

DIGITAL NATIVITY AND DIGITAL TECHNOLOGY ADOPTION AMONG BANK CUSTOMERS IN IBADAN, NIGERIA

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ABSTRACT: This study investigates how influence the prediction of digital nativity on digital technology adoption among bank customers in Ibadan, Nigeria. Despite the rapid expansion of digital financial services, the adoption rate varies significantly across age groups. Using a cross-sectional research design, data were collected from 642 respondents across six local governments in Ibadan. The study employed structured questionnaires to assess customers' adoption of digital technologies. Descriptive statistics and independent-samples t-test were used to analyse the data. The results revealed that age classification significantly influenced digital technology adoption ($t(640) = -2.175, p < .05$), with digital immigrants (29 years and above) demonstrating higher adoption rates than digital natives (28 years and below). The study concludes that age continues to serve as a significant demographic factor influencing digital financial inclusion in Nigeria. It further recommends developing user-friendly platforms and implementing targeted awareness initiatives designed to engage individuals across different age categories.

Keywords: Age, Bank Customers, Digital Nativity, Technology Adoption, Nigeria

INTRODUCTION

Over the past twenty years, digital banking adoption has evolved rapidly, driven by banks that have mastered the art of delivering engaging digital experiences to their customers. Across the global financial landscape, this shift has redefined how banking services are delivered. In Sub-Saharan Africa, the rise of mobile money platforms has pushed the region to the forefront, widening access to financial services far beyond earlier limits. Despite its long history of financial exclusion, several countries in the region now stand out as global examples of economic progress.

The introduction of electronic banking has revolutionised the delivery of financial services in Nigeria. Banking activities that once relied on face-to-face interactions have shifted to digital platforms, giving customers effortless access to their accounts through internet and mobile technologies. Under the broad umbrella of e-banking are services such as online banking, mobile apps, ATMs, and electronic transfers. Through these innovations, efficiency has increased, transaction costs have dropped, and financial inclusion has expanded across the country.

Economic growth, a youthful population, and a large market have attracted growing interest from international investors in Nigeria's banking sector. According to the Nigeria Population (2018),

62% of Nigeria's population falls within the 0–24 age range. Kouladoum et al. (2022) show that the country still has one of the largest unbanked populations in Sub-Saharan Africa. With a median age of 18, Nigeria has a predominantly young and digitally active population, making digital banking an effective means of delivering financial services to this vibrant segment. According to Arora (2020), only 35% of adults in Nigeria possess a registered financial account and are considered digitally included. Consequently, several studies have been conducted to examine the factors influencing the adoption of digital banking in Nigeria.

However, the adoption of digital technology services remains uneven among different demographic groups based on digital nativity. Digital nativity refers to the extent to which an individual has grown up using digital technologies. Individuals who were born and raised during the widespread use of digital technology are generally regarded as digital natives, whereas those born before the widespread adoption of digital technologies are considered digital immigrants because they had little or no exposure to such technologies during their formative years. The classification of age groups as digital natives and immigrants was done by Prensky in 2001. In Nigeria, younger adults, who are typically classified as digital natives, have generally been perceived to embrace digital banking more readily, whereas older adults, who are classified as digital immigrants, are perceived as more hesitant due to lower levels of technological exposure and digital literacy. Soetan et al. (2021) noted that younger customers in Nigeria tend to exhibit greater confidence in using electronic banking services. As a market segment, young customers demand the most modern and technologically advanced channels for conducting their banking transactions. Nwarize (2023) observed that although many Nigerians possess mobile phones with internet access, the growing use of these devices has not translated into a corresponding increase in digital banking adoption within the country.

The generation to which individuals belong has thus become a crucial factor influencing user behaviour in digital banking environments. Understanding how age affects digital technology adoption is vital for banks and policymakers seeking to promote inclusive digital finance in Nigeria. The primary objective of this study is to examine how age influences the adoption of digital technologies among Nigerian bank customers.

Problem Statement

Despite the Central Bank of Nigeria's initiatives to advance cashless banking, age-related differences in the adoption of digital technology continue to exist. Older users are commonly believed to struggle to navigate digital interfaces, while younger individuals are perceived to usually have greater ease with technology. This disparity in perceived digital access threatens to marginalise older populations from enjoying the benefits of today's banking systems. Until now, there has been a lack of empirical studies examining the specific influence of digital nativity on digital technology adoption in Nigeria. The objective of this study is to examine the influence of digital nativity on digital technology adoption in Nigeria. Specifically, the study aims to assess the level of digital technology adoption across different age generations and identify barriers to digital technology adoption among older users in Ibadan.

LITERATURE REVIEW

Concept of Digital Technology

Digital technology adoption refers to the acceptance and usage of digital financial platforms by customers for transactions such as fund transfer, bill payments, and account monitoring. Digital technology now serves as an important channel for providing improved financial services to individuals, particularly those with modern lifestyles and limited time who prefer to focus on more productive activities (Koskelainen et al. 2023). Among the widely used services available through the digital technology platform are internet banking, mobile banking, telephone banking, ATM banking, and Point of Sale (POS) transactions (Anifowose & Ekperiware, 2022). Undoubtedly, digital technology has enhanced the quality of services provided to customers and promoted more efficient documentation of banking records.

Online systems have become progressively more user-friendly, with computer interfaces now requiring less effort to operate, making navigation through available options much easier (Real & Araujo, 2019). As previously noted, the components and products of e-banking services have evolved into self-service delivery channels, enabling banks to provide information and extend services to customers more conveniently through web-based technologies. Age represents a demographic characteristic that can influence technology adoption behaviour through experience, motivation, and cognitive adaptability. Studies have shown that younger individuals tend to adopt digital technology due to familiarity with technology, while older adults often exhibit apprehension due to limited exposure or fear of fraud. Factors such as trust play crucial roles in moderating the impact of age (Schroeder et al., 2023).

Theoretical Framework

The study is anchored by two major theories. The first theory is the technology acceptance model proposed by Davis (1986). The Technology Acceptance Model (TAM), which emphasises two important characteristics influencing potential adopters (perceived usefulness and perceived ease of use), was chosen for this study after a careful analysis of pertinent theoretical models. This framework can be used to define the relationship between consumer satisfaction and electronic banking services. TAM is an appropriate model for elucidating the study's presumptions because it offers a direct and unambiguous link between those presumptions and the research goals, enabling a more thorough explanation of the phenomena being studied.

The second theory used in this study is the innovation diffusion model fine-tuned by Rogers (1995). The Innovation Diffusion Model (IDM) focuses on comprehending how, why, and how quickly novel concepts and technology proliferate within a social system. Rogers (1995) fine-tuned the Innovation Diffusion Theory. It clarifies why people choose to use technology to perform customary tasks. As a result, the research framework is founded on the fundamental assumptions of this study, which are outlined in the IDM. In terms of the theories of change, Innovation Diffusion theory takes a contrary approach to studying changes. Instead of focusing on persuading individuals to change, it sees change as being primarily about the evolution or “reinvention” of products and behaviours, so they become better fits for the needs of individuals and groups.

Empirical Review

Several studies have examined the relationship between age and technology adoption. Oluyinka (2016) observed that digital literacy and trust mediated e-banking adoption across different age categories. Similarly, Rogers, et al. (2017) observed that older adults adopt new technologies at a slower rate, as evidenced by Pew data, underscoring the influence of age on technological engagement. Within each age group, variations in adoption are shaped by individual differences. Early predictors of adoption have been associated with perceived usefulness and ease of use, while other influencing factors evolve. The PRISM trial, which examined technology use over one year, provided further insight into these predictors. Findings from such studies have identified the main factors influencing technology adoption among and within age groups, offering guidance for developing strategies that enhance older adults' engagement with technology to improve their health, social connectedness, and cognitive well-being.

Kar, et al. (2019) examined the perceptions of digital natives and digital immigrants regarding digital banking platforms and social media communication used by Maybank. Using in-depth interviews, the findings showed that both groups generally had positive attitudes towards digital banking and accepted information shared through social media. Czaja, et al. (2008) emphasised that access to computers and the Internet has become a crucial public policy issue due to technology's role in advancing economic, social, and health equity. Although older adults generally use computers and the Internet less than younger individuals, their access and engagement have steadily improved. The study examined changes in computer and Internet usage among two groups of older adults aged 50 to 85 years (N=424) across two periods (2000–2002 and 2006–2007), also assessing how attitudes and demographic factors influenced adoption. Findings showed that while the number of participants with computer experience remained stable, both the range of computer and Internet use expanded, and comfort with technology increased in the later period. Age, education, and computer comfort emerged as strong predictors of usage levels. Understanding these factors helps inform strategies aimed at narrowing the digital divide between adopters and non-adopters.

Fox and Connolly (2018) explored the benefits and challenges of mobile health (m-health) technologies, emphasising their potential to empower individuals, support healthcare professionals, and reduce system-wide costs. Despite these advantages, older adults' reluctance to adopt m-health has contributed to an expanding digital divide linked to age. Drawing on protection motivation theory and social cognitive theory, the study investigated the factors influencing resistance among older adults through a mixed-methods design that combined survey data and qualitative interviews. Results indicated that many older adults' resistance was driven by feelings of inadequacy, mistrust, high perceived risks, and privacy concerns, leading to limited adoption despite access. The research contributed to understanding the intersection of privacy, trust, and digital inclusion by highlighting that accessibility alone does not ensure participation. It recommended inclusive technology design and educational strategies to boost confidence, improve privacy literacy, and build trust to enable greater m-health adoption among older adults.

Berkowsky, Sharit, and Czaja (2017) examined the reasons older adults are less inclined to adopt new technologies, even though such innovations can enhance their quality of life. The study involved fifty-two participants aged 65 and above, who were divided by age and language to assess

nine different technologies through presentations, questionnaires, and focus group discussions. Findings showed that self-assessed abilities, computer and Internet skills, perceived value, confidence in learning, and the anticipated impact on quality of life were the strongest predictors of willingness to adopt technology. Age, language, and technology readiness had weaker associations. The study emphasised that encouraging technology adoption among older adults depends on improving usability, simplifying design, and demonstrating clear value and quality-of-life benefits.

Neves and Mead (2021) investigated the slow adoption of digital technologies among older adults, especially those who are frail and residing in care homes. Drawing on data from a longitudinal mixed-methods study involving a co-designed communication app, the research explored how initiatives to bridge the digital divide evolve. The study found that the adoption process is influenced by factors such as technology design, learning environments, and the roles of surrounding social actors. Through a sociological lens, the study offered deeper insight into how older adults engage with digital technology and contributed significantly to the understanding of digital inequality.

Cosmina and Luiza (2021) examined technology adoption among older adults using a gerontographic segmentation framework to identify factors shaping their acceptance or rejection of new technologies. The study involved interviews with 125 older adults from Romania, Slovenia, and Cyprus, who were classified into four segments based on their physical and psychological well-being. Results revealed notable differences across these groups in terms of technology use, perceived usefulness, and attitudes towards technological innovations. The findings indicated that older adults' experiences with and barriers to technology adoption differ depending on their health and psychological conditions. The study highlighted the effectiveness of gerontographic segmentation in designing, conceptualising, and marketing technologies tailored to the varied needs of older adults.

Fazi, Zaniboni, and Wang (2025) conducted a literature review to investigate the impact of age on technology adoption among employees in contemporary organisations. Using the PRISMA framework, 51 relevant studies were reviewed, all of which indicated distinct age-related variations in workplace technology engagement. The analysis focused on five major antecedents of technology adoption (performance expectancy, effort expectancy, social influence, facilitating conditions, and attitude towards technology use), which collectively shape employees' behavioural intentions and actual technology use. The review concluded that age plays a crucial role in determining how workers perceive, accept, and utilise new technologies within organisational environments.

Eze et al. (2021) investigated how demographic characteristics of SME executives affect the adoption of mobile marketing technologies in Ekiti State, Nigeria, where adoption rates remain relatively low. Data were gathered through questionnaires administered to 230 SMEs operating across six industries. Using hierarchical multiple regression analysis, the study found that executives' age, experience, and educational attainment significantly influenced technology adoption, while firm location moderated this relationship. Gender was also found to play a role in adoption behaviour. The study emphasised the need to account for both demographic and locational

factors when encouraging mobile marketing technology adoption among SMEs in southwestern Nigeria.

Ugwu, et al. (2021) investigated the factors influencing technology adoption and competitive advantage in Nigeria, with a specific focus on how demographic factors affect firms' innovativeness. Employing a correlational survey design, data were gathered from a randomly selected sample of 257 postgraduate students (Postgraduate Diploma, Master's, and Doctorate) across eight faculties at the Federal University of Technology, Owerri, during the 2018/2019 academic session. Pearson Correlation analysis revealed that demographic variables such as educational level, income, and internet experience had significant positive effects on organisational innovativeness. The study recommended that the Federal Ministry of Education introduce a technology-oriented curriculum to promote equal learning opportunities for working citizens and enhance technological literacy. It also advised increased government investment in classroom technology and teacher training in tertiary institutions. The research contributes to existing knowledge by addressing gaps related to the impact of demographic factors on firms' competitiveness within the Federal University of Technology context.

METHODOLOGY

The study adopted a cross-sectional survey design to collect quantitative data from bank customers across Ibadan. The population comprised customers of commercial banks. A sample of 642 respondents was drawn using multistage sampling techniques to ensure representation across age groups. A 9-item structured questionnaire was used to measure digital technology adoption using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). It has an alpha coefficient of 0.97 (Chawla & Joshi, 2019). The present study gathered primary data using a structured questionnaire administered to respondents who are 18 years and older. The age threshold of 28 years was adopted for classification into digital natives and immigrants, because individuals aged 28 years or younger in 2026 were born in or after 1998, a period during which internet access, mobile communication, and digital technologies were becoming increasingly integrated into everyday life. In contrast, those aged 29 years and above were born before this period and were more likely to have experienced the transition from an analogue to a digital environment during adolescence or adulthood. Data were analysed using SPSS 27. Descriptive and inferential statistical techniques were applied in analysing the collected data.

RESULTS

Descriptive Analysis

Table 1: Descriptive statistics of the construct

Constructs	Mean	Standard deviation	Cronbach's alpha
Digital Technology Adoption	4.242	0.527	0.859

Table 1 shows the reliability coefficient for digital technology adoption. Cronbach's alpha was used to assess internal consistency, and the obtained value fell within the acceptable threshold of 0.70 to

0.95 (Suleiman & Yasir, 2022). The construct recorded a mean score of 4.242 for the sample (N = 642), indicating that most respondents generally exhibited positive attitudes towards the measured construct. The standard deviation of 0.527 indicates minimal variation in responses.

Table 2: Descriptive Statistics for Sociodemographic Variables of Bank Customers in Ibadan, Nigeria

Variables	Mean $\pm$ std.	Range	Frequency	Percent
Age	30.14 $\pm$ 11.10	18 - 60		
Monthly income	115.92 $\pm$ 96.75	10 - 500		
Gender				
Male			327	50.9
Female			315	49.1
Marital status				
Single			401	62.5
Married			232	36.1
Others			9	1.4
HEQ				
Secondary			127	19.8
Tertiary education			515	80.2

HEQ = Highest educational qualification

The respondents' demographic details are shown in Table 2. They were between the ages of 18 and 60, with a mean age of 30.14 and a standard deviation of 11.10. With a mean of ₦115.92 and a standard deviation of 96.75, the respondents' monthly income ranged from ₦10,000 to ₦500,000. According to the gender distribution, 315 respondents (49.1%) were female, and 327 respondents (50.9%) were male. In terms of marital status, 232 respondents (36.1%) were married, 401 respondents (62.5%) were single, and 9 respondents (1.4%) indicated other. The majority of respondents were highly educated, as evidenced by the fact that 515 (80.2%) had a tertiary education and 127 (19.8%) had only completed secondary school.

Table 3: Summary table of Independent Samples t-test showing the age difference in the adoption of digital technologies

	Age group	N	Mean	Std. D	df	t	p
Adoption of Digital Technologies	Digital native (28 years and below)	385	37.80	4.88	640	-2.175	< .05
	Digital immigrants (29 years and above)	257	38.63	4.62			

The results from Table 3 indicated that age classification had a significant influence on digital technology adoption ($t(640) = -2.175, p < .05$). Participants classified as digital immigrants reported

significantly higher levels of digital technology adoption (Mean = 38.63; SD = 4.62) than those classified as digital natives (Mean = 37.80; SD = 4.88). This means that **digital immigrants had significantly higher adoption scores than digital natives.**

DISCUSSION OF FINDINGS

Findings revealed that age had an influence on customers' adoption of digital technologies. This is in agreement with Fox and Connolly (2018), Neves and Mead (2021), Cosmina and Luiza (2021), Czaja et al. (2008), Abdullah et al. (2015) and Andrews et al. (2019), who argued that older individuals were motivated to use digital technologies. From this finding, it was learnt that younger customers are more hesitant to adopt digital technologies. This could be associated with their lack of trust in using digital devices for financial transactions and financial freedom. Further, older women and men are also connected to digital platforms, which are considered to be for young people.

In this research, age is shown to be a crucial factor in customers' adoption of digital technologies, with support from earlier studies. When the community endorses the use of digital technologies across all age groups and economic sectors, older-aged customers are more inclined to embrace them. Moreover, it's evident that when people close to an individual, such as friends, relatives, or colleagues, engage with digital technologies in diverse areas of the economy, it tends to influence customers to adopt those same technologies.

Conclusion

According to the study's findings, digital immigrants (older-aged) people in Ibadan, Nigeria, use digital technology at higher rates than digital natives, suggesting that age is a factor in digital adoption behaviour.

Recommendations

Make user interfaces more straightforward and boost accessibility features for users of all ages. Also, it is important to develop marketing approaches that cater to the specific requirements and motivations of various age demographics.

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