table 2: How has access supported entrepreneurship or income activities?

Options	Frequency	Percentage
Very significantly	79	20.73%
Significantly	121	31.76%
Moderately	111	29.13%
Not at all	70	18.37%
Total	381	100.00%

The finding show that digital inclusion has a clearly positive influence on economic activities, particularly entrepreneurship and income generation. The most important insight is the dominance of strong-impact responses, showing that many respondents experience meaningful economic benefits from access to digital tools. Another significant aspect is the clustering of responses around moderate to high levels of impact, which indicates that digital technologies are not just present but are actively supporting business activities such as communication, transactions, and market

access. This suggests that digital inclusion is already functioning as an emerging driver of local economic development.

However, the findings also reveal an important gap: the benefits are not evenly distributed across the population. A noticeable segment of respondents does not experience any economic gains, highlighting issues of exclusion. This disparity points to underlying constraints such as limited digital skills, cost of devices, and unreliable internet connectivity, which affect how effectively individuals can leverage digital tools.

Table 3: How has Digital Inclusion enhanced participation in local governance?

Options	Frequency	Percentage
Very highly	71	18.64%
Highly	119	31.23%
Moderately	131	34.38%
Not at all	60	15.75%
Total	381	100%

The most important insight from Table 3 is that digital inclusion is beginning to influence civic participation, but its impact remains moderate rather than fully transformative. The dominance of responses indicating a medium level of impact suggests that engagement with governance through digital platforms is still developing and not yet deeply embedded in everyday civic life. Another key aspect is the presence of a substantial group experiencing strong improvements in participation, showing that digital tools are enabling some citizens to engage more actively with governance processes. This reflects the growing relevance of digital platforms in facilitating communication with authorities and increasing awareness of civic issues.

However, a critical finding is the uneven nature of this impact. Not all respondents benefit equally, indicating that access to digital tools and the ability to use them effectively vary across the population. This points to

persistent barriers such as limited awareness of digital governance opportunities, weak institutional systems, and unequal access to technology.

Discussion of Findings

The findings from Abaji Area Council indicate that Digital Inclusion is producing gradual but uneven outcomes across education, entrepreneurship, and governance participation. In education, the majority of respondents reported that digital tools have improved learning to a “somewhat” extent, followed by those indicating “slightly” and “very much,” while a smaller proportion reported no improvement. This pattern suggests that although digital technologies are present within the educational space, their utilisation remains inconsistent and not fully integrated into teaching and learning processes. The implication is that access alone is not translating into strong educational transformation, largely due to weak

institutional embedding, uneven digital literacy, and limited infrastructural support. This aligns with Ibrahim and Musa (2023), who emphasise that in semi-urban Nigerian contexts, digital education yields partial gains when institutional support and pedagogical integration are weak.

In entrepreneurship, the findings show a relatively stronger impact, with most respondents indicating that digital access has significantly or moderately improved income-generating activities. This is largely reflected in the use of mobile banking, online communication, and digital platforms for market expansion. However, the presence of respondents who reported no benefit highlights persistent inequality in access and capability. This uneven outcome suggests that digital entrepreneurship in Abaji is emerging but concentrated among individuals with better skills and resources. Akinwale and Daramola (2024), similarly argue that ICT-driven economic benefits in Nigeria's informal sector are unevenly distributed, favouring those with higher digital competence and better infrastructural access.

For governance participation, the findings reveal a predominantly moderate influence of Digital Inclusion, with fewer respondents indicating high or very high impact, and a minority reporting no impact at all. This suggests that while digital platforms are beginning to create avenues for civic

engagement, they are not yet fully embedded within local governance structures. The implication is that e-governance practices in Abaji remain in a transitional phase, where citizens are exposed to digital tools but have limited structured engagement with decision-making processes. Okoye and Nwafor (2025), support this view by noting that weak institutional readiness, low trust, and limited digital literacy continue to hinder meaningful digital governance participation in Nigeria.

When analysed through the Technology Acceptance Model, these findings suggest that adoption in Abaji is strongly influenced by perceived usefulness and perceived ease of use. Residents generally recognise the usefulness of Digital Technologies, particularly in education support, business communication, and economic activities, which explains the relatively positive responses across the tables. However, perceived ease of use is constrained by factors such as limited digital skills, infrastructural challenges, and inconsistent access to devices and connectivity. These barriers reduce sustained engagement and prevent full optimisation of digital tools, resulting in functional but not deeply transformative usage. From this perspective, Digital Inclusion in Abaji is partially accepted but not fully internalised as a daily developmental tool.

Using the Diffusion of Innovation Theory further clarifies these patterns by showing that

adoption is not uniform across the community but occurs at different stages. The variation between respondents who reported high benefits and those who reported little or none reflects the presence of early adopters, early majority users, and late adopters within the population. Those experiencing strong benefits in entrepreneurship and education can be seen as early adopters who have embraced and effectively utilised Digital Technologies, while those reporting minimal or no impact reflect laggards who are constrained by access, literacy, or exposure. The moderate dominance across most responses suggests that Abaji is largely situated within the early-to-mid diffusion stage, where awareness and trial are present, but full integration has not yet occurred. Both TAM and DOI jointly explain the findings more comprehensively. While TAM highlights the role of perceived usefulness and ease of use in shaping individual adoption behaviour, DOI situates these behaviours within broader social and structural patterns of diffusion. Together, they explain why Digital Inclusion in Abaji produces visible but uneven development outcomes, reinforcing the conclusion that adoption is both a behavioural and socially structured process.

Conclusion

The study concludes that Digital Inclusion in Abaji Area Council plays a meaningful but uneven role in shaping community development outcomes. On the one hand,

digital technologies have become an important part of everyday life, supporting communication, strengthening social networks, and providing residents with new opportunities for income generation and information access. Many individuals now rely on mobile devices and online platforms to sustain small businesses, maintain social relationships, and access basic services, which reflects a growing level of digital integration within the community.

On the other hand, the developmental impact of Digital Inclusion remains limited and uneven across key sectors such as education, entrepreneurship, and governance. The findings show that while access to digital tools exists, the depth of usage and the ability to translate access into meaningful outcomes vary significantly among residents. This unevenness is largely shaped by persistent infrastructural challenges, including unreliable electricity supply, weak internet connectivity, and limited availability of functional ICT facilities. In addition, economic constraints such as the cost of data, devices, and maintenance further restrict consistent digital engagement. The study therefore shows that Digital Inclusion in Abaji is still at a transitional stage. It supports individual-level benefits and social connectivity, but has not yet fully evolved into a strong driver of sustainable and inclusive community development.

Recommendations

- i. The Federal Ministry of Communications, Innovation and Digital Economy should strengthen rural and semi-urban broadband infrastructure in Abaji Area Council to ensure stable and affordable internet access for residents.
- ii. The FCT Secondary Education Board should introduce compulsory digital literacy and practical ICT training programmes in schools within Abaji to enhance students' and teachers' effective use of digital tools.
- iii. The Abaji Area Council Authority should establish community-based ICT centres equipped with functional devices and regular maintenance systems to support entrepreneurship, learning, and civic engagement.
- iv. The National Information Technology Development Agency (NITDA) should implement targeted Digital Inclusion schemes in Abaji focused on subsidised data access and capacity-building for low-income households and informal sector workers.

REFERENCES

- Abubakar, A. (2025). Digital Inclusion and bridging the digital divide in early childhood education in Nigeria. *International Journal of Innovative Information Systems and Technology Research*, 13(3), 155–165.
- Adeleke, O. A. (2022). Digital Inclusion and participatory governance in sub-Saharan Africa: The role of ICTs in enhancing civic engagement. *African Journal of Public Administration and Development*, 11(2), 45–63.
- Adeniran, A. I. (2023). Digital Technologies and socio-economic transformation in Nigeria: Implications for inclusive development. *African Journal of Information Systems*, 15(2), 45–62.
- Adewale, A. A. (2022). Digital transformation and everyday life in Nigeria: Rethinking technology as a development resource. *Nigerian Journal of Communication Studies*, 14(1), 67–82.
- Adewumi, T. O., & Bello, R. A. (2022). Digital literacy and youth entrepreneurship in Nigeria: Assessing ICT skills and innovation capacity. *Journal of Nigerian Economic and Development Studies*, 8(1), 77–94.
- Akinwale, O. S., & Daramola, A. O. (2024). Digital Technologies and informal entrepreneurship in Nigeria: Patterns of adoption and inequality. *Journal of African Digital Economy Studies*, 6(1), 55–72.
- Balogun, I. O., & Kareem, A. K. (2022). Information and communication technology and the transformation of small-scale enterprises in Nigeria. *Journal of African Economic Development*, 7(2), 54–70.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service

- organizations: Systematic review and recommendations. *Milbank Quarterly*, 82(4), 581–629.
- Ibrahim, M. S., & Sadiq, U. A. (2024). Social media, community engagement and social capital formation in Northern Nigeria. *African Journal of Media and Society*, 6(2), 112–129.
- Ibrahim, S. A., & Musa, H. Y. (2023). Digital learning adoption and educational outcomes in semi-urban Nigeria. *Nigerian Journal of Educational Technology*, 10(2), 101–118.
- International Telecommunication Union. (2023). Measuring digital development: Facts and figures 2023. ITU. <https://www.itu.int>
- Lawrence, K. T., & Yusuf, H. O. (2023). Frugal innovation and digital adaptation in Nigeria's low-resource communities. *Journal of African Innovation and Development*, 5(2), 89–105.
- Mishi, S., & Anakpo, G. (2022). Digital inequality and development divide in Africa with implications for Nigeria. *Global Political Economy Journal*, 4(1), 1–15.
- Nwankwo, C. U., & Eze, P. N. (2021). Digital literacy and socio-economic participation in Nigeria's emerging knowledge economy. *Journal of African Media Studies*, 13(3), 321–338.
- Ogbodo, C., Uchenna, E., & Okechukwu, A. (2023). Digital literacy and infrastructure disparities in Nigeria's rural and urban communities. *Journal of Information Technology and Development in Africa*, 9(2), 88–104.
- Ogunleye, O. S. (2023). ICT and community development in Nigeria: Bridging sectoral gaps for inclusive growth. *Nigerian Journal of Development Studies*, 18(1), 101–118.
- Okeke, C. N., & Nnamdi, E. C. (2023). Digital tools and micro-enterprise development in Nigeria's informal economy. *Journal of African Business and Technology*, 5(1), 25–41.
- Okon, E. E., & Ibrahim, M. J. (2022). Infrastructure deficits and digital practices in Nigeria: Understanding technology use in constrained environments. *Nigerian Journal of Technological Development*, 19(3), 211–226.
- Okoye, C. I., & Nwafor, R. O. (2025). E-governance adoption and citizen participation in Nigeria's local

- government system. *African Journal of Public Administration and Governance*, 12(1), 33–50.
- Olaniran, O. O., & Agboola, T. O. (2022). Digital divide and inequality in Nigeria: Rethinking access and inclusion in the digital age. *Information Development*, 38(4), 567–580.
- Onah, C. I., & Eze, J. N. (2022). Community ICT centres and social inclusion in southeastern Nigeria. *Journal of Information Technology and Social Development*, 6(3), 101–118.
- Rogers, E. M. (2003). *Diffusion of Innovations* (5th ed.). Free Press.
- Straub, E. T. (2009). Understanding technology adoption: Theory and future directions. *Journal of Industrial Teacher Education*, 47(4), 8–24.
- Suleiman, A. M., & Abdullahi, R. S. (2024). E-governance and public sector innovation in Nigeria: Challenges and prospects at the local government level. *African Journal of Governance and Public Administration*, 9(1), 77–93.
- United Nations Development Programme. (2022). Digital strategy 2022–2025: Inclusive digital transformation for sustainable development. UNDP.
- Usman, S. A., & Bello, R. A. (2024). ICT infrastructure, policy failure and public trust in Nigeria's digital economy. *African Journal of Science, Technology and Society*, 10(1), 134–150.
- Yusuf, M. A., & Salisu, L. B. (2024). Digital governance and institutional challenges in Nigeria: Prospects for inclusive development. *Government Information Quarterly*, 41(1), 101–118.