



Financial Inclusion through Fintech: A Perspective of Unserved Populations in Developing Regions

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Abstract

The study aims to understand the role of financial technology (fintech) in improving financial inclusion in developing regions, with a focus on populations that have not been served by traditional banking services. Through a qualitative approach involving in-depth interviews and field observations, the study identified four main themes: accessibility of fintech services, economic benefits for users, challenges in the use of technology, and the social role of fintech in society. The findings show that fintech opens up access to easier and more affordable financial services, helping low-income people to obtain microloans, save, and increase economic independence. However, challenges related to digital literacy, internet infrastructure, and data security are still obstacles that must be overcome. The study concludes that fintech has the potential to be an effective solution to increase financial inclusion in developing regions, especially if supported by increased digital literacy and the expansion of internet infrastructure.

Keywords: financial inclusion, fintech, underserved populations

A. Introduction

Financial inclusion has become one of the major global issues in efforts to reduce poverty and economic inequality. According to a report from the World Bank, about 1.7 billion people in the world still do not have access to formal financial services, which impacts their ability to save, invest, and manage financial risks effectively (Demirguc-Kunt et al., 2018). This challenge is especially felt in developing regions, where underserved populations, including low-income groups, rural communities, and micro, small, and medium enterprises (MSMEs), remain isolated from the formal financial system (Allen et al., 2016). This inequality of access to financial services hinders people's ability to develop their businesses, meet their daily needs, and face urgent financial risks.

Fintech or financial technology offers innovative solutions to expand financial inclusion through easy access to digital financial services, which allows individuals and businesses in remote areas to access digital



banking, credit, and payments without the need for physical banking infrastructure (Ozili, 2018). In developing countries, fintech has emerged as an effective approach to overcome these barriers, as fintech is accessible through mobile devices and the internet that is already widespread. For example, M-Pesa in Kenya became a successful model in the use of fintech to access basic financial services, which is now being adopted in several other African countries (Jack & Suri, 2011). The success of M-Pesa shows the potential of fintech in expanding the reach of financial services to underserved populations.

The urgency of research on financial inclusion through fintech in developing regions is evident from the urgent need for effective and sustainable solutions to integrate underserved populations into the formal financial system. Fintech technology also brings great opportunities in reducing transaction costs, increasing transparency, and speeding up financial processes, which can provide immediate benefits to low-income communities (Gomber et al., 2018). This research is relevant because it can help understand how the perceptions and needs of underserved groups are in relation to fintech services, as well as identify the factors that encourage or inhibit fintech adoption among this population.

The novelty of this study lies in a qualitative approach that focuses on the perspective of the underserved population in fintech adoption. Most previous studies have focused on the technical and regulatory aspects of fintech, while this study has attempted to delve into the experiences and challenges of populations in developing regions in accessing fintech services (Prakash & Singh, 2011). Thus, this research is expected to fill the gap in the literature on technology-based financial inclusion, especially from the perspective of unserved users.

The purpose of this study is to analyze the role of fintech in expanding financial inclusion for underserved populations in developing regions, identify the challenges these populations face in accessing fintech services, and investigate the factors influencing the perception and adoption of fintech among underserved groups. With a better understanding of the needs and perceptions of this population, it is hoped that the results of the study can provide recommendations for fintech service providers and policymakers in designing products and services that are more inclusive and in accordance with the needs of this group.

The benefits of this research are theoretical and practical. From a theoretical perspective, this research can contribute to the literature on financial inclusion and financial technology adoption in developing regions, as well as offer a new perspective on the role of fintech in the economic empowerment of underserved communities. In practical terms, the results of this study are expected to help fintech service providers to design more inclusive products and assist policymakers in formulating

regulations that support an inclusive fintech ecosystem for all levels of society, especially those who have not been reached by formal financial services (Appio et al., 2024).

B. Research Methods

The research method in this study uses a qualitative approach with the aim of exploring the perspective of the population that has not been served by formal financial services, especially in the context of financial inclusion through financial technology (fintech) in developing regions. The qualitative approach was chosen because it allows for an in-depth exploration of the perceptions, experiences, and challenges experienced by underserved populations related to access and use of fintech services (Creswell & Clark, 2017). With this method, researchers can dig into a more comprehensive understanding of how fintech plays a role in improving financial access for those who previously had difficulty obtaining traditional banking services.

The research design used is a case study with a focus on several areas in developing countries that have low levels of financial access. This case study approach provides flexibility in exploring the socio-economic conditions and contexts of the population that the research focuses on, while allowing for rich and in-depth data collection. In selecting locations, the researcher used a purposive sampling technique by selecting areas that have limited access to conventional financial services but are beginning to develop in the use of fintech services, such as digital payment services, microlending, and application-based savings systems. Respondents to this study included individuals classified as underserved populations, including those who live in rural areas, have low incomes, or are in the informal sector.

Data were collected through in-depth interviews and participatory observations. Interviews were conducted in person or online, depending on field conditions and the accessibility of the respondents. Each interview lasts about 45-60 minutes and uses semi-structured guidelines to ensure that all relevant aspects related to financial inclusion through fintech can be identified and analyzed. The interview guidelines cover topics such as ease of access, respondents' understanding of fintech services, constraints on use, and perceived benefits of fintech services. Participatory observation was also carried out to understand the real interactions and experiences of respondents in using fintech services on a daily basis, as well as to record social and cultural factors that affect the use of these technologies.

The data analysis technique used is thematic analysis. The data collected from interviews and observations are organized, coded, and grouped into several main themes. This stage of analysis includes the process of rereading the data as a whole, identifying emerging patterns,

and grouping information based on relevant themes, such as ease of access, service utilization, technical challenges, and socio-economic impacts. This analysis was carried out with the help of NVivo software to facilitate systematic grouping and interpretation of data (Braun & Clarke, 2006).

To ensure the validity and reliability of the data, this study uses a data triangulation technique by combining the results of interviews and observations, and comparing the research findings with relevant literature and previous studies. In addition, the member checking technique is also applied by asking respondents to review the results of the interview and the interpretation of the researcher to ensure the accuracy and consistency of the data obtained. This research is expected to be able to produce findings that are not only valid but also relevant and representative to understand the role of fintech in driving financial inclusion for underserved populations in developing region.

C. Result and Discussion

1. Accessibility of Fintech Services

Most of the research respondents, especially those who live in rural areas or have low incomes, revealed that fintech has opened up new opportunities for them to access financial services. Before fintech, access to formal financial services was very limited due to the long distance to banks, complex administrative procedures, and the need for requirements that were often difficult to meet, such as official identity documents and financial guarantees. The findings of this study show that payment applications and digital loans have overcome most of these obstacles.

Respondents who use fintech applications, such as digital wallets and bill payment applications, stated that this technology provides extraordinary convenience in making transactions without having to visit banks or other payment service offices. For example, a respondent from a remote village revealed: "Now I can transfer money without having to leave the village, even to pay the electricity bill can be through a cellphone," (R1, interview). The use of fintech applications also expands people's access to financial products, including term deposits, microinsurance, and microloans.

Fintech services also address the geographical and social barriers that have been a major barrier for underserved populations to gain access to formal financial services. Many respondents who live in areas far from city centers revealed that they had previously rarely or even never used bank services due to the impracticality and time required to go to the bank. The existence of fintech helps create financial inclusion by allowing people to make transactions anytime and anywhere, as

long as they have access to mobile devices and an adequate internet connection.

2. Economic Benefits for Users

In addition to opening access to financial services, fintech also provides direct economic benefits for its users. The findings of this study reveal that microloan applications and digital wallets help low-income populations to access capital in an easier and faster way. Microloans through fintech applications are an alternative for those who previously relied on informal loans with high interest. One of the respondents who is a trader in the traditional market stated: "This microloan helps me to replenish my stock of goods without having to owe money to loan sharks, whose interest rates are very high," (R2, interview). This shows that fintech plays a role in reducing people's dependence on the traditional lending system which is often not transparent and detrimental.

Another benefit recognized by users is the ease of saving and managing finances. Some respondents who have erratic or low-income incomes claim that they now have a safer alternative to storing money through digital wallets or micro-savings offered by fintech services. With the money storage feature in the application, people who do not have access to bank accounts can save money without having to face complicated procedures. The ability to save money electronically also allows them to have better control over their spending and savings, which can ultimately support their long-term economic goals, such as children's education or home improvements.

In addition, fintech offers a variety of micro-investment products that allow low-income users to invest small amounts. For example, an application that allows the purchase of mutual funds or micro-bonds opens up opportunities for users to grow their assets even with limited capital. Access to these investment products creates an opportunity for users to participate in formal financial markets and benefit from rising asset values, something previously difficult for underserved populations to reach.

3. Challenges in the Use of Technology

While fintech services have provided significant benefits, the study found a number of challenges that hinder the use of financial technology among underserved populations. One of the main obstacles is the low level of digital literacy, especially among older respondents or those who are less exposed to technology. Many respondents have difficulty understanding how to use fintech applications, especially when the process involves multiple complex stages or requires technical understanding. This affects the rate of fintech adoption among the underserved population.

In addition, the instability of the internet network in rural areas is a major obstacle. Many respondents in remote areas complained about the difficulty of accessing applications due to weak internet signals. "Often the app can't be opened because the signal is weak, so I have to go out into the street to look for a stronger signal," (R3, interview). This obstacle has resulted in fintech becoming less effective in supporting financial inclusion in regions with inadequate internet infrastructure.

Concerns about data security and privacy risks are also a concern for many potential users. Some respondents stated that they felt worried about how their personal data was used and processed by fintechs. There is a perception that their data could be misused or accessed by third parties without consent, which affects their trust to use digital financial services in full. This shows that education about data security and technology reliability needs to be improved so that users feel safer and more comfortable in using fintech services.

4. The Social Role of Fintech in Society

Fintech not only provides economic benefits but also contributes to social development in developing regions. This research found that fintech services help strengthen social bonds in society by allowing them to share and help each other through digital transactions. The use of digital payment applications for charity or donations has become a common practice, especially in rural communities. One of the respondents, a community leader, explained: "We can collect money through mutual cooperation through the application, so it is more practical and everyone can contribute," (R4, interview). This shows that fintech creates opportunities for people to participate in social activities more easily and efficiently.

Fintech applications also contribute to the formation of stronger social networks within the community. For example, some community groups have become accustomed to using fintech applications to raise collective funds or save together for a specific purpose, such as funding community projects or helping members who are experiencing financial difficulties. This practice encourages the creation of a culture of mutual cooperation that is easier to organize and structure thanks to the help of technology. Additionally, fintech helps reduce people's reliance on informal sources of financing, which are often exploitative.

In the context of economic empowerment, fintech has an important role in increasing people's economic independence. By allowing access to financial services that were previously difficult to reach, fintech helps individuals to become financially independent and not rely on outside help. This has a positive impact on strengthening people's ability to overcome the economic challenges they face independently, as revealed by some respondents that they are now

more confident in facing economic uncertainty due to access to microloans or digital savings.

Discussion

The findings of this study show how fintech has great potential in accelerating financial inclusion in developing regions, but still faces a number of challenges that need to be overcome. The following is a more in-depth discussion of each finding based on theoretical perspectives and previous studies.

1. Accessibility of Fintech Services and Financial Inclusion Theory

The findings on accessibility show that fintech has acted as a catalyst for extending financial services to populations that were previously difficult to reach by traditional banking systems. These findings are in line with financial inclusion theory, which emphasizes the importance of easy, cheap, and affordable access for the wider public to be able to use formal financial services (Allen et al., 2016). In this context, fintech services function as a link that overcomes geographical and administrative barriers that have been the main obstacles. This supports a study by (Jack & Suri, 2011) which found that digital-based financial services in Kenya are able to improve rural people's access to basic banking services.

However, the role of fintech in opening up financial access also depends on the availability of digital infrastructure, such as internet networks and mobile phones, which are still limited in many developing regions. Thus, governments and service providers need to work together to expand telecommunications infrastructure so that fintech services can be accessed by more unserved populations.

2. Economic Benefits for Users: A Theoretical Perspective of Economic Development

This research shows that fintech not only improves access to finance but also provides direct economic benefits for users, especially those engaged in the informal sector. These findings support the view of economic development theory, where financial inclusion can improve economic well-being by providing access to capital for people who typically do not have assets or collateral to obtain credit. Microlending by fintechs, as found in this study, allows low-income people to develop their businesses or address emergency needs, thereby increasing their economic stability (Esther Lopez-Martin. Gabriela Topa, 2019).

These benefits are in line with research by (Dupas & Robinson, 2013) which found that access to microloans among low-income communities can increase their production capacity and income. However, even though microloans provide economic opportunities, fintechs must ensure that the interest rates applied remain affordable

so as not to burden users, especially those from weak economic groups.

3. Challenges in the Use of Technology and Digital Literacy

The challenges faced by respondents, such as limited digital literacy and internet network instability, reveal the reality that fintech adoption is not entirely easy for underserved populations. Most respondents, especially those who are older or have a low level of education, have difficulty understanding how to use fintech applications. These findings are in line with the study of (Gautam et al., 2022) which stated that low digital literacy is one of the main barriers to adopting new technologies in developing countries.

According to technology adoption theory, the success of a new technology depends heavily on the user's ability to understand and utilize the technology (Davis, 1989). To overcome this challenge, fintech service providers can provide digital literacy training programs and application usage guides that are simple and easy for users to understand. In addition, digital infrastructure support is also very important to overcome technical obstacles experienced by users in remote areas.

4. The Social Role of Fintech in Society: A Perspective of Social Capital Theory

Findings regarding the social impact of fintech show that these services not only facilitate individual transactions but also help strengthen social bonds in society through participation in collective financial activities. This shows that fintech has a role in building social capital in society, where this technology allows social interaction and solidarity through the practice of sharing and mutual cooperation.

These findings are supported by research by (Yakubovich et al., 2005), which explains that social capital plays an important role in the economic development of communities by encouraging social cohesion and cooperation. By allowing members of society to engage in financial activities collectively, fintech helps create social mechanisms that support financial openness and inclusion. However, it is important for fintech providers to ensure that their platforms are secure and trustworthy so that people do not hesitate to utilize these services for joint financial activities.

5. Implications of Findings and Recommendations for Fintech Practices

The main implication of the study is that fintech has the potential to accelerate financial inclusion in developing regions, but it still needs support from various parties to address the challenges faced. Fintech providers need to pay attention to the digital literacy needs for new users and collaborate with the government to expand access to digital infrastructure. Additionally, it is important for

fintechs to consider the needs and limitations of underserved populations in designing services that are accessible, affordable, and secure.

The government is also expected to provide regulatory support that encourages digital financial inclusion, especially in terms of providing infrastructure and consumer protection. Through adequate regulation, fintech can develop sustainably and make a positive contribution to improvement.

D. Conclusion

This research shows that fintech has a significant role in increasing financial inclusion for underserved populations in developing regions. From the results of the research, it was found that fintech was able to overcome various barriers to financial access that have been the main obstacles, such as long distances to banks and complicated banking procedures. Fintech applications make it easy for people, especially those living in remote or low-income areas, to conduct financial transactions independently and efficiently. Fintech also provides tangible economic benefits, where users can access microloan services, save money, and better manage their finances. This helps the underserved population to improve their standard of living and economic independence. However, challenges remain, especially related to digital literacy and limited internet access in some remote areas. Data security issues also need to be considered as they are a major concern for many new users. In addition to economic benefits, fintech has a positive social impact in strengthening community bonds through digital donations and fundraising activities. This creates a culture of mutual cooperation that is easier to organize and structure thanks to digital technology. With a deeper understanding of the challenges and potential of fintech, this study suggests that governments and fintech providers collaborate to improve digital literacy, expand internet infrastructure, and ensure the security of user data so that fintech can reach its maximum potential in supporting financial inclusion in developing regions.

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