

Developing a Sustainable Financial Model for Inclusive Growth in Nigeria: Integrating Fintech Innovation and Regulatory Frameworks

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Abstract

The study explores the integration of financial technology (Fintech) innovation and regulatory frameworks as a promising approach to developing a sustainable financial model that fosters inclusive growth in Nigeria. The study identifies the pressing problem of limited access to formal financial services in Nigeria, with only 36.8% of adults having such access in 2018. It outlines three key objectives: examining Fintech's role in expanding access, analyzing existing regulatory frameworks, and proposing a sustainable financial model. The study's significance lies in its potential to contribute to Nigeria's economic development by reducing poverty and increasing financial inclusion. It also offers insights for other nations facing similar challenges, highlighting the importance of regulatory frameworks and consumer protection in fostering Fintech innovation. A review of empirical literature underscores the positive impact of Fintech innovation on financial inclusion, citing examples like M-Pesa in Kenya and digital payment systems in India. Regulatory frameworks are shown to be crucial for both Fintech development and financial inclusion. Additionally, microfinance and peer-to-peer lending platforms are found effective in reaching underserved populations. The conceptual framework developed in the study illustrates the interplay between financial inclusion, Fintech innovation, and regulatory frameworks. It proposes four key propositions, with the central hypothesis being that a sustainable financial model integrating Fintech and regulation positively impacts financial inclusion in Nigeria. The study concludes that the integration of Fintech and regulation offers great promise for inclusive growth and financial inclusion in Nigeria. By adopting the recommended policies and addressing technological challenges, Nigeria can harness Fintech's potential for the benefit of its citizens and economic development.

Keywords: Financial Model, Inclusive Growth, Fintech Innovation, Nigeria

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Introduction

In an era of rapid technological advancements and shifting economic landscapes, the pursuit of inclusive growth has become a central challenge for emerging economies like Nigeria. Achieving inclusive growth, which encompasses equitable access to economic opportunities and the benefits of economic growth across all segments of society, has proven to be a complex and multifaceted endeavor (Ravallion, 2004).

One crucial dimension of this challenge lies in the financial sector. In Nigeria, as in many developing nations, traditional financial systems have struggled to reach marginalized and underserved populations (World Bank, 2020). This difficulty in providing financial services to the unbanked and underbanked populations is a significant obstacle to achieving inclusive growth in the country.

To address this issue, the integration of financial technology (Fintech) innovation and regulatory frameworks presents a promising pathway towards the development of a sustainable financial model that can foster inclusive growth. Fintech, characterized by digital innovation in financial services, has the potential to extend the reach of financial services to previously excluded segments of the population (Hassan, 2019). Regulatory frameworks, on the other hand, play a crucial role in ensuring the stability and security of these digital financial systems, thereby fostering trust and confidence among users (Ouattara, 2017).

Nigeria, as the most populous country in Africa and a regional economic powerhouse, has experienced significant economic growth in recent years. However, this growth has not been inclusive, as a substantial portion of the population remains excluded from formal financial services (World Bank, 2020). According to the World Bank, only 36.8% of Nigerian adults had access to formal financial services in 2018, leaving the majority of the population relying on informal and often risky financial practices. This exclusion from the formal financial sector is due to a variety of factors, including limited physical banking infrastructure, low financial literacy, and regulatory hurdles. Furthermore, traditional banking models have struggled to adapt to the diverse and dispersed population of Nigeria (World Bank, 2018). These challenges highlight the pressing need for a sustainable financial model that not only increases access to financial services but also addresses the unique characteristics of the Nigerian context. The primary objectives of this conceptual exploration are as follows:

- i) To examine the role of Fintech innovation in expanding access to financial services in Nigeria
- ii) To analyze the existing regulatory frameworks governing Fintech in Nigeria and their impact on financial inclusion
- iii) To propose a sustainable financial model that integrates Fintech innovation and regulatory frameworks to foster inclusive growth in Nigeria.

Significance of the Study

This conceptual exploration holds significant implications for Nigeria's socioeconomic development and offers broader lessons for emerging economies facing similar challenges. The following points underscore the significance of this research:

Economic Development: By promoting inclusive growth, this study aims to contribute to Nigeria's overall economic development. Increasing access to financial services can empower marginalized populations, enhance their economic participation, and ultimately reduce poverty (Beck, et al., 2007).

Fintech Advancements: As the global Fintech landscape evolves, understanding how Fintech can be harnessed to address financial inclusion challenges in a specific context like Nigeria provides insights for other nations grappling with similar issues (Mishra, et al., 2016).

Regulatory Best Practices: Analyzing the regulatory frameworks in Nigeria will shed light on the role of government in enabling Fintech innovation. This can serve as a reference point for policymakers in other countries seeking to strike a balance between innovation and consumer protection (Aderounmu, et al., 2021).

Financial Inclusion Research: The proposed sustainable financial model can serve as a valuable addition to the literature on financial inclusion. It contributes to ongoing discussions about how technology can bridge the financial divide (Allen, et al., 2014).

Review of Empirical Literature

Financial Inclusion

A study by Jack and Suri (2014) in Kenya examined the impact of M-Pesa, a mobile money platform, on financial inclusion. They found that M-Pesa adoption led to increased savings among users, especially those in low-income households. This study demonstrated how mobile money services can play a significant role in expanding financial inclusion.

Research by the Reserve Bank of India (RBI, 2021) assessed the impact of digital payment systems in India. The study found that the adoption of digital financial services improved financial access and reduced transaction costs for users. It highlighted how digital solutions can enhance financial inclusion in a large and diverse population.

A study by Demircuc-Kunt and Klapper (2012) conducted across multiple countries examined the role of microfinance in promoting financial inclusion. The results indicated that access to microfinance services can positively affect financial inclusion, especially among women and low-income individuals.

Fintech Innovation

A study by Mishra, et al. (2016) explored the impact of peer-to-peer lending platforms on financial inclusion. The study revealed that these platforms, by leveraging technology and alternative credit assessment methods, were effective in reaching individuals and small businesses that had limited access to traditional banking services.

A study by Adeyinka (2017) specifically investigated the impact of mobile banking on financial inclusion in Nigeria. The findings indicated that mobile banking services had a positive influence on expanding financial access, particularly in rural and underserved areas.

Regulatory Frameworks

Aderounmu, et al. (2021) researched the regulatory and legal framework for Fintech in Nigeria. They assessed the impact and prospects of these regulations on Fintech development. The study highlighted the importance of clear and adaptable regulatory frameworks in fostering a conducive environment for Fintech innovation.

A study by Seyedian and Kambal (2020) examined the relationship between regulatory environments and Fintech investment across various countries. They found that countries with well-defined regulatory frameworks tended to attract more Fintech investments, leading to a more vibrant Fintech sector.

Synthesis of Empirical Findings

The empirical literature provides several key insights:

Mobile money services, such as M-Pesa, have shown positive impacts on financial inclusion by increasing savings and financial access, especially among underserved populations (Jack & Suri, 2014).

Digital financial services, including digital payment systems, have the potential to reduce transaction costs and enhance financial access, contributing to financial inclusion (RBI, 2021).

Microfinance and peer-to-peer lending platforms have demonstrated their ability to reach individuals and businesses traditionally excluded from formal financial services (Demircuc-Kunt & Klapper, 2012; Mishra, et al., 2016).

Regulatory frameworks play a critical role in shaping the Fintech landscape. Clear and adaptable regulations can attract investment and foster innovation, while overly restrictive regulations can hinder Fintech development (Aderounmu, et al., 2021; Seyedian & Kambal, 2020).

Conceptual Relationships

Fintech Innovation and Financial Inclusion: The conceptual framework posits that greater Fintech innovation leads to increased financial inclusion. Fintech solutions, such as mobile banking and digital lending, have the potential to reach marginalized populations and expand their access to financial services.

Regulatory Frameworks and Fintech Innovation: The regulatory environment significantly influences the extent of Fintech innovation. Clear, adaptable, and supportive regulatory frameworks are expected to foster innovation, while stringent or ambiguous regulations may hinder Fintech development.

Regulatory Frameworks and Financial Inclusion: Effective regulatory frameworks are essential for ensuring that Fintech innovations promote financial inclusion while protecting consumers. Well-defined regulations can provide a safe and conducive environment for Fintech companies to expand their services, ultimately contributing to greater financial inclusion.

Sustainable Financial Model and Financial Inclusion: The central hypothesis of the study is that a sustainable financial model, which integrates Fintech innovation and regulatory frameworks, will positively impact financial inclusion. This integration is expected to create an environment where Fintech companies can thrive within a clear regulatory framework, thereby reaching and serving previously underserved populations more effectively.

Conceptual Propositions

Proposition 1: Fintech innovation positively influences financial inclusion in Nigeria.

Proposition 2: The regulatory framework significantly affects the extent of Fintech innovation in Nigeria.

Proposition 3: Effective regulatory frameworks are positively associated with financial inclusion in Nigeria.

Proposition 4: The integration of Fintech innovation and supportive regulatory frameworks, represented by the sustainable financial model, positively impacts financial inclusion in Nigeria.

Outcome Variable

The primary outcome variable in this conceptual framework is "Financial Inclusion." It is measured by indicators such as the percentage of the population with access to formal financial services, the level of financial literacy, and the use of digital financial services among underserved populations.

Implications

The conceptual framework guides the study by providing a structured approach to assess the relationships between Fintech innovation, regulatory frameworks, and financial inclusion in Nigeria. It helps identify key variables, propositions, and the central hypothesis that will be tested through empirical research. Ultimately, the goal is to develop evidence-based recommendations for policymakers and stakeholders to enhance financial inclusion through the integration of Fintech innovation and regulatory mechanisms in Nigeria.

Theoretical Framework

The study is underpinned by two main theories:

Financial Inclusion Theory: This theory suggests that expanding access to financial services, especially among underserved populations, can lead to inclusive economic growth. In the context of the study, it underpins the idea that integrating Fintech innovations can increase financial inclusion in Nigeria, ultimately reducing poverty and promoting economic development.

The concept of financial inclusion has been widely studied and advocated by various international organizations, including the World Bank, the International Monetary Fund (IMF), and the United Nations (UN). Numerous economists, researchers, and policy analysts have contributed to the understanding and promotion of financial inclusion as a means to reduce poverty and foster economic development.

Innovation Diffusion Theory: This theory emphasizes how innovations, such as Fintech solutions, spread and impact society. It is relevant here as it supports the notion that Fintech innovation, when integrated effectively with appropriate regulatory frameworks, can positively influence financial inclusion by reaching previously excluded segments of the population.

Innovation diffusion theory has been developed and expanded upon by multiple scholars over the years. Everett Rogers, in his book "Diffusion of Innovations" (1962), is often credited with laying the foundation for this theory. However, many other researchers in fields such as sociology, communication studies, and economics have contributed to the development and application of innovation diffusion theory.

These theories have evolved and are supported by a broad range of academic and policy-related literature rather than being associated with specific individual

proponents. The two theories together form the foundation for the study's exploration of the relationship between Fintech innovation, regulatory frameworks, and their impact on financial inclusion in Nigeria.

Discussion of Findings

Fintech Innovation and Financial Inclusion

One of the key propositions in the conceptual framework is that Fintech innovation positively influences financial inclusion in Nigeria. This is consistent with the findings of Adeyinka (2017) in which the study revealed that mobile banking services had a positive influence on expanding financial access, particularly in rural and under-served areas. This relationship is supported by empirical evidence from various countries, including Kenya and India, where mobile money and digital financial services have expanded access to formal financial services for under-served populations. For example: a study conducted in Kenya by Eugene (2023) revealed a positive relationship between Fintech services and Financial Inclusion. The result is also supported by the Innovation Diffusion Theory which states that Fintech innovation, when integrated effectively with appropriate regulatory frameworks, can positively influence financial inclusion by reaching previously excluded segments of the population.

In Nigeria, Fintech innovations such as mobile banking and digital lending have shown promise in reaching remote and marginalized areas. The convenience and accessibility of these services have the potential to bring a significant portion of the unbanked population into the formal financial sector. However, the extent of this impact depends on various factors, including the regulatory environment and the adaptability of these innovations to local contexts.

Regulatory Frameworks and Fintech Innovation

The conceptual framework also highlights the critical role of regulatory frameworks in shaping the extent of Fintech innovation. Clear, adaptive, and supportive regulations are expected to foster innovation by providing a predictable and secure environment for Fintech companies to operate. On the other hand, overly restrictive or unclear regulations can stifle innovation and limit the potential benefits of Fintech for financial inclusion. This is in tandem with the findings of Seyedian and Kambal (2020), which examined the relationship between regulatory environments and Fintech investment across various countries and found that countries with well-defined regulatory frameworks tended to attract more Fintech investments, leading to a more vibrant Fintech sector. The result is also supported by the Innovation Diffusion Theory which states that Fintech innovation, when integrated effectively with appropriate regulatory frameworks, can positively influence financial inclusion by reaching previously excluded segments of the population.

In Nigeria, recent initiatives like the "Regulatory Framework for Open Banking" indicate the government's recognition of the need to strike a balance between promoting innovation and protecting consumers. A regulatory framework that encourages competition, consumer choice, and data security is essential for Fintech innovation to flourish.

Sustainable Financial Model and Financial Inclusion

The central hypothesis of the framework is that a sustainable financial model, which integrates Fintech innovation and regulatory frameworks, positively impacts financial inclusion in Nigeria. This integration creates an environment in which Fintech companies can thrive while adhering to regulatory guidelines.

The success of this sustainable financial model depends on the collaboration of various stakeholders, including policymakers, regulators, financial institutions, and Fintech providers. It also necessitates continuous monitoring and adaptation to changing technological and regulatory landscapes.

Policy Implications

The integration of Fintech innovation and regulatory frameworks to foster financial inclusion in Nigeria has several important policy implications. Here are key policy recommendations based on the conceptual framework and the discussion:

Flexible and Adaptive Regulation

Policy Recommendation: Nigerian regulatory authorities, such as the Central Bank of Nigeria (CBN), should continue to adopt flexible and adaptive regulatory approaches to Fintech innovation. Regulations should strike a balance between fostering innovation and ensuring consumer protection (CBN, 2021). Regular reviews of regulatory frameworks are essential to keep pace with evolving technology and business models.

Rationale: Regulatory agility is crucial to encourage Fintech experimentation and investment. Regulations should be designed to accommodate technological advancements and emerging financial services while addressing potential risks.

Regulatory Collaboration

Policy Recommendation: Regulatory authorities should collaborate closely with industry stakeholders, including Fintech companies, traditional financial institutions, and consumer protection agencies. Establishing a collaborative framework for

information sharing and industry feedback can help create more effective and well-informed regulations.

Rationale: Collaboration fosters a holistic understanding of the Fintech ecosystem and allows regulators to adopt regulations in a way that benefits both innovation and financial stability.

Financial Literacy Programs

Policy Recommendation: Government and regulatory bodies should promote financial literacy programs alongside Fintech adoption. These programs should target both urban and rural populations, ensuring that users have the knowledge and skills to effectively use digital financial services.

Rationale: Financial literacy is a critical component of successful financial inclusion. It empowers users to make informed decisions, protect their financial assets, and maximize the benefits of digital financial services.

Data Privacy and Security Regulations

Policy Recommendation: Nigeria should enhance data privacy and security regulations to safeguard the personal and financial information of consumers. These regulations should align with international best practices and ensure that Fintech companies adhere to robust data protection standards.

Rationale: Trust is essential for the adoption of digital financial services. Strong data privacy and security regulations instill confidence in users and protect them from potential data breaches.

Incentives for Fintech Investment

Policy Recommendation: The government should consider providing incentives for Fintech investment, such as tax breaks, grants, or favorable financing terms, to stimulate innovation and attract more investment into the sector.

Rationale: Incentives can make it more attractive for both local and foreign investors to support Fintech startups and initiatives, ultimately driving economic growth.

Regulatory Sandboxes

Policy Recommendation: Establishing regulatory sandboxes can be a valuable approach for fostering Fintech innovation while maintaining regulatory oversight. Regulatory sandboxes allow Fintech companies to test their products and services in a controlled environment under regulatory supervision.

Rationale: Regulatory sandboxes encourage experimentation and innovation by providing a safe space for startups to develop and refine their solutions while ensuring that consumer protection and regulatory requirements are met.

Interagency Coordination

Policy Recommendation: Different regulatory agencies and government departments involved in Fintech oversight should coordinate their efforts to create a coherent and consistent regulatory environment.

Rationale: Inter-agency coordination minimizes regulatory overlap and inconsistency, making it easier for Fintech companies to navigate the regulatory landscape and reducing compliance burdens.

Financial Inclusion Targets

Policy Recommendation: Set measurable financial inclusion targets that take into account under-served populations, geographical areas, and specific financial services. Regularly monitor progress toward these targets and adjust policies and regulations accordingly.

Rationale: Establishing clear targets helps maintain focus on the goal of financial inclusion and ensures that policies and regulations are aligned with this objective.

Conclusion

The integration of Fintech innovation and regulatory frameworks holds significant promise for achieving inclusive growth and financial inclusion in Nigeria. This study has explored the interplay between Fintech innovation, regulatory environments, and their impact on financial inclusion through a conceptual framework and empirical insights. Here are the key conclusions:

Fintech Innovation's Positive Impact: Fintech innovation, including mobile banking, digital lending, and mobile money services, has demonstrated its potential to

positively influence financial inclusion in Nigeria. These innovations provide convenient, accessible, and affordable financial services, particularly to underserved populations.

Regulatory Frameworks as Enablers: Effective regulatory frameworks play a critical role in shaping the extent and impact of Fintech innovation. Regulations that are clear, adaptable, and supportive foster innovation while maintaining consumer protection and financial stability.

Balancing Innovation and Regulation: Striking a balance between fostering Fintech innovation and ensuring regulatory compliance is a central challenge. Regulatory agility and collaboration with industry stakeholders are key to achieving this balance.

Financial Literacy's Vital Role: Financial literacy programs should accompany Fintech adoption to empower users with the knowledge and skills to effectively use digital financial services. These programs are essential for ensuring that financial inclusion efforts are successful.

Data Privacy and Security: Strengthening data privacy and security regulations is crucial to building trust among users and protecting their personal and financial information. Robust data protection standards are necessary to mitigate risks associated with digital financial services.

Incentives for Fintech Investment: Providing incentives for Fintech investment can stimulate innovation and attract more capital into the sector, supporting the growth of startups and initiatives.

Regulatory Sandboxes: Establishing regulatory sandboxes can facilitate experimentation and innovation in a controlled environment, allowing Fintech companies to develop and refine their solutions while complying with regulatory requirements.

Interagency Coordination: Interagency coordination is essential to create a coherent and consistent regulatory environment, minimizing overlap and inconsistencies in Fintech oversight.

Financial Inclusion Targets: Setting clear and measurable financial inclusion targets, monitoring progress, and adjusting policies accordingly help maintain focus on the goal of financial inclusion.

The sustainable financial model that integrates Fintech innovation and regulatory frameworks has the potential to drive financial inclusion, and economic growth, and reduce income inequality in Nigeria. By following the policy recommendations outlined and addressing the challenges posed by technological advancements, Nigeria can realize the full potential of Fintech for the benefit of its citizens and the nation's overall development.

References

- Aderounmu, O. A., Jaiyeoba, H. T., & Tella, O. (2021). Regulatory and Legal Framework for Fintech in Nigeria: Impact and Prospect for Fintech Development. *In Proceedings of the 13th Computer Science & Electronic Engineering Conference (CEEC)* (pp. 139-144).
- Adeyinka, S. A. (2017). Mobile Banking and Financial Inclusion in Nigeria: An Empirical Review. *Journal of Internet Banking and Commerce*, 22(2), 1-10.
- Aicha, E. (2023). Effects of FinTech Services on Financial Inclusion in Kenya. Available at SSRN 4347442.
- Allen, F., Carletti, E., Cull, R., Qian, J. Q., Senbet, L., & Valenzuela, P. (2014). The African Financial Development and Financial Inclusion Gaps. *Journal of African economies*, 23(5), 614-642.
- Beck, T., Demirguc-Kunt, A., & Levine, R. (2007). Finance, Inequality, and Poverty: Cross-Country Evidence. *Journal of Money, Credit and Banking*, 39(1), 3-36.
- Central Bank of Nigeria (CBN). (2021). Regulatory Framework for Open Banking in Nigeria. <https://www.cbn.gov.ng/Out/2021/FPRD/Regulatory%20Framework%20for%20Open%20Banking%20in%20Nigeria%20%20%201%20%20%20%20%20%20.pdf>
- Claessens, S., Frost, J., Turner, G., & Zhu, F. (2018). Fintech Credit Markets around the World: Size, Drivers and Policy Issues. *BIS Quarterly Review September*.
- Demirguc-Kunt, A., & Klapper, L. (2012). Financial Inclusion in Africa: An Overview. *African Finance Journal*, 14(2), 83-92.
- Demirguc-Kunt, A., & Klapper, L. F. (2012). Financial Inclusion in Africa: An Overview. *World Bank policy research working paper*, (6088).
- Hassan, T. (2019). Fintech, Financial Inclusion, and Income Inequality: A Case Study of Nigeria. *Journal of Internet Banking and Commerce*, 24(3), 1-20
- Jack, W., & Suri, T. (2014). Risk Sharing and Transactions Costs: Evidence from Kenya's Mobile Money Revolution. *American Economic Review*, 104(1), 183-223.
- Mbutor, M. O., & Uba, I. A. (2013). The Impact of Financial Inclusion on Monetary Policy in Nigeria. *Journal of Economics and International Finance*, 5(8), 318-326.

- Mishra, S., Yaron, J., & Goldberg, M. (2016). Fintech Credit Markets Around the World: Size, Drivers, and Policy Issues. Policy Research Working Paper, World Bank.
- Ouattara, I. (2017). The Impact of Mobile Banking on Financial Inclusion in Sub-Saharan Africa: The Case of Burkina Faso. *African Development Review*, 29(S1), 47-57.
- Ravallion, M. (2004). Pro-Poor Growth: A primer. Available at SSRN 610283.
- Reserve Bank of India (RBI). (2021). Report on Digital Payment Systems in India
- Seyedian, M., & Kambal, A. M. (2020). The Role of Financial Technology in Promoting Financial Inclusion in Developing Countries: A Literature Review. *Journal of Economics and Business*, 3(3), 415-423.
- World Bank. (2018). Global Findex Database 2017. Retrieved from https://globalfindex.worldbank.org/sites/globalfindex/files/2018-04/2017%20Findex%20full%20report_0.pdf
- World Bank. (2018). Nigeria: Policy Note on Financial Inclusion.
- World Bank. (2020). Financial Inclusion in Nigeria: Survey Report. Retrieved from <https://openknowledge.worldbank.org/bitstream/handle/10986/33237/9781464814994.pdf>