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Deepening Financial Inclusion through Digitization: A Case Study of Microfinance in China

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Abstract
This study sets out to investigate the current state of microfinance in China, with a special focus on microcredit and its effects on small business owners. This research was motivated in part by the fact that nearly 30% of the Chinese population does not have access to traditional banking services because of factors like their location, income level, credit history, or identification documents. We set out to extend the conversation about financial inclusion by zeroing in on microfinance in economically depressed areas of China, notably in its coastline provinces. Two methods were used to complete this investigation. First, online focus groups were held with local microcredit executives, most of whom resided in megalopolises like Shanghai. These talks included first-hand accounts from people who often conduct financial transactions in precarious settings. To supplement the data, the researchers also spoke with Chinese digital product management specialists. Focus groups and in-depth interviews with subject-matter experts were used to collect and analyze data. Because of the complexities of microfinance operations and the obstacles to financial inclusion in China, a qualitative methodology was chosen for this study. This research analyzes the data carefully and concludes that microcredit is crucial in helping microentrepreneurs, especially in marginalized communities. There are, however, serious obstacles to the expansion of microcredit in the country, including credit qualification rules and accompanying financial costs. The results of the study highlight the importance of digital transformation in microfinance and its potential benefits. It highlights the importance of designing effective digitization strategies that take into account multiple aspects to improve underprivileged communities' access to financial services. The results also show how significant regulatory policies are in promoting financial inclusion. The study's novelty comes in the fact that it is the first to do such a thorough analysis of the Chinese microfinance industry with the use of first-hand information from microfinance operators and digital product specialists. Therefore, this study has important implications for policymakers and practitioners in China and elsewhere who are working to expand access to financial services.

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1.0. INTRODUCTION

The aim of this study is to investigate the opportunities and challenges of achieving greater financial inclusion (FI) through digitization from the perspective of microfinance operators and experts in digital products. The term financial inclusion refers to the access of regulated financial and formal services by a State's population. According to Ortiz and Nuñez's (2017) definition, FI involves the entire population having access to quality financial services at an affordable cost, which positively impacts their general well-being.

In China, around 30% of the population does not have access to traditional banking services, which can be attributed to several factors such as a lack of financial infrastructure in some areas and geographical barriers (Wang & He, 2020). Moreover, some individuals may face challenges in opening bank accounts due to low credit scores or lack of proper identification documents (Fungáčová & Weill, 2015). Despite the Chinese government's efforts to promote financial inclusion, a significant portion of the population still remains unbanked, especially those living in rural areas or those with low incomes. Experts suggest that increasing access

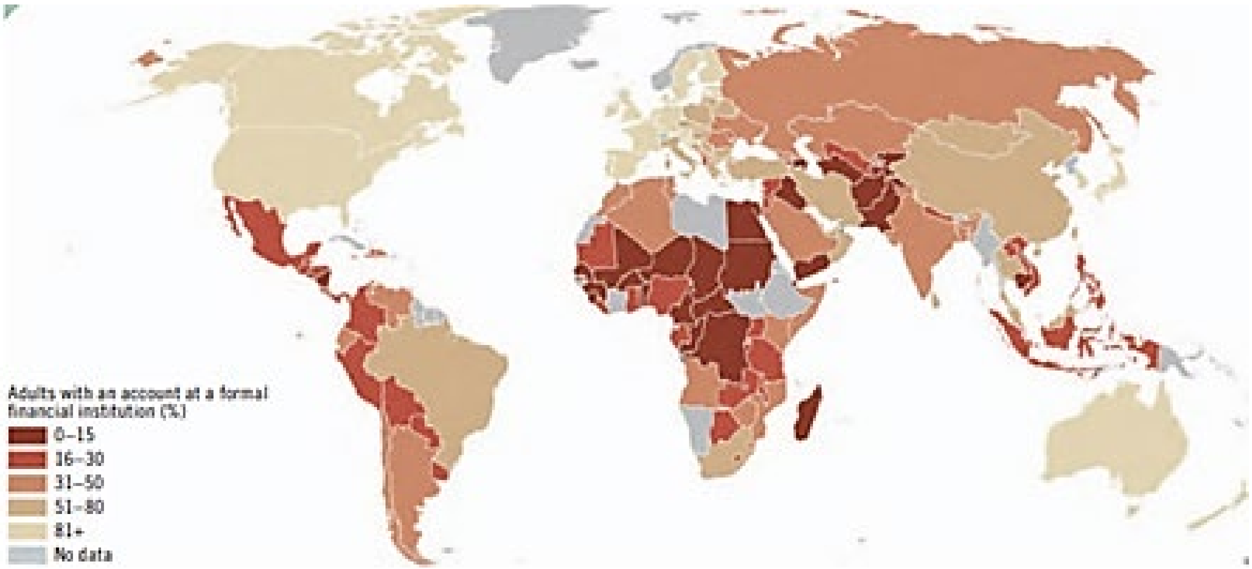

Figure 1: Account Penetration Around The World
Source: Demirguc-Kunt and Klapper (2012)

to digital banking services and promoting financial literacy can be beneficial in addressing this issue (Zhu et al., 2022).

Within this context, Demirguc-Kunt & Klapper (2012) have highlighted on the account penetration around the world (see Figure 1). It shows that account penetration has a significant difference between high-income and developing countries where 89 percent of adults have an account at formal financial institutions (high income economies) and almost half of the figure that is 41 percent in developing countries. Adding to that, more than 2.5 billion of adults in developing countries do not have a formal account. An interesting fact to look into is on the small percentage or the lowest account penetration in Middle East and North Africa. It is reported that only 18 percent of adults have a formal account. Here, financial inclusion should be taken seriously by the government and local authorities to encourage the people of the importance of savings and investing for future purposes like education, personal matters and even emergency cases.

It is essential to note that the lack of financial inclusion can have serious consequences for individuals and the economy as a whole. Without basic financial services, individuals may struggle to save money, invest in their businesses or build a credit history, making it difficult for them to access loans or other financial products in the future. Additionally, a lack of financial inclusion can contribute to inequality and hinder economic growth (Mpofu, 2022). Therefore, it is crucial for governments and financial institutions to collaborate and ensure that all individuals have access to the tools necessary to manage their finances effectively.

The focus of this study is on the process of transferring basic banking services, such as credit placement, account opening, and payments, to mobile devices with internet connectivity, known as digitization. The Global Microscope (2018) states that technology is revolutionizing the access and use of financial services, in the same way that the internet and mobile services have transformed communication.

The promotion of FI is crucial, given its potential role in territorial development and in achieving the United Nations' 2030 Sustainable Development Goals. Globally, 31% of adults, equivalent to 1.7 billion people, lack access to basic financial services, which limits their ability to invest in their future (Demirgüç-Kunt, 2022). Promoting FI supports the attainment of SDG 1, which aims to eradicate poverty by creating a consumption profile less vulnerable to contingencies (Sharma, 2022).

The literature on FI has been in existence since Townsend's (1995) exploration of solidarity loan guarantee schemes in low-income communities. Academic interest in this concept grew considerably from 2005, with the work of Sarma (2008) gaining particular influence, focusing on the practices of rural communities in India. The report by Demirguc-Kunt & Klapper (2012) for the World Bank has also been widely cited in the literature on FI, providing a global perspective of the problem. It is noteworthy that both Sarma and Demirguc-Kunt & Klapper's manuscripts systematize the concept of financial inclusion through the development of indices, indicating that they are primarily quantitative investigations. Dinesh & MuniRaju (2021) found that the widespread fear caused by the COVID-19 pandemic drove more people to shop online than ever before. This boom in e-commerce offers huge opportunity for online stores but also brings some serious difficulties. Retailers can take advantage of this development by increasing their market penetration and breadth through increased customer involvement and the use of cutting-edge technologies. Conversely, qualitative research on FI is less frequent and more recent, such as the comparison of 43 countries by Kabakova & Plaksenkov (2018) and Okello Candiya Bongomin & Munene's (2020) study in rural areas of Uganda.

This research aims to enhance the understanding of financial inclusion in China by analyzing financially excluded communities along the coastal regions. The study will focus on the perspective of microfinance operators in major urban centers, including Shanghai, which is a major economic hub of the country and has a population of over 24 million people (Zreik, 2023a). The view of microfinance operators is important due to their practical knowledge about the daily financial operations in vulnerable contexts.

This work aims to complement previous studies that represent the voices of the financially excluded, such as Kar and Schuster (2016). The data will be collected and analyzed through virtual focus groups with local microcredit executives, using conference platforms such as Zoom, and through interviews with experts in the management of digital products in China. By exploring the perspectives of these key stakeholders, this research will provide valuable insights into the current state of financial inclusion in China and inform future efforts to promote financial inclusion in the country.

2.0. LITERATURE REVIEW

Several studies over the last five years have aimed to explain how digitization of banking services can lead to financial inclusion. Case studies in East Africa have been particularly useful in providing a theoretical framework for this research. The explosion of mobile phone technology in Africa has led to rapid development of mobile banking, providing access to financial services to unbanked individuals, especially in rural areas where retail banking infrastructure is lacking (Shaikh et al., 2023). Kenya has become the leading country in the region for mobile banking penetration, thanks to mobile banking's contribution to greater financial inclusion in sub-Saharan Africa (Sporta & Orina, 2021).

Digitization is also one of the main drivers of change in society today, extending beyond financial services. In companies, digitization has revolutionized operations and the way actors involved in production processes interact (Pal et al., 2021). The impact of digitization has been compared to the industrial revolution (Ndung'u & Signé, 2020). Digitization refers to the adoption and continuous updating of digital technology to facilitate the flow and exchange of information, which was previously tangible in the form of physical documents, to activate processes (Parmar, Leiponen, & Thomas, 2020). Digitization is a continuous process rather than an end product (Ntamo et al., 2022). The digital transformation involves changes in the ways of working, both operationally and in the relationship with actors in the environment, including suppliers, customers, and interest groups.

The literature on digitization in the financial institutions sector is commonly referred to as Fintech, a fusion of the words financial technology. The adoption of digitization has transformed financial services, providing users with access to everything from simple balance inquiries to complex transactions. This has created new paradigms and parameters for understanding the quality of service and access. With the increasing market penetration of mobile devices, access to financial services has become largely dependent on access to electronic telecommunication devices and the internet (Pazarbasioglu et al., 2020). This has made it easier for financial institutions to diversify their range of services and target markets, ultimately promoting financial inclusion (Saleem, Nasreen, & Azam, 2022). Fintech companies have played a key role in this process in the last 5 years (Dhiaf et al., 2022).

Digitization has revolutionized not only the relationship between financial institutions and their customers, but also the management of daily operations, including relationships with suppliers, approval processes for transactions, and the issuance of investment and debt securities. This has resulted in a more efficient use of time and resources (Kouhizadeh & Sarkis, 2018). Beyond the digital transformation of traditional financial services, digitization has also enabled the emergence of innovations such as cryptocurrencies or digital currencies, regtech to avoid regulatory defaults, insurtech to expedite compensation payments, and blockchain to manage data generated by transactions continuously (Loukil et al., 2021). However, these innovations have had little impact on promoting financial inclusion among the financially excluded groups.

The link between financial exclusion and long-term income disparity is explored in "A Theory of Financial Inclusion and Income Inequality" by Kling et al., (2022). It uses models to investigate how a person's starting financial position affects his or her capacity to invest in future human or material assets, hence how such differences in wealth might be perpetuated.

The implications of financial inclusion on global economic growth are investigated in "New Insights into the Impact of Financial Inclusion on Economic Growth" by Azimi (2022), who employs a complete composite financial inclusion index to do so.

Nizam et al. (2020) highlight the growing focus on financial inclusivity, calling it a crucial issue for policymaking, especially in economically and socially disadvantaged regions of the world and in developing nations.

Ozili (2021) draws attention to new questions and discussions in the field of financial inclusion. The research covers topics including the pro-cyclicality of financial inclusion and exclusion, optimal financial inclusion, and the transfer of systemic risks to the formal financial sector.

The importance of financial literacy in paving the way for financial inclusion is emphasized by Khan, Siddiqui, and Imtiaz (2022). It emphasizes that financial literacy can have an impact on two crucial aspects of financial inclusion: access to and use of financial services.

Kumar (2017) provides a comprehensive analysis of financial exclusion, including its definition, origins, and effects, as well as methods for measuring inclusion and its bearing on economic development.

Mahmood et al. (2022) examined the demand for financial services, focusing on the correlation between financial inclusion and discretionary income to emphasize the potential role financial services can play in reducing poverty.

Existing indices may not effectively capture the multidimensional nature of financial inclusion, according to a critical analysis of the concept by Pesqué-Cela et al., (2021).

The potential of digitization to facilitate financial inclusion is significant for several reasons. Firstly, it can address the financial needs of the most vulnerable members of society (Alliance for Financial Inclusion, 2013). Those who are financially excluded are often subject to fraud, threats, and scams by informal entities and loan sharks. By promoting access to regulated financial institutions, financially excluded populations can have safer access to financial services at more reasonable and convenient costs (Center for Financial Inclusion, 2020). However, promoting financial inclusion through digitization comes with challenges. If financially excluded individuals do not have access to mobile devices with internet connectivity, they will not directly benefit from digitization (Myovella, Karacuka, & Haucap, 2020). Therefore, ownership and use of smart mobile devices, training in mobile application skills, and basic financial literacy are crucial to promoting financial inclusion.

Furthermore, promoting financial inclusion is not only beneficial to the financially excluded but to the entire country. Financial inclusion has the potential to connect cities with their surrounding rural populations and promote integrated urban-rural development (Liu, Zhang, Zhou, 2023). This can support the achievement of Sustainable Development Goals 2 and 11 of the United Nations 2030 Agenda by enabling more efficient intermediation and connection between farmers and entrepreneurs. The combination of basic financial knowledge with access to the tools to operate them can also open up opportunities to save, invest, and participate in the dynamics of financing production in the country (Pomeroy et al., 2020). A higher level of financial inclusion can have a positive impact on the revitalization of the economy and the reduction of inequality and poverty levels in the country (Wang et al., 2022).

In China, the level of financial inclusion varies significantly across regions and demographics. While the country has made notable progress in recent years, particularly in expanding access to digital financial services, there is still much work to be done to ensure that all individuals have access to basic financial services (Zreik, 2023b).

Recent studies indicate that financial inclusion in China is highly dependent on factors such as income level, education, and geographic location. Although access to banking services is generally good in urban areas, rural areas and low-income populations still face significant challenges in accessing financial services (IMF, 2022a).

To address these challenges, the Chinese government has implemented various initiatives to improve financial inclusion, such as expanding digital financial services and increasing access to credit for SMEs. The government has also prioritized financial education and literacy, especially in rural areas where awareness of financial services may be low (World Bank, 2021).

Despite the challenges, there have been significant improvements in financial inclusion in China in recent years. The widespread adoption of digital payment platforms like Alipay and WeChat Pay has made it easier for individuals to access financial services even in areas where traditional banking services are limited. As a result, China is expected to continue to make progress towards greater financial inclusion in the coming years (IMF, 2022b).

Digitization can play a crucial role in improving financial inclusion by expanding geographic coverage, reducing operating costs, and creating value propositions for users. By leveraging mobile devices, financial institutions can reach more customers and reduce waiting times, paperwork, and the need for physical branches, particularly in remote areas (Global Microscope, 2018).

3.0. RESEARCH METHODOLOGY

The aim of this study is to explore the challenges and opportunities of promoting financial inclusion in underserved communities in China through digitization. The researchers collected data from various sources to gain a comprehensive understanding of the state of microfinance digitization worldwide. This included reviewing technical reports from international organizations with expertise in economic issues and financial inclusion, such as the World Bank.

The authors of this study set out to fill a significant knowledge void by focusing on the unique difficulties of microfinance in China. This inquiry is motivated by data from the National Bureau of Statistics that estimated 30% of the Chinese population was without access to traditional banking services in 2021. Especially for low-income persons and microentrepreneurs, this lack of access to credit and other financial products is a substantial barrier to financial inclusion. Moreover, Yu et al. (2022) note that despite China's widespread usage of digital technologies, there are still people who do not have access to mobile devices or digital applications, particularly in rural areas with insufficient digital infrastructure.

This study's data was gathered through interviews with Chinese microfinance industry professionals in the form of focus groups. Methods were carefully followed to collect as much information as possible about their interactions with microcredit, client profiling, product demand, and workplace technology. This qualitative approach was selected because of its potential for dynamic interaction and exploration of elements not initially considered in the inquiry.

The "rules of thumb" for doing fruitful qualitative research were strictly adhered to throughout each focus group. This includes keeping the focus group size between 6 and 12 people, which has been found to be optimal for eliciting a range of perspectives while also allowing for productive group dynamics. In order to collect a substantial amount of information, three separate focus groups were convened. There were between 18 and 36 senior executives from microfinance institutions.

Each focus group meeting has its own set of questions that were designed to get the conversation rolling. However, the sessions were made to be adaptable so that unexpected ideas might be discussed and explored.

Participants were chosen for these focus groups because of their substantial expertise and involvement in microfinance operations in China. As a result, they provided insightful, actionable feedback on the opportunities and threats facing the industry.

In addition to the focus groups, in-depth interviews were conducted with experts in digital products to understand the motivation of financial institutions to deepen digitalization, the possible alliances that could be formed, and the potential impact on financial inclusion. The interviewees were specialists with experience in financial markets from various contexts.

The study aimed to gain a comprehensive understanding of microfinance digitization globally and the specific challenges facing microfinance in China, particularly for low-income individuals and microentrepreneurs who may struggle to access credit and other financial products.

The study utilized grounded theory to analyze the data gathered from both focus groups and interviews, allowing for the identification of key themes and their descriptions based on the interpretation and organization of data. The objective was to contribute to a better understanding of the digitization processes in China and explore obstacles and opportunities to create solutions that benefit financially excluded communities through digitization.

The Chinese government has implemented various initiatives to promote financial inclusion, such as expanding access to digital financial services and increasing financial literacy among the population (Mhlanga, 2022). However, there is still much work to be done to ensure that all individuals have access to the necessary tools to manage their finances effectively. By continuing to investigate the obstacles and opportunities related to microfinance digitization, innovative solutions can be developed to promote financial inclusion and empower underserved communities in China.

4.0. FINDINGS AND DISCUSSION

4.1. Addressing Digitization in China

In recent years, China has seen a significant increase in both fixed and mobile internet accounts. By November 2020, the number of advanced mobile service subscribers had reached 1.2 billion, equivalent to approximately 87.30% of the population, indicating a high level of internet penetration in the country (Vargas-Herrera et al., 2022). As a result of this trend towards digitization, financial institutions in China are exploring more innovative and differentiated ways to serve these segments of the population (Wen, Zhong, & Lee, 2022).

Mobile banking has contributed to greater financial inclusion in Sub-Saharan Africa (Siano et al., 2022). Based on this experience, it is estimated that high levels of financial inclusion are becoming increasingly feasible in China, particularly in remote rural locations. However, financial institutions are not solely motivated by the goal of financial inclusion.

“Financial institutions in China are paying close attention to market trends and embracing digitization to efficiently gather user data. The vast amount of data collected enables these institutions to better understand their clients and create personalized services that cater to their financial needs. This shift from creating products for everyone to developing services that target specific client profiles is essential in providing tailored financial solutions and expanding financial inclusion” (Expert in digital product management, Interviewed on February 17, 2023).

Financial institutions are increasingly responsive to market demands, recognizing the potential benefits of digitization in better understanding user data to more accurately profile clients. Rather than creating generic products, financial providers can offer tailored solutions to individuals without established profiles. However, digitization also presents significant challenges as financial institutions must compete to maintain their market share in the digital landscape.

The COVID-19 pandemic has accelerated the digitization process for financial institutions, as lockdown measures have forced consumers to rely on remote methods to purchase goods and services. Online stores, apps, social networks, and telephone calls have become the primary means of commerce, emphasizing the need for accessible and efficient digital financial services (WTO, 2022).

"Since the outbreak of COVID-19, there has been a pressing need to adopt digital channels as the primary means of connecting with customers. In this sense, there is no longer a significant difference between a large bank and a small one, as they all face the same challenges in adapting to the new reality." (Interview with Technology Consulting Director, February 28, 2023).

In short, based on the data obtained by the Ministry of Industry and Information Technology of the People's Republic of China (MIIT), it is important to note the significant growth in the ownership of smartphones in the Chinese population, particularly in urban areas (Chen, Gu, & Zou, 2022). The digitization process has been rapidly accelerated due to the impact of the pandemic, and it is expected to continue to advance. However, there is still a lack of digital competition in China, and not all organizations have been able to fully digitize. Meanwhile, the financial sector has taken notice of the increasing demand for digital services from companies such as Alibaba and JD.com, which are expanding their financial offerings to take advantage of their growing customer base. Similarly, Tencent's WeChat has become a popular digital wallet in China (Zhang & Chen, 2019).

4.2. The Role of Fintech in Digitization

The growth of Fintech has led to a worldwide acceleration of finance digitization. Fintech companies have played a vital role in reaching new customer segments with highly specific needs. Their innovation and specialization have enabled them to efficiently cater to specific requirements. On the other hand, international financial institutions (IFIs) often face challenges in innovating and responding to market demands due to their size. However, they have access to a vast customer base and their information. Thus, if the strengths of both entities are combined, including client volume and effective solutions (IFIs and Fintech, respectively), it can lead to an unbeatable synergy to enhance customer value and improve the user experience (Rabbani, 2022).

"Alliances are crucial for banks to become the center of an ecosystem and ensure their survival in it," stated the director of consulting and technology in an interview on February 18, 2023. This implies that banks need to partner with other players in the digital ecosystem to expand their reach, offer new services, and remain relevant to their customers. In China, with the increasing popularity of digital finance and the emergence of new players such as Alipay and WeChat Pay, traditional banks must establish alliances and partnerships to compete effectively and meet the changing needs of their customers.

In China, Fintechs are playing a significant role in serving previously excluded segments of the population who were not covered by the traditional financial system or microfinance (Kong & Loubere, 2021). This is a positive development in a country where inequality and exclusion from the financial system are prevalent.

Financial institutions should view Fintechs as potential allies and specialized service providers in areas where they cannot serve. This collaboration could lead to a win-win situation for both parties.

4.3. The Projected Future of Digitization in Microfinance

The process of digitization is anticipated to democratize financial services, but the extent to which this will occur will depend on the specific type of bank and the particular market segment it aims to target.

"What digitalization does is expand financial services from physical locations to every household with internet access, thereby promoting financial inclusion" (Interview with an expert in digital product management, February 19, 2023).

A digital bank has the potential to collect significant amounts of valuable data, not only related to credit but also the individual's lifestyle (Laamanen, Wahlen, & Campana, 2015). As a result, the digital realm can track the user's movements, enabling the creation of a customer journey map that can enhance the user experience and increase synergy with customers.

"We don't want to sell you a loan just to meet our placement targets; we aim to provide you with products and services that address your needs" (Interview with an expert in digital product management, February 16, 2023). In comparison to a physical office, the cost per customer served is significantly lower for digital products. Furthermore, the information generated through these products allows banking institutions to move towards becoming a data-driven company. This shift would enable the development of credit rating methods for microcredit based on user behavior instead of fixed parameters, which is currently the case (Gabor & Brooks, 2017). As a result, credit granting policies could be revised, particularly for higher risk segments.

4.4. Digitization's Impact On Microentrepreneurs

Microentrepreneurs are the owners of businesses that typically have annual sales not exceeding $100,000 (Pedraza, 2021). They engage in various activities such as selling groceries, clothing, stationery, handicrafts, and other small-scale ventures. The microenterprise sector, which is the base of the economic pyramid, consists of individuals with limited financial opportunities and academic training. As a result, their businesses are often managed intuitively and empirically. Depending on whether the activity is formally registered or not, their credit capacity is also restricted.

In China, microcredit is generally associated with higher interest rates compared to other types of loans. This is due to the higher risk involved in lending to individuals or small businesses with limited financial resources and credit history (Zhang, Daim, & Zhang, 2018). Despite this, there is a growing demand for microcredit, especially in rural and underdeveloped areas where traditional banks have limited presence.

To meet this demand, microfinance institutions and Fintech companies have emerged to cater to this customer segment. However, some microentrepreneurs may still be excluded due to their limited capacity for indebtedness and credit history. In such cases, they may resort to informal lenders who often charge exorbitant interest rates, exacerbating their financial difficulties.

According to the National Bureau of Statistics, micro and small enterprises accounted for 99.8% of all enterprises and employed 80% of the workforce in China in 2020 (Pedraza, 2021). Therefore, the microenterprise sector is a vital component of the economy and a potential driver of economic growth. It is crucial for financial institutions and policymakers to develop sustainable and inclusive financial solutions to support this sector's development while safeguarding their financial well-being.

The interviewed financial operators serve microentrepreneurs as their clients, with a balanced gender representation among the portfolio. In many cases, the microentrepreneur's profile is evaluated as a family unit. To become a client, microentrepreneurs must meet certain conditions, including being between the ages of 21 and 70, having a business that is at least 6 months old (depending on the type of microcredit), having an acceptable payment record in previous operations as assessed by the credit bureau or other IFIs or commercial houses, and providing identification and basic service information (Berge, Bjorvatn, & Tungodden, 2015).

While Cooperatives, Mutual Members, and some small Banks provide care for microentrepreneurs, a significant number of people remain unbanked, particularly in rural areas. These individuals have limited access to financial services and will continue to be unattended to if the traditional Financial System does not identify a business opportunity in this niche (Sinha, 2020).

"With the increasing adoption of digital technology and the rise of Fintech companies in China, banks have the potential to tap into the blue ocean of unbanked people and reduce their operating costs significantly. However, only a few banks have recognized this opportunity so far. Fintech companies have been at the forefront of serving this customer segment and driving financial inclusion. As the competition intensifies, more banks are likely to follow suit and develop innovative solutions to cater to this market." (Interview with an expert in digital product management, February 27, 2023).

4.5. Product Development And Digitization

The microfinance portfolio offers various types of financing, including microcredit and its subsegment called simple accumulation microcredit. The credit placement also involves the acquisition of savings and current accounts, as well as the sale of life and tax credit insurance. Prior to the COVID-19 pandemic, some degree of digitization was already present in microfinance operations in China. Web-based disbursements allowed customers to register as mobile banking users (Umar & Danlami, 2022).

However, the pandemic and subsequent confinement measures highlighted new needs for micro-entrepreneurs, prompting banks to improvise new digital solutions. To qualify for these operations, a mobile application was developed for executives to pre-qualify and approve the operation during field visits, with disbursement management that still executed at the agency. This tool minimized physical contact, document exchange, and significantly optimized customer waiting time. It is a differentiating value proposition for microentrepreneurs who would otherwise lose the opportunity to do business if they had to spend time traveling to the bank and completing paperwork. Although digitization has promised to optimize response times in China, it is clear that digitization is more focused on external image than fully digitizing internal processes within IFIs (Mi et al., 2023).

Microcredit is a crucial financial product in China that serves a significant number of microentrepreneurs. The loan amounts range from 500 to 20,000 yuan, and the average placement amount is between 2,500 and 3,000 yuan (Zhang & Chen, 2019). The loan amount is determined by the advisors in the area based on the activity's potential, the credit capacity, and validation of the client's declaration.

However, several obstacles hinder the growth of microcredit in China, such as the qualification of the credit bureau, the stability and age of the business, the age of the applicant, and the financial cost. Despite these limitations, microcredit remains an essential product that will continue to thrive in China as long as there is a significant volume of microentrepreneurs who constantly require financial leverage provided by the IFIs and the cooperative system to support their activity (Li, 2019).

To improve the intermediation process and make the product more accessible to the most vulnerable segments, efforts can be made towards digitization. As seen in Bolivia, digitization has significantly improved the efficiency of intermediation, leading to economic growth, less inequality, and reduced poverty. Therefore, adopting digitization in microfinance can bring significant benefits to China's economy and the microentrepreneur segment, which plays a vital role in driving economic development in the country.

4.6. Barriers To Digitization Expansion

According to the 2021 Global Findex, account ownership among adults in China has increased from 54% in 2011 to 80% in 2021 (Clark, Metz, & Casher, 2022). However, there are still challenges to deepening digitization in China. To propose effective digitization strategies, experts suggest considering various variables, such as the socioeconomic stratification of the population in major cities like Beijing, Shanghai, and Guangzhou, where citizens' behaviors can differ significantly.

It is also necessary to consider the living conditions in rural areas, which account for a significant portion of the population. Access to the internet and mobile telephony in rural areas is often lower than in urban areas, and many people in rural areas prefer to keep money at home. Digitizing this unbanked segment will require them to first become banked by popular and solidarity financial sector organizations, which can then train them towards digitization. Although account ownership in China is relatively high, there is still room for improving access to financial services and deepening digitization to reach more segments of the population (Zhang & Zhao, 2021).

One challenge to digitization in China is the lack of knowledge about digital banking, with some users believing it to be less secure than traditional banking. However, with the security measures provided by technology, digital banking can actually be more secure. Another obstacle is the absence of regulatory policies that promote the development of Fintech and the generation of banking ecosystems. Experts emphasize that without government support, financial inclusion cannot be achieved.

"You cannot advocate for financial inclusion and make this happen without one of the most important things, which is that the Government wants it to happen" (Interview with an expert in the management of digital products, February 22, 2023).

Similarly, not providing all citizens in China with equal opportunities to access the financial market is considered a market failure. Moreover, it is crucial to consider the formation and acceptance of digital financial services. If users do not perceive them as meeting their daily needs, it will be challenging to gain their acceptance.

Operators in China have identified the following factors as determinants for digitalization: the age of customers, especially the baby boomer generation, who may have slower technology adaptation and less interest in digital financial services. Additionally, education level plays a critical role, as some clients may have limited education or may not know how to sign. These factors align with the expert's view on the lack of government strategies to promote financial inclusion through education and training.

5.0. CONCLUSION

This research examined the relationship between the digitization of microfinance and financial inclusion. The study identified some barriers that hinder the optimal adoption of digitization. The research was conducted through focus groups and in-depth interviews with microfinance executives and financial digitization experts in Shanghai. The study found that there has been a substantial increase in the number of fixed and mobile internet accounts per hundred inhabitants in the last decade.

However, this alone may not be sufficient for the Chinese market to adopt digitization in a disruptive manner. The COVID-19 pandemic has been a major factor driving the trend towards digital in the last years. Additionally, it is estimated that digitization in the rural sector may not be feasible in the short or medium term if banking is not first done in person. This could lead to the end of the cooperative system as long as it is financially viable. Similarly, banks may not target vulnerable segments if it does not result in an economic benefit.

The research has also found that in China, the absence of public policies for the promotion of microfinance and government support has weakened the context to promote financial inclusion. Certainly, the lack of regulations has also limited the expansion of Fintech companies. These financial technology ventures should be considered within the strategies of the government to promote financial inclusion and the achievement of the SDGs. Future research could address the relevance of the legal framework to stimulate technological ventures that allow the entry of new business models and, in alliance with banks, can serve the most vulnerable sector of the population and thus achieve the development of financial inclusion solutions.

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