

The Impact of Financial Technology on Achieving Financial Inclusion Through Digital Transformation

أثر التكنولوجيا المالية على تحقيق الشمول المالي من خلال التحول الرقمي
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Abstract:

This study aims to shed light on the role of financial technology (FinTech) in achieving financial inclusion through digital transformation. It emphasizes the importance of providing access to formal financial services for all segments of the population. The study focuses on the potential of FinTech to achieve this, including mobile-based crowdfunding, which can facilitate access to financial services and reduce costs. It also discusses the impact of digital technologies such as blockchain and artificial intelligence on transforming the financial sector and promoting financial inclusion. The study further addresses existing challenges, such as infrastructure issues, regulation, and social and economic disparities, and provides recommendations to stimulate innovation, enhance consumer protection, and contribute to creating a more inclusive and sustainable financial system.

Keywords: Financial Technology (FinTech), Financial Inclusion, Digital Transformation.

Jel Classification Codes: G23, O16, L86.

الملخص:

تهدف هذه الدراسة الى تسليط الضوء على دور التكنولوجيا المالية في تحقيق الشمول المالي عبر التحول الرقمي، منة خلال ابراز أهمية توفير الوصول إلى الخدمات المالية الرسمية لجميع الفئات. مع التركيز على إمكانات التكنولوجيا المالية في تحقيق ذلك، بما في ذلك التمويل الجماعي عبر الهاتف المحمول، والتي يمكن أن تسهل الوصول إلى الخدمات المالية وتخفف التكاليف. وكما تم التطرق أيضا إلى أثر التقنيات الرقمية مثل البلوك تشين و الذكاء الاصطناعي في تحويل القطاع المالي وتعزيز الشمول المالي. ومناقشة التحديات الموجودة مثل قضايا البنية التحتية والتنظيم والتفاوت الاجتماعي والاقتصادي وتقديم توصيات لتحفيز الابتكار وتعزيز حماية المستهلك وتساهم في خلق نظام مالي أكثر شمولاً واستدامة.
الكلمات مفتاحية: التكنولوجيا المالية، الشمول المالي، التحول الرقمي.

تصنيف jel: G23, O16, L86

1. Introduction

The introduction of this essay will provide a foundational understanding of the impact of financial technology on achieving financial inclusion through digital transformation. It will outline the significance of discussing this relationship, emphasizing the potential of digital finance to improve access to financial services for the excluded population, particularly in low-income countries where mobile phone ownership is prevalent (Boshkov, 2019). The introduction will also touch upon the role of modern wireless telecommunications infrastructure in driving the development of financial infrastructure and the pivotal role of fintech companies and mobile operators in expanding the reach of financial services through digital platforms. Moreover, it will highlight the importance of digital technologies in reducing the cost and time associated with financial transactions, ultimately providing new opportunities for excluded segments of the population to access better quality financial services.

Furthermore, the introduction will address the complex notion of financial inclusion, encompassing the objective of providing universal access to a diverse array of financial services and products for individuals and enterprises, particularly those historically marginalized or excluded from the formal financial system (Mhlanga, 2024). It will underscore the significance of initiatives such as the provision of basic banking services, microcredit organizations, digital payments, and community-based financial institutions in promoting financial inclusion, with a focus on the transformative impact of mobile money services in developing nations. This section will set the stage for an in-depth exploration of the multifaceted relationship between financial technology and financial inclusion through digital transformation

2. Understanding Financial Inclusion

Financial inclusion, as endorsed by the G20 High-Level Principles for Digital Financial Inclusion, is a critical agenda for G-20 countries and the World Bank. It is defined as the access to formal financial services and products, and is seen as a key factor in reducing extreme poverty, with the goal of achieving Universal Financial Access. Despite strong policy support, significant gaps persist in building an inclusive financial system, with approximately 2 million people globally remaining unbanked. The gender gap in financial inclusion is also notable, with fewer women than men having access to formal financial services. This section provides a foundational understanding of financial inclusion and highlights its relevance in the context of the essay's focus on the impact of financial technology on achieving financial inclusion through digital transformation (Arora, 2017.)

In addition, financial inclusion has impacts on economic development, particularly in Asian-Pacific countries. It is linked to national financial literacy, as access to formal financial knowledge can significantly improve financial literacy. Moreover, promoting online transactions instead of cash can create opportunities for startups in the e-commerce business field. The use of mobile banking is also highlighted as an effective method to increase financial access, as it allows almost all people to have easy access to credit, savings, and insurance (Abdulhakeem & Hu, 2021.)

2.1 Definition and Importance

Financial inclusion is a crucial concept that aims to provide individuals with access to essential financial services, such as banking, loans, and insurance, regardless of their income level or geographic location. It plays a vital role in promoting economic development and reducing poverty by empowering individuals to manage their finances, invest in education, and start businesses. The significance of financial inclusion lies in its ability to create opportunities for individuals

to improve their livelihoods and contribute to the overall growth of the economy (Mhlanga, 2024.)

Furthermore, the use of digital finance, including mobile phones and internet-based financial services, has been identified as a key enabler of financial inclusion. With the widespread ownership of mobile phones, particularly in low-income populations, the provision of financial services through digital platforms can significantly enhance access to formal financial services. This has a positive correlation with the use of digital finance and the expansion of financial inclusion, as it reduces costs, waiting times, and paperwork associated with traditional banking services (Boshkov, 2019.)

3. Financial Technology (FinTech) as a Catalyst

Financial technology (FinTech) has emerged as a catalyst for advancing financial inclusion, particularly for underserved populations. One of the key mechanisms through which FinTech promotes financial inclusion is crowdfunding, which leverages collective efforts to raise capital. Crowdfunding encompasses rewards-based, equity, and debt models, offering advantages such as access to a wide audience, idea validation, and customer engagement. Platforms like Kickstarter and GoFundMe have popularized crowdfunding, transforming traditional funding approaches. Moreover, the Inclusion-Through-Technology theory emphasizes the role of digital financial services, such as mobile banking and digital wallets, in overcoming access barriers and reducing costs for underbanked populations (Mhlanga, 2024.)

In addition to its impact on financial inclusion, FinTech extends its transformative potential to other sectors, such as healthcare. In Africa, FinTech for health has demonstrated effectiveness in improving access to quality healthcare services and financing. By reshaping payment dynamics and expanding financial access to healthcare, FinTech contributes to enhancing the overall state of healthcare services in the continent.

Furthermore, the integration of FinTech into healthcare industries enables medical institutions and professionals to adapt to patient expectations and develop strategies for a digital future, ultimately supporting the achievement of UN Sustainable Development Goals (Ratnawati, 2020).

4. Digital Transformation in the Financial Sector

Digital transformation in the financial sector is pivotal for advancing financial inclusion, particularly through the widespread adoption of digital financial services. These services typically encompass a transactional platform, retail agents, and the use of digital devices by customers and agents to conduct transactions. As highlighted by Ozili (2018) (Hasan et al., 2021), digital finance has the potential to significantly enhance financial inclusion by providing affordable, secure, and convenient banking services to individuals in developing countries. Moreover, the improved accessibility and affordability of digital financial services can facilitate the transition from cash-based transactions to formal digital financial transactions, thereby contributing to economic stability and increased financial intermediation.

Furthermore, the impact of digital finance on financial inclusion is not limited to developing economies. Ozili (2018) (Ezzahid & Elouaourti, 2021) also emphasizes the positive effects of digital finance through Fintech providers on financial inclusion in both emerging and advanced economies. The convenience offered by digital finance is particularly valuable to individuals with low and variable income, often outweighing the higher costs associated with obtaining such services from traditional regulated banks. However, it is important to note that while digital finance presents numerous benefits for financial inclusion, there are also challenges and potential implications for financial stability that warrant further exploration in future research.

4.1 Key Technologies Driving Transformation

The digital transformation within the financial sector is being driven by several key technologies that are revolutionizing the industry. Mobile banking, blockchain, and artificial intelligence are at the forefront of this transformation, playing pivotal roles in enhancing financial inclusion. Mobile banking has emerged as a powerful tool for providing financial services to individuals who were previously excluded from the formal financial system. With the widespread ownership of mobile phones and access to affordable internet connections, the provision of financial services through mobile devices has significantly improved access to finance for underserved populations (Boshkov, 2019). Additionally, the adoption of digital technologies has streamlined processes, reduced paperwork, and minimized the time required to initiate financial relationships, thereby enabling financial institutions to reach and transact with a broader customer base.

Blockchain technology has also been instrumental in promoting financial inclusion by offering secure and transparent transaction mechanisms. Its decentralized nature and ability to provide immutable records have facilitated the development of innovative financial products and services delivered through digital platforms, thereby engaging low- and middle-income customers with the broader financial system (Mhlanga, 2024). Furthermore, artificial intelligence (AI) is playing a crucial role in expanding financial inclusion by enabling the creation of customized and accessible financial services and products that cater to the distinct requirements of various consumer segments. These technological advancements are reshaping the financial landscape and presenting new opportunities for policymakers, regulators, and financial institutions to promote digital financial

inclusion and expand payment platforms for government transactions. (Kanga et al.2022(

5. Challenges and Barriers to Financial Inclusion

Financial inclusion faces several challenges and barriers, including issues related to infrastructure, regulations, and socio-economic factors. (AlMomani and Alomari, 2021) discusses the persistent issues associated with digital finance and financial inclusion, emphasizing the need to address these challenges to enhance the effectiveness of digital finance for individuals, businesses, and governments. Despite the benefits of digital finance, there remains a significant gap between the availability of finance, its accessibility, and use, particularly in the realm of digital financial inclusion and financial data inclusion. Furthermore, the convenience of digital finance for individuals with low and variable income is highlighted, indicating its potential value, though challenges such as financial stability and the relationship between digital finance and economic crises are also noted (AlMomani and Alomari, 2021). These insights underscore the need for a comprehensive approach to address the multifaceted challenges and barriers to achieving widespread financial inclusion through digital transformation.

6. Case Studies of Successful Implementation

Case studies of successful implementation of financial technology to enhance financial inclusion provide valuable insights into practical approaches that have effectively expanded access to financial services. For example, crowdfunding platforms such as Kickstarter, Indiegogo, and GoFundMe have emerged as popular means to solicit funds for a wide range of projects, offering advantages such as access to a wide audience, validation of ideas, and customer engagement. However, challenges such as the need for a compelling pitch and the risk of not meeting funding goals also exist (Mhlanga, 2024.(

In addition, the adoption of digital technologies, including mobile banking and digital wallets, has played a crucial role in promoting financial inclusion by providing users with access to financial services from their mobile devices. This has been particularly impactful for underbanked populations that may not have access to traditional banking services, as it helps to lower the expenses associated with financial services and reduce the cost of initiating and maintaining financial relationships (Boshkov, 2019). These case studies demonstrate the practical application of financial technology in overcoming barriers and expanding access to financial services, ultimately contributing to the achievement of financial inclusion.

7. Policy Recommendations for Enhancing Financial Inclusion

In light of the growing role of financial technology (fintech) in promoting financial inclusion, policymakers should consider several key recommendations. First, regulatory frameworks should be designed to encourage innovation while ensuring consumer protection and financial stability. Public-private partnerships can also play a crucial role in expanding access to digital financial services, particularly in underserved areas. Moreover, inclusive policy measures, such as promoting digital payment platforms for government transactions, can significantly contribute to enhancing financial inclusion. These measures align with the theoretical basis that the provision of financial services through mobile phones and digital platforms can improve access to finance, especially for the excluded population (Afjal, 2023.)

Furthermore, the integration of big data in fintech can be leveraged to address the issue of financial exclusion. By utilizing big data analytics, fintech companies can better understand the financial needs of individuals and businesses that have been historically marginalized or excluded from the formal financial system. This understanding can inform the

development of tailored and accessible financial products and services, thereby contributing to the broader objective of financial inclusion (Mhlanga, 2024.)

8. Future Trends and Opportunities in FinTech and Financial Inclusion

The future of financial technology (FinTech) holds promising trends and opportunities for advancing financial inclusion. One such trend is the increasing integration of mobile phones as digital wallets and virtual bank accounts, allowing individuals, particularly those in low-income countries, to access financial services. This is supported by the expansion of modern wireless telecommunications infrastructure, which fosters the development of financial infrastructure and incentivizes investment in delivering financial services via mobile devices. Additionally, the adoption of digital technologies reduces the cost and time associated with initiating and maintaining financial relationships, thereby enhancing access to better quality financial services for previously excluded segments of the population.

Moreover, the influence of big data in the FinTech industry is poised to play a pivotal role in addressing financial exclusion. Big data analytics can enable financial institutions and FinTech companies to tailor financial products and services to cater to the distinct requirements of various consumer segments, making them more accessible, economical, and customized. This can encompass initiatives such as the provision of basic banking services with minimal or no charges, microcredit offerings for entrepreneurial activities, and the transformation of financial inclusion through mobile money services, as exemplified by M-Pesa in Kenya. As policymakers and regulators navigate these developments, governments can promote digital financial inclusion by expanding payment platforms for government transactions, further contributing to

the advancement of financial inclusion through digital transformation.

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