



RESEARCH ARTICLE – 1

IMPACT OF MOBILE MONEY ON THE FINANCIAL EMPOWERMENT OF RURAL WOMEN AGRIPRENEURS IN NIGERIA: A COMPREHENSIVE REVIEW

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ABSTRACT

The advent of mobile money has revolutionized access to financial services, particularly in developing countries where traditional banking infrastructure is limited. This research review explores the impact of mobile money on the financial empowerment of rural women agripreneurs in Nigeria. Rural women in agriculture often face significant barriers to financial inclusion, limiting their access to credit, savings, and investment opportunities. Mobile money provides a promising solution by offering a convenient, accessible, and secure platform for financial transactions. This review examines existing literature on the subject, identifies key challenges and opportunities, and provides policy recommendations to enhance the financial empowerment of rural women agripreneurs through mobile money services.

Keywords: Agripreneurship, Empowerment, Financial inclusion, Rural, Women, Nigeria

INTRODUCTION

In Nigeria, agriculture remains a crucial sector of the economy, contributing significantly to employment and GDP (Sadiq *et al.*, 2021). Within this context, women play a critical role, contributing significantly to agricultural production, processing, and marketing (Sadiq *et al.*, 2022a&b). Despite their contributions, rural women agripreneurs often face systemic challenges that limit their economic empowerment and access to financial services (Chinelo and Ayodeji, 2022). These challenges include limited access to formal financial services such as credit, savings, and insurance, all of which are crucial for improving agricultural productivity and supporting business growth (Sajuyigbe, 2017). Traditional banking institutions are often inaccessible to rural women due to geographic isolation, lack of formal identification, and socio-cultural norms that restrict women's participation in the formal economy.

In recent years, mobile money has emerged as a promising tool for enhancing financial inclusion and addressing these barriers (Oladunni *et al.*, 2024). Mobile money allows users to store, send, and receive money using their mobile phones without the need for a traditional bank account. By leveraging mobile technology, mobile money services can reach previously underserved populations, including rural women agripreneurs. In Nigeria, where mobile phone penetration continues to rise, mobile money presents a unique opportunity to empower rural

women by providing them with access to essential financial services that can drive economic growth (Babajide *et al.*, 2020).

The concept of financial empowerment involves enabling individuals to gain control over their financial resources, make informed decisions, and access financial services that improve their economic well-being (Ananwude *et al.*, 2018). For rural women agripreneurs, financial empowerment means gaining access to the tools and resources needed to invest in their businesses, increase productivity, and achieve financial independence. Mobile money has the potential to facilitate this empowerment by overcoming traditional barriers to financial inclusion. By providing a convenient, accessible, and secure platform for financial transactions, mobile money can enable rural women to access credit, save money, and manage financial risks, all of which are critical for supporting their agripreneurial activities.

However, despite the potential of mobile money to enhance financial inclusion, rural women still face significant challenges in adopting and utilizing these services. Barriers such as low levels of digital literacy, limited access to mobile phones, socio-cultural norms that limit women's control over finances, and infrastructural issues like poor network coverage can hinder the effective use of mobile money by rural women agripreneurs (Egbo *et al.*, 2020). These challenges must be addressed to ensure that mobile money can fulfil its potential as a tool for financial empowerment.

This research review aims to explore the impact of mobile money on the financial empowerment of rural women agripreneurs in Nigeria. It seeks to understand how mobile money services are being used to enhance financial inclusion for women in rural areas, identify the key challenges that limit the adoption of mobile money, and provide recommendations for improving the accessibility and effectiveness of mobile money services for rural women. By addressing these issues, this review contributes to the broader discussion on how digital financial services can support the economic empowerment of rural women in developing economies. Consequently, the specific objectives were:

1. To understand the role of mobile money in improving access to financial services for rural women agripreneurs.
2. To assess the impact of mobile money on the financial inclusion and economic empowerment of rural women in agriculture.
3. To identify the challenges and barriers faced by rural women in adopting mobile money services.
4. To provide policy recommendations for enhancing mobile money adoption among rural women agripreneurs in Nigeria.

Literature Review

The Concept of Financial Empowerment

Financial empowerment refers to the process of enabling individuals to gain control over their financial resources, make informed decisions, and access financial services that enhance their economic well-being (Ajide, 2020). For rural women agripreneurs, financial empowerment involves gaining access to credit, savings, insurance, and other financial services that support agricultural production, investment, and income generation. Mobile money, as a financial innovation, has the potential to empower women by overcoming traditional barriers to financial inclusion.

The Evolution of Mobile Money in Nigeria

Mobile money was first introduced in Nigeria in 2009, but its adoption has accelerated in recent years due to increased mobile phone penetration and the expansion of mobile network coverage (Babajide *et al.*, 2020). According to the Central Bank of Nigeria (CBN), the number of registered mobile money users has grown exponentially, with millions of Nigerians now using mobile money services for various financial transactions (Central Bank of Nigeria (CBN),

2020). Several mobile money platforms, including Paga, OPay, and MTN Mobile Money, have emerged as major players in the Nigerian market (Ajekwe, 2020; Salawu & Fasakin, 2021).

Mobile Money

Mobile money refers to financial transactions and services conducted via mobile phones (Njuki *et al.*, 2023). These services include money transfers, bill payments, savings, loans, and insurance (Ajekwe, 2020). Mobile money is especially important in regions where traditional banking infrastructure is limited, as it offers a cost-effective and accessible alternative for the unbanked population (Mulili, 2020).

RESEARCH METHODOLOGY

Relevant journals, articles, bulletins, books were sourced from the review of literature and the data collected were systematically analysed.

RESULTS AND DISCUSSION

The Role of Mobile Money in Financial Inclusion

Several studies have highlighted the role of mobile money in promoting financial inclusion among the unbanked and underbanked populations in developing countries. In Nigeria, mobile money services have been pivotal in reaching rural populations who are typically excluded from formal banking services due to geographic and socio-economic barriers (Okoyeuzu, 2020). Mobile money allows users to store, send, and receive money through their mobile phones, eliminating the need for a physical bank account (Mulili, 2020). This has particular relevance for rural women, who may face additional barriers such as lower levels of literacy and mobility (Ogunode and Akintoye, 2023).

Impact of Mobile Money on Financial Inclusion

Mobile money has been recognized as a key driver of financial inclusion, particularly in rural areas where traditional banking infrastructure is lacking (Soetan & Mogaji, 2024). Research has shown that mobile money can significantly reduce the cost of financial transactions, increase the accessibility of financial services, and provide a secure platform for saving and transferring money (Siano *et al.*, 2020; Elouaourti and Ibourk, 2024). For rural women agripreneurs, these benefits are particularly important, as they often face challenges in accessing formal financial institutions.

Access to credit

One of the major challenges faced by rural women agripreneurs is limited access to credit. Traditional banks often require collateral, credit history, and formal identification, which many rural women lack. Mobile money platforms have started to address this gap by partnering with microfinance institutions and fintech companies to offer microloans and credit facilities to mobile money users (Yeyouomo *et al.*, 2023; Chinelo and Ayodeji, 2022). Research by the Consultative Group to Assist the Poor (CGAP) found that mobile money can enhance access to credit for women by providing alternative credit scoring mechanisms based on transaction history and mobile phone usage data (Consultative Group to Assist the Poor (CGAP), 2018).

Savings and investment

Mobile money also offers rural women agripreneurs a secure and convenient platform for saving money. Unlike traditional savings accounts, mobile money wallets do not require a minimum balance or formal documentation, making them more accessible to low-income women. Studies have shown that access to mobile money can increase savings rates among women, which in turn can lead to increased investment in agricultural inputs, education, and healthcare. A study conducted by the Bill & Melinda Gates Foundation found that women who used mobile money were more likely to save regularly and invest in their businesses (Bill & Melinda Gates Foundation 2020).

Insurance and risk management

Agricultural production is inherently risky, and rural women agripreneurs are particularly vulnerable to climate-related risks, price fluctuations, and crop failure. Mobile money has facilitated the development of microinsurance products that provide coverage for agricultural risks. These insurance products are often bundled with mobile money services, allowing women agripreneurs to pay premiums and receive payouts through their mobile phones. Research conducted by the International Food Policy Research Institute (IFPRI) found that access to micro-insurance through mobile money platforms can significantly reduce the vulnerability of rural women to agricultural shocks (Ovwigho, 2024).

Impact on Economic Independence

Mobile money has been shown to enhance economic independence by enabling women to manage their finances independently. This includes receiving payments for agricultural produce, paying suppliers, and saving money securely. Studies in other African countries, such as Zimbabwe, Mali and Kenya (Kairiza *et al.*, 2017; Koloma, 2021; Gichuki & Kamau, 2022), have demonstrated that mobile money can lead to significant improvements in women's financial autonomy. Similar trends are emerging in Nigeria, where rural women agripreneurs use mobile money to bypass traditional financial barriers, such as high transaction fees and lack of bank branches.

Economic Implications of Mobile Money for Rural Women Agripreneurs

The economic implications of mobile money for rural women agripreneurs in Nigeria are profound. With improved access to financial services, women are empowered to make informed economic decisions (Babajide *et al.*, 2020). Mobile money enables women to break free from informal lending circles and provides them with formal channels to access credit at lower interest rates (Funmilola, 2023). Additionally, the ease of transferring money allows them to engage in more extensive trade activities, leading to increased business revenue. Research indicates that mobile money can boost economic participation by enabling rural women to engage in economic activities beyond subsistence farming, contributing to broader economic growth in rural communities.

Social Empowerment and Gender Equality

Mobile money also plays a critical role in the social empowerment of rural women agripreneurs. By providing access to financial services, mobile money enhances women's financial autonomy, allowing them to control their own earnings and savings (Akeju, 2024). This shift in financial power can lead to improved gender dynamics within households, as women gain greater influence over financial decisions (Njuki *et al.*, 2023). Furthermore, mobile money can help reduce gender disparities in financial inclusion, as it provides a more accessible and affordable alternative to traditional banking, which often excludes women due to various socio-economic barriers.

Impact on Agricultural Productivity

Mobile money can directly contribute to increased agricultural productivity among rural women agripreneurs by facilitating access to credit for the purchase of agricultural inputs such as seeds, fertilizers, and equipment. With improved financial access, women can invest in modern farming techniques and technologies, leading to higher yields and increased income. Additionally, mobile money platforms can support agricultural value chains by enabling quick and secure payments between farmers, suppliers, and buyers, reducing transaction costs and increasing market efficiency.

Mobile Money and Poverty Reduction

The introduction of mobile money services in rural areas has been linked to poverty reduction, particularly among women. Access to mobile financial services can reduce reliance on informal financial systems, which are often costly and unreliable. Mobile money allows rural women to save money securely, send and receive remittances from family members, and access

emergency funds when needed (Chinelo & Ayodeji, 2022). This financial security can help mitigate the effects of poverty by providing a safety net in times of crisis (Yang *et al.*, 2023). Studies have shown that mobile money adoption is associated with improved household income and better economic resilience in rural communities (Ibor *et al.*, 2017; Oluwatayo, 2024).

Challenges in Mobile Money Adoption

Digital literacy and awareness

Despite the potential benefits of mobile money, many rural women in Nigeria face challenges in adopting these services. One of the key barriers is digital literacy. Many rural women, particularly those with low levels of education, may struggle to understand how to use mobile money platforms. Additionally, there is often a lack of awareness about the benefits of mobile money and how it can be used to access financial services.

Cultural and gender barriers

Cultural norms and gender roles can also limit the adoption of mobile money among rural women. In some communities, women may have limited control over household finances, and decisions related to financial services may be dominated by male family members (Hasan *et al.*, 2023). Additionally, women may face restrictions on mobility, limiting their ability to access mobile money agents or service points.

Network and infrastructure issues

While mobile phone penetration is increasing, many rural areas still suffer from poor network coverage and unreliable infrastructure. This can limit the effectiveness of mobile money services, particularly in remote areas where mobile network providers have limited reach (David-West & Nwagwu, 2024). Additionally, the lack of electricity and reliable internet access can hinder the use of mobile money platforms, as women may struggle to charge their phones or access mobile money agents.

Case Studies: Mobile Money and Rural Women Agripreneurs in Nigeria

Case study 1: The role of Paga in empowering rural women in northern Nigeria

Paga, one of Nigeria's leading mobile money platforms, has made significant strides in reaching rural women agripreneurs in Northern Nigeria. Through partnerships with local microfinance institutions and agricultural cooperatives, Paga has been able to offer credit, savings, and insurance services to rural women, enabling them to invest in their farms and improve their livelihoods. A study conducted by the Nigerian Economic Summit Group (NESG) found that women who used Paga were more likely to access credit and increase their agricultural productivity (Nigerian Economic Summit Group (NESG), 2021).

Case study 2: MTN mobile money and financial inclusion in southern Nigeria

MTN Mobile Money has focused on expanding financial inclusion in Southern Nigeria, particularly among women in agriculture. By offering a range of financial services, including savings, loans, and remittances, MTN Mobile Money has helped rural women agripreneurs overcome barriers to financial access. A study conducted by the International Finance Corporation (IFC) found that women who used MTN Mobile Money were more likely to save regularly and invest in agricultural inputs, leading to increased income and improved financial security (International Finance Corporation (IFC), 2020).

Case study 3: Mobile money and women's economic empowerment in the Niger Delta

In the Niger Delta region of Nigeria, mobile money has been instrumental in fostering economic empowerment among rural women engaged in agriculture. Many women in this region, particularly those involved in small-scale farming, have adopted mobile money to improve their financial management. By using platforms such as OPay and Paga, women in the Niger Delta have gained access to credit and savings products that were previously out of reach. This access has enabled them to invest in new agricultural ventures and expand their

businesses. According to a report by the African Development Bank (AfDB), women who used mobile money in the Niger Delta experienced a 25% increase in their agricultural output and income.

The Role of NGOs and Development Agencies

Non-governmental organizations (NGOs) and development agencies play a critical role in promoting mobile money adoption among rural women agripreneurs. Many NGOs, such as CARE International and Mercy Corps, have launched financial inclusion programs that integrate mobile money services with agricultural training and support. These programs often focus on building the digital literacy of rural women, ensuring that they can fully utilize mobile money services. Additionally, development agencies, such as the World Bank and the United Nations Development Programme (UNDP), have provided funding and technical assistance to expand mobile money infrastructure in rural areas.

Future Directions

Technological innovations for enhanced financial services

To further enhance the financial empowerment of rural women agripreneurs in Nigeria, there is a need for continuous innovation in mobile money services. Emerging technologies, such as blockchain, artificial intelligence, and big data analytics, could be integrated into mobile money platforms to improve financial inclusion. For instance, blockchain technology can provide secure and transparent transaction records, which can build trust in financial services among rural populations. AI and big data analytics can be used to develop alternative credit scoring systems that assess creditworthiness based on mobile transaction histories, enabling more rural women to access credit.

Expanding mobile money infrastructure in remote areas

While mobile money has made significant strides in expanding financial inclusion, there is still a need to improve infrastructure in remote and underserved areas. Governments and telecom companies should collaborate to increase the reach of mobile networks, ensuring that rural women in the most remote areas can access mobile money services. Additionally, expanding the number of mobile money agents in rural areas will make it easier for women to conduct transactions and access financial services.

Strengthening regulatory frameworks

Regulatory frameworks play a crucial role in the success of mobile money services. Policymakers in Nigeria should continue to develop and strengthen regulations that promote financial inclusion while ensuring the security and stability of mobile money platforms. This includes implementing consumer protection measures to prevent fraud and abuse, as well as creating policies that encourage competition among mobile money providers to drive innovation and reduce costs for users. Additionally, regulations should focus on enhancing interoperability between different mobile money platforms to ensure seamless transactions across networks.

Integrating mobile money with agricultural extension services

To maximize the impact of mobile money on rural women agripreneurs, there is an opportunity to integrate mobile money services with agricultural extension programs. By linking mobile money with agricultural advisory services, weather forecasts, and market information, rural women can make more informed decisions about their farming activities. This integration can also facilitate the delivery of subsidies and government support programs directly to the mobile wallets of women farmers, ensuring that they receive timely assistance.

Policy Recommendations

1. **Promote digital financial literacy programs:** Governments and development organizations should invest in digital financial literacy programs tailored to the needs of rural women. These programs should focus on educating women about the benefits

of mobile money and providing practical training on how to use mobile money platforms.

2. **Enhance partnerships between mobile money providers and agricultural cooperatives:** Mobile money providers should partner with agricultural cooperatives and microfinance institutions to offer tailored financial products that meet the needs of rural women agripreneurs. These partnerships can help bridge the gap between mobile money services and agricultural finance.
3. **Address cultural and gender barriers:** Policymakers should work with community leaders and women's organizations to address cultural and gender barriers that limit women's access to mobile money services. This may involve promoting gender-sensitive policies that empower women to make financial decisions and participate in the formal economy.
4. **Improve network infrastructure in rural areas:** To enhance the effectiveness of mobile money services, governments and mobile network providers should invest in improving network coverage and infrastructure in rural areas. This includes expanding mobile network reach, ensuring reliable electricity supply, and providing access to mobile money agents.
5. **Develop mobile money products for agricultural insurance:** Mobile money providers should work with insurance companies to develop affordable and accessible microinsurance products for rural women agripreneurs. These products should be tailored to the specific risks faced by women in agriculture and should be integrated with mobile money platforms to facilitate easy access.

CONCLUSION

Mobile money has the potential to transform the financial landscape for rural women agripreneurs in Nigeria. By providing access to credit, savings, insurance, and other financial services, mobile money can empower women to invest in their agricultural businesses, improve their livelihoods, and achieve greater financial independence. However, challenges such as digital literacy, cultural barriers, and infrastructure limitations must be addressed to ensure that the benefits of mobile money are fully realized. Through targeted policy interventions and strategic partnerships, mobile money can become a powerful tool for enhancing the financial empowerment of rural women agripreneurs in Nigeria.

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