

Evaluating the Usage of Online Banking in Zambia

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ABSTRACT

In this study, FNB Zambia's online banking platform is evaluated for usability. User experience has become crucial to adopting services as digital banking changes. Consumer usability views are assessed using the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) in the context of digital literacy and infrastructure. JASP processed 101 structured questions for a quantitative approach. Even while most users find the site user-friendly, usability concerns exist, especially among older and less-educated users. This study emphasizes the importance of inclusive design, mobile optimization, and digital literacy in promoting e-banking in Zambia.

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Introduction

The swift advancement of electronic banking (e-banking) has revolutionized the global provision of financial services. In Zambia, a considerable percentage of consumers still choose traditional banking over digital platforms (Mwiya et al B. M., 2017). This mismatch creates apprehensions regarding the usability of e-banking systems. When it comes to banks like First National Bank Zambia (FNB), which has significantly invested in digital infrastructure, understanding consumer impressions of usability is essential for closing the adoption gap. This study evaluates the user-friendliness of the bank's electronic service products from the customers' perspective, driven by the research question, "how do customers perceive the user-friendliness and ease of use of the bank's electronic service products?"

Literature Review

User-friendliness is fundamental to the Technology Acceptance Model (TAM), which asserts that

perceived ease of use (PEOU) and perceived usefulness (PU) influence technology acceptance (Davis, 1989). Research indicates that intuitive interfaces and accessibility improve perceived ease of use, directly affecting customer satisfaction (Liao & Cheung, 2002). In African contexts, deficiencies in digital literacy and infrastructure, intensify usability issues, requiring platforms designed for varied user competencies (Ayo et al, 2016). In emerging nations where consumers may have limited technological proficiency, simplicity is crucial for e-banking customer satisfaction (Chungu & Phiri, 2024).

Subsequent models, such as the Unified Theory of Acceptance and Use of Technology (UTAUT), (Davis, 1989; Venkatesh & Davis, 2000), offer a more comprehensive perspective by integrating social impact, enabling factors, and effort expectation (Ahmad, 2024). In underdeveloped countries, UTAUT's "facilitating conditions" (such as infrastructure and assistance) are essential, as

evidenced by Zambia, where inadequate digital literacy and inconsistent internet connectivity hinder adoption (Mwiya et al B. M., 2017; Mwiya et al B. M., 2022). Recent modifications of UTAUT2 incorporate hedonic incentive and habit, which elucidates mobile banking behaviors in Africa (Hamilandu, 2025; Badiang & Nkweib, 2024).

SADC Region Perspective

The digital divide in Zambia is intensified by disparate internet penetration, with mobile broadband coverage reaching 63% in urban areas compared to 28% in rural regions (ITU, 2022). This gap corresponds with Mwiya et al.'s (2017), results about Zambia's minimal e-banking adoption, with merely 22% of rural inhabitants utilizing digital platforms (Mwiya et al B. M., 2022). Comparative studies in Kenya demonstrate how mobile-first solutions such as M-Pesa enhanced accessibility via SMS-based interfaces, accommodating low-literacy consumers (Ayo et al, 2016; Suri & Jack, 2016), emphasize that African e-banking systems should prioritize offline capabilities and multilingual assistance to address linguistic and infrastructural disparities (Khera, 2022; Sikalumbi, 2023).

Jun and Palacios (2016), identified that simplified system navigation and stability are the fundamental pillars of e-banking satisfaction. Recent studies highlight mobile optimization, indicating that 95% of African consumers utilize cellphones for banking (Shanahan & Bahia, 2023). Lightweight applications with little data usage, as suggested by Badiang & Nkweib (2024), are crucial in Zambia's bandwidth-limited context. Moreover, inclusive design principles such as gradual feature disclosure and voice-assisted interfaces can alleviate cognitive burden for inexperienced users (Corbett & Weber,

2016; Sikalumbi et al, 2025). For example, Capitec Bank in South Africa improved usability by incorporating step-by-step video training onto their app, hence enhancing engagement among older individuals (BOZ, 2020).

Methodology

A quantitative mono-method approach was utilized, employing structured questionnaires distributed to 101 consumers of FNB Zambia. The sample consisted of 49.5% male and 50.5% female respondents, with an average age group between 31–40 years (44.6%), with 87% possessing tertiary education. Data were examined utilizing Jeffreys's Amazing Statistics Program (JASP), concentrating on Likert-scale comments pertaining to user experience. The research onion framework by Saunders, (2019), directed the deductive method, according to positivist paradigms to objectively assess usability judgments (Saunders M. N., 2023; Sikalumbi, 2023).

Findings

Results indicated that 78.2% of participants assessed FNB's e-banking platform as "easy" or "very easy" to use, consistent with the Technology Acceptance Model's focus on Perceived Ease of Use (Davis, 1989). Nonetheless, 19.8% reported indifferent or adverse experiences, attributing them to convoluted navigation menus and ambiguous directions. Technical complications, including application crashes recorded at (13.9%), which further obstructed usability. Demographic study revealed that users with higher education levels saw the site as more accessible, indicating that digital literacy levels affect perceived ease of use. Smartphone usage constituted 95% of e-banking interactions (Alalwan et al, 2018), highlighting the necessity for

mobile-optimized designs (Badiang & Nkweib, 2024).

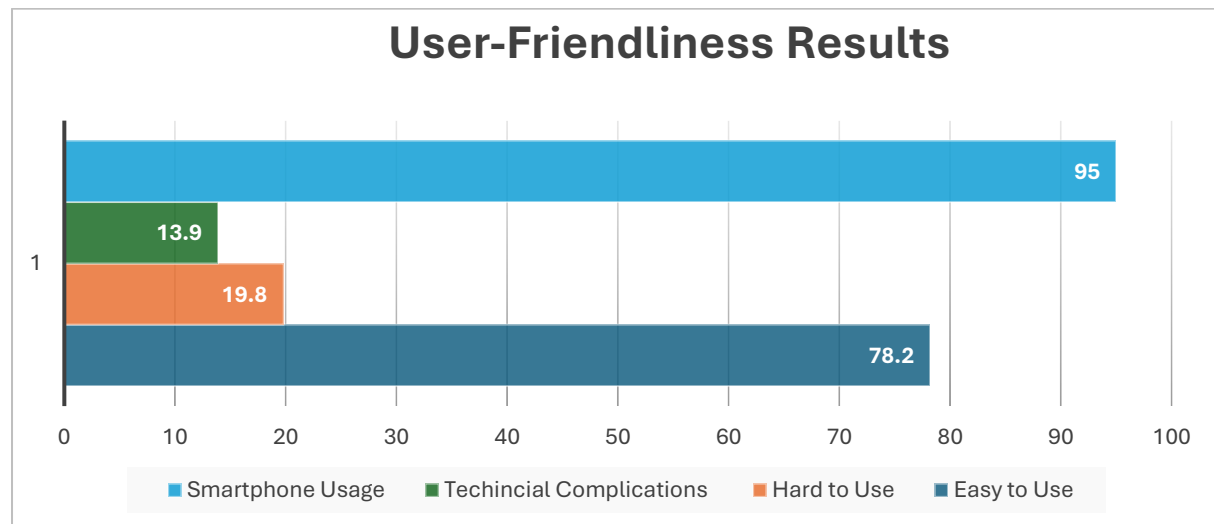


Figure 1: User-Friendliness Results

Demographic Profile of Respondents

The study captured a balanced gender distribution, with 49.5% male and 50.5% female participants. Middle-aged individuals (31–50 years) constituted the majority (67.4%), while older adults (51+ years) represented only 6.9% of the sample. Education levels skewed heavily toward tertiary qualifications, with 87.2% of participants holding a bachelor's degree or higher. Employment status further highlighted the profile of e-banking users: 71.3% were employed, 9.9% self-employed, and 8.9% students. This demographic alignment suggests that FNB's e-banking services are predominantly used by educated, employed individuals, likely due to their higher digital literacy and financial activity (Mwiya et al., 2017).

Category	Percentage
Gender	
Male	49.5%
Female	50.5%
Age Group	
21–30 years	21.8%
31–40 years	44.6%
41–50 years	22.8%
51+ years	6.9%
Education Level	
Bachelor's Degree	42.6%
Master's Degree	44.6%
Diploma	8.9%
Secondary	3.0%

Table 1: Participant Demographics

Awareness of FNB's e-banking services was nearly universal, with 97% of respondents confirming familiarity with digital platforms. Despite this, usage

Awareness and Usage of E-Banking Services

patterns varied significantly. Mobile banking emerged as the most utilized service (95%), followed by ATM services (62.4%) and online

banking (42.6%). Tablet-based banking lagged at 8.9%, likely due to limited device ownership in

Zambia (Mukosa, 2024). Frequency of use revealed that 37.6% engaged with e-banking daily, primarily for balance checks and airtime purchases, while 22.8% used it monthly for bill payments. Rural participants reported lower engagement, citing inconsistent internet access and device availability (Mwiya et al., 2017; Sikalumbi, 2023).

Table 2: E-Banking Service Utilization

Service	Usage Percentage
Mobile Banking	95%
ATM Services	62.4%
Online Banking	42.6%
Tablet Banking	8.9%

User-Friendliness and Accessibility

Most users (78.2%) rated FNB's e-banking platform as "easy" or "very easy" to navigate. However, 19.8% described the interface as "neutral," citing challenges with complex menus for loan applications or fund transfers (Ayo et al., 2016). Accessibility barriers were significant: 43.6% of participants identified poor internet connectivity as a primary obstacle, while 16.8% highlighted technical glitches such as app crashes. Rural users faced compounded issues, with 68% reporting connectivity-related transaction abandonments compared to 15% in urban areas (Mwiya et al., 2017; Tembo & Sikalumbi, 2025).

Table 3: Perceived Ease of Use

Rating	Percentage
Very Easy	41.6%
Easy	36.6%
Neutral	19.8%
Difficult	1.9%

Reliability and Security Perceptions

Reliability perceptions were largely positive, with 63.4% of users describing e-banking services as "reliable" and 23.8% as "very reliable" (Zulu, 2025). Mobile banking received the highest approval (72%), while ATM services trailed at 58%. Despite this, rural users expressed lower satisfaction (54%) due to frequent service disruptions (Mwiya et al., 2017). Security concerns persisted: 29.7% "strongly agreed" that transactions were secure, but 11.9% reported encountering issues such as phishing or unauthorized access (Hanafizadeh et al., 2014). Older adults (51+) exhibited heightened skepticism, with 35% questioning platform security (Adeoye & Lawanson, 2012).

Table 4: Reliability Ratings

Service	Very Reliable	Reliable	Neutral
Mobile Banking	32%	40%	20%
Online Banking	25%	40%	25%
ATM Services	20%	38%	30%

Customer Satisfaction and Preferences

Customer satisfaction was high, with 88.2% of users "satisfied" or "very satisfied" with e-banking services. Satisfaction correlated strongly with perceived reliability ($p = 0.75$) and ease of use ($p = 0.78$) (Davis, 1989; Venkatesh et al., 2003). Despite this, 46.5% preferred hybrid banking models, combining digital convenience with occasional branch visits for complex transactions like loan applications. Security concerns

(46.5%) and a desire for human interaction (39.4%) drove this preference (Aisha & Rakesh, 2022). Rural users were three times more likely to adopt hybrid models than urban counterparts.

Table 5: Customer Preferences

Preference	Percentage	Primary Reason
E-Banking Only	52.5%	Convenience (85%)
Hybrid Banking	46.5%	Security (46.5%)
In-Person Only	0.9%	Distrust in Technology

Key Insights

The findings underscore the dual challenge facing FNB Zambia: advancing e-banking innovation while addressing infrastructural and cultural barriers. While reliability and user-friendliness drive satisfaction, persistent connectivity issues and security concerns sustain demand for hybrid models. Strategic investments in rural connectivity, simplified interfaces, and transparent security protocols are critical to bridging these gaps (Mwiya et al., 2017). Future efforts must prioritize inclusivity to ensure Zambia's digital banking evolution benefits all demographic groups.

- **Demographic Bias:** E-banking adoption is concentrated among educated, employed, middle-aged users, reflecting Zambia's digital divide (Mwiya et al., 2017).
- **Infrastructural Barriers:** Poor internet connectivity and technical glitches hinder rural participation, exacerbating urban-rural disparities (Mukosa, 2024).

- **Hybrid Banking Demand:** Nearly half of customers prefer blending digital and in-person services, emphasizing the need for human reassurance in complex transactions (Aisha & Rakesh, 2022).
- **Security Concerns:** Despite high reliability ratings, security incidents erode trust, particularly among older adults (Hanafizadeh et al., 2014).

Discussion

The elevated usability scores indicate FNB's effectiveness in serving technologically proficient groups. The enduring presence of neutral and negative views underscores inequalities in user competencies. Older or less-educated consumers may encounter difficulties using sophisticated functionalities, reflecting the results of Mwiya et al. (2017), about Zambia's digital divide. The association between education and usability highlights the necessity for inclusive design techniques. Moreover, technological malfunctions and connectivity problems, noted by 43.6% of consumers, correspond with worldwide difficulties in e-banking dependability (Badiang & Nkweib, 2024).

Recommendations

Streamline The Design of Interfaces

Simplifying navigation choices by getting rid of unnecessary options and putting together functions that are like making them easier to find. FNB Zambia can use sequential transparency, like statistical process controls and machine learning, in which advanced features only show up when they are needed, to keep

people from getting too much information. In addition, FNB can add sequential training sections to the app, such as step-by-step guided tutorials or live walk-throughs. These can help people who aren't very good with technology learn at their own pace, which can boost their confidence and make things easier to use.

Improve Mobile Optimization

Given that internet speeds in Zambia vary, FNB Zambia should focus on a mobile-friendly, lightweight design that loads quickly on slow networks. FNB can make services available in rural areas with spotty internet by using adaptable data compression to reduce the amount of data needed for activities. Reduce graphics that use a lot of resources and make sure the app works with multiple operating systems to make it better for older smartphone models.

Enhance Digital Literacy Initiatives

The bank can form relationships with community groups, colleges, and professional training centers to hold hands-on classes on digital banking technologies. They can also create educational material that works on mobile devices, like short explainer films and engaging quizzes that can be accessed on FNB's website and mobile app. Use SMS and social media to reach out to customers and share easy banking tips. This will help FNB Zambia reach more customers who aren't very good with technology.

Conclusion

FNB Zambia's e-banking technology has robust usability for educated, working populations. Nonetheless, ongoing difficulties faced by older and

less-educated users require specific solutions. By using inclusive design principles and overcoming technological obstacles, FNB may improve user-friendliness, promote wider adoption, and match global trends in digital banking.

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