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Mobile Money and Digital Financial Services Ecosystem in Adamawa State

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ABSTRACT

Financial inclusion is essential for economic development, especially in regions with limited access to formal banking systems. In Adamawa State, Nigeria, mobile money and digital financial services have emerged as innovative tools for bridging this gap. This study investigates the awareness, adoption, usage, and socioeconomic impact of these services in the state. Using survey data from 220 respondents and supported by literature, the findings reveal high levels of awareness and usage, significant economic benefits, but also persistent infrastructural and educational barriers. Recommendations are provided for improving service quality, expanding access, and promoting digital literacy.

Keywords: mobile money, POS services, financial inclusion, digital finance, ecosystem

INTRODUCTION

Financial inclusion—defined broadly as the ability for individuals and businesses to access affordable, appropriate, and effective financial products—remains a pressing challenge in Nigeria. Scholars have offered different definitions of the term, some focusing on access (the physical and economic availability of financial services) while others emphasize usage (how frequently and effectively these services are used). These differences are more than academic; they shape how policymakers design interventions and how success is measured.

In rural Nigeria, the absence of traditional banking infrastructure amplifies financial exclusion, forcing individuals to rely on informal systems that can be insecure and costly. Addressing this gap requires solutions that are not only technically innovative but also socially and economically adaptable to local realities. In recent years, mobile money and Point-of-Sale (POS) services have become pivotal in the digital financial services ecosystem. While both aim to improve financial access, they differ in operation. Mobile money enables users to store, send, and receive money using mobile phones, often without the need for a bank account.POS services facilitate cashless payments in physical locations, usually linked to bank accounts or digital wallets.

Evidence from Kenya, Ghana, Zimbabwe, Somalia, and Uganda illustrates mobile money's transformative potential (Mutsonziwa & Maposa, 2016; Sackitey, 2018; Bongomin et al., 2018). However, these successes depend on specific conditions—such as robust mobile penetration, widespread agent networks, and supportive regulation—that may not be equally present in Adamawa State. POS services, on the other hand, have the capacity to reduce cash dependency and build users' credit profiles but require reliable electricity, stable internet connectivity, and trust in digital transactions to be effective.

Despite the promise, adoption in Adamawa faces obstacles: erratic power supply, poor connectivity, limited digital literacy, and skepticism toward cashless systems—particularly among older demographics. Recognizing both opportunities and limitations, this study critically examines the influence of mobile money and POS services on financial inclusion in Adamawa State, assessing their adoption, usage patterns, and impact on economic participation.

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OBJECTIVE OF THE STUDY

The objective of this study is to look at how mobile money and POS services impact financial inclusion in Adamawa State by analysing how they are used, how they are adopted, and how they affect important financial indicators like account ownership, transaction volumes, and access to savings and credit. The study also wants to look into how these services work together to make a more connected and inclusive financial ecosystem, how social networks can help people use them, and what the pros and cons are of using these tools to make it easier for people to get money. This study goes beyond just assuming that "success stories" from other places will happen in Adamawa. It uses real-world data and a critical review of existing research to base its conclusions on the state's specific social, economic, and infrastructure conditions.

LITERATURE REVIEW

Conceptual Framework

Financial transactions carried out through mobile devices without necessitating a conventional bank account are referred to as mobile money. It includes services like credit access, savings, bill payment, and money transfers. Definitions differ; some include a wider range of financial activities, while others concentrate only on payment functions. This discrepancy results from varying opinions regarding whether mobile money is merely a conduit for transactions or a full replacement for traditional banking.

Point-of-Sale (POS) services process payments, usually with a card or digital wallet, via electronic terminals. While POS adoption is frequently cited as an indication of technological advancement, its impact on financial inclusion hinges on whether it makes formal financial services more accessible or if it merely replaces cash payments without increasing systemic and wider financial participation.

Research findings and policy directions are impacted by the lack of agreement on the definition of financial inclusion. While some studies emphasise qualitative factors like affordability, trust, and user empowerment, others take a strictly quantitative approach, counting account numbers or transaction volumes.

THEORETICAL FRAMEWORK

This study applies two complementary models:

Diffusion of Innovation (DOI) by Rogers, 1962, explains adoption through attributes like relative advantage, compatibility, complexity, trialability, and observability. While valuable, DOI assumes a relatively linear adoption process that may not fit environments with infrastructural bottlenecks. Technology Acceptance Model (TAM) by Davis, 1989, emphasizes perceived usefulness and ease of use. TAM is strong in explaining individual adoption decisions but less effective in addressing systemic barriers such as regulation and market competition.

Empirical Studies

Mobile money’s rapid growth in sub-Saharan Africa is well-documented. Kenya’s M-Pesa transformed access to finance (Jack & Suri, 2011), but its success was aided by a favorable regulatory framework and a dominant market position—conditions not guaranteed elsewhere. In Ghana, Sackitey (2018) observed improved transaction efficiency but also found that education and income levels significantly shaped adoption. In Nigeria, Aker and Wilson (2013) highlighted mobile money’s potential in rural areas, yet pointed to regulatory uncertainty and weak agent networks as obstacles.

Other findings deepen the picture, Olaleye et al. (2018) identified regional and educational disparities as major adoption factors. Mutsonziwa & Maposa (2016) noted cost reductions but did not fully explore cultural barriers to adoption. Bongomin et al. (2018) emphasized social networks’ role in influencing trust and adoption. Alhassan & Koaudio (2019) linked mobile money growth to macroeconomic gains but assumed

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causality without detailed testing. Critically, much of this literature assumes that technological readiness automatically translates into financial inclusion a claim this study examines in Adamawa's context.

METHODOLOGY

A descriptive survey design was employed. Primary data were collected from 220 residents of Adamawa State using a structured questionnaire covering demographics, awareness, usage patterns, service preferences, and perceptions regarding mobile money and digital financial services. Descriptive statistics—including frequencies, percentages, mean, median, and mode—were applied using SPSS 25 to analyze the data.

RESULTS AND DISCUSSION

The demographic profile showed that 66.2% of respondents were aged 18–34 years; 76% were male, and 90.8% had tertiary education. Urban residents constituted 68.2% of the sample. Awareness was high: 86.6% of respondents were aware of mobile money and 97.2% were aware of digital financial services. Usage was similarly robust, with 90.7% having used mobile money and 91.3% having used at least one digital financial service.

Mobile transfers (72.2%), mobile banking apps (69.9%), and bill payments (44%) were the most common services. The leading POS providers were Moniepoint (30%), OPay (23%), and PalmPay (16.9%). Convenience (70.9%), accessibility (62.6%), and transaction speed (60.6%) were primary adoption motivators.

Network issues (55.4%) and high transaction fees (8.9%) were notable challenges. Nonetheless, 93.5% of users reported being satisfied or very satisfied. Economic benefits included easier transactions (44.8%), improved business operations (29.5%), and enhanced savings capability (26.2%). Overall, 77.1% believed that digital financial services had improved financial inclusion in their community.

The high awareness and adoption levels reflect the relative advantage and compatibility of mobile money and POS services with users' daily financial needs, supporting the DOI theory. The strong influence of perceived usefulness (e.g., convenience) and perceived ease of use (e.g., app interfaces) corroborates TAM. Despite pervasive network challenges and fees, positive economic outcomes suggest that digital finance is a viable pathway to socioeconomic empowerment in Adamawa State.

RECOMMENDATIONS

1. Infrastructure development: Expand network coverage and improve power supply to reduce service downtime.
2. Service quality: Simplify user interfaces and offer multilingual support to accommodate diverse literacy levels.
3. Security enhancement: Deploy biometric authentication and advanced fraud detection systems.
4. Digital literacy programs: Provide community-based training, particularly for rural and older populations.
5. Policy support: Foster collaboration among stakeholders and enforce consumer protection regulations.

CONCLUSION

Mobile money and digital financial services play an increasingly central role in promoting financial inclusion in Adamawa State. Although challenges remain, particularly in infrastructure and user education, the socioeconomic benefits are evident. Strategic interventions addressing these barriers can unlock the full potential of digital finance for inclusive growth.

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