

# The Impact of Fintech on Traditional Financial Banking in West Africa

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## Abstract:

Fintech - the convergence of finance and technology, has emerged as a transformative force reshaping the global financial landscape. While its influence is evident across the world, its impact on traditional financial systems in less developed countries remains a subject of exploration and analysis. This paper aims to investigate the multifaceted effects of Fintech on traditional financial systems in less developed countries, examining both the opportunities and challenges it presents. Through an examination of various case studies and empirical evidence, this paper seeks to provide insights into the evolving dynamics of financial inclusion, innovation, regulation, and economic growth spurred by Fintech in less developed countries.

**Keywords:** Fintech, Traditional Bank, West Africa , E-Wallet.

## 1. Introduction

Fintech - a portmanteau of "Financial Technology" represents a transformative force reshaping the traditional banking landscape particularly in less developed countries across Africa. While the roots of Fintech can be traced back to the late 20<sup>th</sup> century, its proliferation and impact have accelerated significantly in recent years, catalyzed by advancements in digital technologies and changing consumer behaviors. In Africa, where traditional banking systems face unique challenges of accessibility, inclusivity, and efficiency, Fintech emerges as a promising solution to address these issues and drive socioeconomic development. This paper seeks to explore the multifaceted impact of Fintech specifically on traditional banking systems in less developed countries in Africa, examining both the opportunities and challenges it presents in the context of financial inclusion, innovation, regulation, and economic growth. Through an analysis of case studies, empirical evidence, and industry insights, this paper aims to provide a nuanced understanding of how Fintech is reshaping the African banking landscape and influencing the broader financial ecosystem in the region.

## 1. Problem and Purpose of the Study

- i. The key motivating factors for the study are that the use of electronic payment technologies have given rise to conflicting views concerning the performance of banks with regards to profitability, risk exposure and expected returns. For example, many deposit money banks in developing countries have witnessed a surge in profit making without commensurate sustainable growth. The implementation of electronic payment technologies has however reduced the returns of bank stakeholders and heightened their risk exposure.
- ii. Secondly, adopting electronic payment technologies requires the modification of business models by Nigerian banks – giving rise to higher operational costs during the transition phase. To compete with Fintech companies in the country, several deposit money banks have made significant investments

towards supporting the advancement of electronic payment technologies. This highlights the growing disruptive influence of Fintech firms on traditional banking practices and emphasizes the need to examine the contributions and risks of Fintech in banking services, considering the limited research available on this subject matter. Studies on Fintech in Nigeria have largely focused on its adoption, challenges, and benefits for financial inclusion. However, there are still significant research gaps in the understanding of the impact of Fintech on the performance of banks in developing countries. This study examines Fintech in Nigeria and its impact on the performance of banks in the country.

## 2. The Landscape of Traditional Financial Systems in Developing Countries

Developing countries often grapple with inadequacies in their traditional financial systems, characterized by limited access to banking services, low levels of financial literacy and cumbersome regulatory frameworks. Informal financial channels such as community-based savings groups and microfinance institutions have historically filled the gaps left by formal banking institutions. However, these systems often lack scalability, transparency and security hindering broader financial inclusion and economic progress.

- i. **Increased Competition:** Fintech companies have introduced innovative financial services that compete directly with traditional banks. Since these digital solutions often offer greater convenience, speed, and lower costs, traditional banks are challenged to modernize and improve their services to stay relevant.
- ii. **Enhanced Financial Inclusion:** Fintech products have been crucial in providing financial services to unbanked or underbanked populations by leveraging the increased prevalence of smartphones and internet connectivity.
- iii. **Cost Reduction:** Fintech solutions can dramatically reduce transaction costs. For example, remittances which are a significant financial flow in Africa can be done at a fraction of the cost compared to traditional banking channels.
- iv. **Product Innovation:** Fintech has spurred product innovation within traditional banks as they seek to replicate or partner with Fintech companies to offer similar digital financial products and services.
- v. **Customer Expectation Shifts:** The existence of Fintech has changed customer expectations leading them to expect faster, more accessible and more user-friendly services, and forcing banks to adapt or face losing market share.
- vi. **Pressure on Revenue and Profit Margins:** With Fintech companies often charging lower fees, traditional banks may experience a decrease in their revenue streams and a compression of profit margins from some services.
- vii. **Regulatory Challenges:** The rise of Fintech has also introduced new regulatory challenges as traditional banking regulations may not be well-suited to the digital nature of Fintech services.

## 3. Fintech Solutions for Financial Inclusion

Fintech innovations have revolutionized the provision of financial services in less developed countries particularly by leveraging mobile technology and digital platforms. Mobile money services pioneered by initiatives such as M-Pesa in Kenya have empowered millions of individuals previously excluded from the formal financial sector to conduct transactions, save money and access credit. Moreover, peer-to-peer

lending platforms and crowdfunding mechanisms have emerged as alternative sources of financing for entrepreneurs and small businesses, circumventing traditional banking channels.

### **Key Points:**

#### **a) Financial Inclusion through Mobile Money:**

Mobile money services, exemplified by Kenya's M-Pesa, have revolutionized financial inclusion in many less developed countries. M-Pesa allows users to send, receive, and store money using basic mobile phones, bypassing the need for traditional bank accounts. In countries like Tanzania and Bangladesh, services like Tigo Pesa and bKash have replicated M-Pesa's success, providing millions of unbanked individuals with access to financial services.

#### **b) Microfinance and Peer-to-Peer Lending Platforms:**

Microfinance institutions (MFIs) have long played a crucial role in providing small loans to entrepreneurs and individuals lacking access to traditional banking services. Platforms like Kiva and Zidisha enable peer-to-peer lending, connecting lenders directly with borrowers, often in remote or underserved regions.

For example, Zidisha facilitates microloans to entrepreneurs in countries like Kenya, Ghana, and Indonesia, enabling them to start or expand small businesses and improve livelihoods.

#### **c) Blockchain Technology for Transparent Transactions:**

Blockchain technology holds promise for enhancing transparency and security in financial transactions, particularly in regions with weak institutional frameworks and high levels of corruption.

Projects like BitPesa leverage blockchain for cross-border payments and remittances, reducing costs and processing times for individuals and businesses in Africa and beyond.

#### **d) Digital Wallets and Payment Platforms:**

Digital wallets and payment platforms streamline transactions and reduce reliance on cash, promoting financial inclusion and efficiency. In India, the government's Unified Payments Interface (UPI) has facilitated seamless peer-to-peer and merchant payments through mobile devices. Similarly, platforms like Paytm in India and GCash in the Philippines offer digital wallet services, allowing users to pay bills, transfer money, and access a range of financial products from their smartphones.

#### **e) Regulatory Sandboxes and Policy Innovation:**

Regulatory sandboxes provide a controlled environment for Fintech firms to test innovative products and services while ensuring compliance with existing regulations. Countries like Singapore, Malaysia, and the United Arab Emirates have established regulatory sandboxes to foster Fintech innovation. For instance, Malaysia's Regulatory Sandbox Framework allows Fintech start-ups to experiment with new technologies and business models under the supervision of the central bank, facilitating the development of innovative solutions tailored to local needs.

#### **f) Digital Credit Scoring and Alternative Credit Models:**

Fintech firms are leveraging alternative data sources and machine learning algorithms to assess credit worthiness and extend loans to underserved populations. In markets like Kenya and Nigeria, platforms like Branch and Tala use smartphone data to evaluate borrowers' credit risk and disburse loans instantly. These platforms enable individuals without traditional credit histories to access affordable credit for emergencies, education, or business ventures, thereby promoting financial resilience and economic empowerment.

### **g) Educational Initiatives and Digital Literacy Programs:**

To bridge the digital divide and empower consumers, educational initiatives and digital literacy programs are essential. Organizations like the World Bank (WB) and the Alliance for Financial Inclusion (AFI) support initiatives that promote financial literacy and digital skills training in less developed countries. In Rwanda, the Financial Sector Development Program (FSDP) includes components focused on improving financial literacy and promoting digital payments, helping citizens navigate the evolving financial landscape and make informed financial decisions.

### **4. Challenges and Considerations**

Despite the potential benefits of Fintech, its implementation in less developed countries is not without challenges. Issues such as inadequate infrastructure, cybersecurity risks, regulatory uncertainty, and disparities in digital literacy pose significant hurdles to widespread adoption. Moreover, the rapid pace of technological change exacerbates the digital divide, leaving marginalized populations further marginalized in the absence of comprehensive strategies for inclusive Fintech adoption.

### **5. Key Challenges Faced By Traditional Financial Systems in Less Developed Countries:**

**Limited Access to Banking Services:** In many less developed countries, large segments of the population lack access to basic banking services such as savings accounts, loans, and insurance products; geographic barriers, sparse branch networks, and high account maintenance fees contribute to financial exclusion, particularly in rural and remote areas.

**Low Levels of Financial Literacy:** A significant portion of the population in less developed countries lacks basic financial literacy skills, including knowledge of budgeting, saving, investing, and managing debt. This lack of awareness hampers individuals' ability to make informed financial decisions and effectively navigate the financial system.

**Inadequate Infrastructure:** Weak physical infrastructure, including unreliable electricity, limited internet connectivity, and poor transportation networks, constrains the delivery of financial services in many less developed countries. Lack of infrastructure impedes the expansion of banking networks and hinders the adoption of digital financial solutions.

**High Transaction Costs:** Traditional banking services often entail high transaction costs, including fees for account maintenance, ATM withdrawals, and remittances. These costs disproportionately affect low-income individuals and small businesses, discouraging them from engaging with formal financial institutions.

**Limited Product Offerings:** Traditional financial institutions in less developed countries may offer a limited range of financial products and services, catering primarily to urban and affluent customers. This leaves underserved populations, including women, youth, and rural communities, without access to tailored financial solutions that meet their unique needs.

**Informal Financial Practices:** In the absence of formal banking services, many individuals in less developed countries rely on informal financial mechanisms such as rotating savings and credit associations (ROSCAs), money lenders, and community-based savings groups. While these informal practices provide a safety net for some, they often lack transparency, consumer protections, and scalability.

**Regulatory Constraints:** Complex and cumbersome regulatory frameworks in less developed countries may deter financial institutions from expanding their operations or introducing innovative products and services. Regulatory barriers, including licensing requirements, capital adequacy standards, and compliance obligations, pose challenges for both incumbents and new entrants in the financial sector.

## **6. Regulatory Frameworks and Policy Implications**

Effective regulation is crucial to harnessing the benefits of Fintech while mitigating associated risks. Governments and regulatory authorities in less developed countries face the formidable task of striking a balance between promoting innovation and safeguarding consumer interests. Regulatory frameworks must be agile, adaptable, and conducive to fostering a conducive environment for Fintech startups and incumbents alike, encouraging competition, innovation, and consumer protection.

## **7. Research Methodology**

This study utilizes bank-level data and financial market data from the World Bank Economic Indicators (WBEI) for each country. Fintech, specifically mobile money activities data, is retrieved from the International Monetary Fund's Financial Access Survey (IMFFAD) data. This study covers the period from 2015 to 2023 to ensure data completeness and consistent representation across countries and over time. The population consists of banks in the West Africa region. However, this study is limited by the availability of data. The study was only able to obtain data for a small but representative, sample of banks in West Africa. This means that our findings may not be generalized to all West African countries. Furthermore, it is acknowledged that the sample for the study is not perfect and that it is possible that survivorship bias may have affected results the results of the study given that banks that were no longer in operation would not have been included in our sample. Attempts were made to mitigate survivorship bias by collecting data from multiple sources. However, the study is ultimately limited by the availability of data. Other researchers are encouraged to make use of proprietary data to address survivorship bias in more detail in future studies. The sample comprises 56 commercial banks from 19 economies, with Nigeria, Ghana, and Kenya having a larger representation than those of relatively underdeveloped states such as Uganda, Niger, and Eswatini.

## **8. Limitations of the study**

Although the study provides valuable insights into the impact of Fintech on traditional financial banking in West Africa, it is important to acknowledge some of its limitations. The study is mainly limited by the availability of data. Only data for a small but representative sample of banks in Sub-Saharan Africa were obtained. So the findings may not be generalized to all the population of banks in West African region. This limitation with data may also give rise to survivorship bias as the sample selection was based on availability of data, and it excluded potentially failed or acquired banks. Thus the findings of the study should be interpreted with caution as they may be skewed toward successful banks and Fintech companies, limiting the generalizability of the results to all West Africa. Notwithstanding this limitation, it is believed that the findings of the study are still valuable. The study highlights important evidence which is the impact of Fintech on traditional financial banking in West Africa which carry important implications for policy and practice. Nevertheless, future research should aim to collect more data from a wider range of banks in West Africa to provide a more comprehensive and generalizable understanding of the impact of Fintech on traditional financial banking in the region. Future research could explore the extent to which regulatory frameworks in West African countries facilitate or hinder the growth and adoption of Fintech, and how this affects bank funding and economic growth.

## **9. Conclusion**

In conclusion, Fintech represents a paradigm shift in the way financial services are accessed, delivered, and regulated in less developed countries. While its transformative potential is undeniable, realizing its full benefits requires concerted efforts from policymakers, regulators, financial institutions, and technology providers. By fostering an enabling ecosystem that embraces innovation, fosters collaboration, and prioritizes financial inclusion, less developed countries can harness the power of Fintech to propel economic growth, empower communities, and build a more inclusive financial future. While the roots of Fintech can be traced back to the late 20th century, its proliferation and impact have accelerated significantly in recent years, catalyzed by advancements in digital technologies and changing consumer behaviors. In less developed countries, where traditional financial systems face challenges of accessibility, inclusivity, and efficiency, Fintech holds the promise of addressing these issues and driving socioeconomic development.

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