

A Review of Financial Inclusion in India: Policies, Practices, and Challenges

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Abstract

A financial inclusion serves as an effective tool for addressing social issues and promoting economic development. Given the limited research on this topic in emerging economies, it is essential to examine the existing policies, practices, and challenges related to financial inclusion in India to develop innovative solutions for improvement. This study intends to evaluate the current landscape of financial inclusion in India by analyzing its policies, practices, and hurdles. The results indicate that around 44% of adults in developing nations do not have access to financial services, with only a few countries achieving notable advancements through various policies and practices. These include mobile banking offerings, compatibility with mobile money systems, enhanced local connectivity, investment in human capital development, and the digital transformation of public services aimed at fostering digital financial inclusion.

Keywords: financial inclusion; policy; practices; challenges

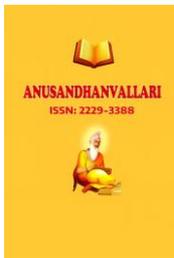
Introduction

To attain economic resilience and independence, it is essential for any economy to foster conducive conditions for individuals, families, and private entities. The establishment of robust financial services and a comprehensive network of bank branches serves as crucial drivers for developmental and growth-oriented initiatives. Financial inclusion refers to the accessibility of an economy's financial system to all its members. Given that banks are pivotal in delivering most financial services, banking inclusion can serve as a proxy for overall financial inclusion. Therefore, within the banking sector, financial inclusion pertains to the broadening of banking services across diverse population segments.

The Rangarajan Committee (2008) defines financial inclusion as ensuring timely access to financial services and suitable credit when required by vulnerable populations, including marginalized groups and low-income households, at an affordable cost.

India boasts a well-organized banking framework that addresses the financial requirements of both individuals and families while simultaneously aiding the nation's growth and development. To fulfill these financial needs effectively, substantial reforms and continuous oversight are necessary to sustain modern banking practices, encourage healthy competition, and promote financial inclusion. The Indian banking sector comprises the Reserve Bank of India (RBI), which acts as the central bank, along with various commercial and cooperative banks.

Bank nationalization leads to a major transformation in the focus of banking from catering to a select class to serving the broader population. The establishment of regional and rural banks aims to offer financial services to marginalized communities. An inclusive financial system is crucial for all nations for several reasons: firstly, it enables the efficient allocation of productive resources; secondly, it significantly improves financial management; and thirdly, it reduces reliance on informal funding sources, such as predatory moneylenders in rural



areas who may exploit their clients. Consequently, an inclusive financial framework enhances both efficiency and welfare by promoting secure saving practices while providing a diverse array of financial services.

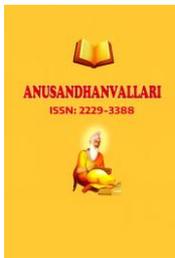
In India, where 65% of the populace resides in rural areas and many lack access to essential financial services, addressing this issue has become imperative. The Indian government has tasked the Reserve Bank of India with implementing measures that foster inclusive growth. Financial inclusion can also be described through its negative counterpart—financial exclusion—which denotes the inability to access basic financial services appropriately. This exclusion can stem from various factors such as accessibility issues, high costs, inadequate marketing efforts, unfavorable conditions, or self-exclusion due to negative experiences or perceptions. Among those disproportionately affected by financial exclusion are the impoverished populations who faced heightened challenges during the COVID-19 pandemic.

The disadvantaged, especially the elderly, often lack essential digital resources necessary for accessing or utilizing financial services, which frequently relegates them to the status of unbanked individuals as they are frequently viewed as high-risk by various financial institutions. Over the past decade, progress in financial inclusion has enabled governments to extend support to impoverished populations; however, the COVID-19 pandemic presents both significant challenges and opportunities. For instance, while the pandemic and its related lockdowns and mobility limitations have led to an increase in digital financial inclusion, some microfinance institutions and other lending organizations are experiencing a rise in non-performing loans, constraining their capacity to provide additional credit that could assist those affected by the pandemic's adverse effects. (Mhlanga 2022)

Despite their crucial contribution to national economic development, businesses operating within the informal sector often face barriers in obtaining financial services due to their informal nature. The informal economy accounts for over 60% of the global workforce, with more than 85% situated in Africa. Financial service providers tend to view this sector as undesirable and unworthy of loans and other financial products. In light of the ongoing economic crisis triggered by COVID-19, digital technology has become vital as it enables these businesses to reach a broader customer base and offer their products for extended periods without requiring physical visits.

The government has directed more funding toward larger enterprises compared to smaller ones in response to the profitability and sustainability challenges posed by the COVID-19 crisis. Smaller businesses, which typically have greater funding needs, have been adversely affected due to this preferential treatment towards larger firms. Companies like Checkers are facilitating this transition by adopting information and communication technology (ICT) as they shift from physical operations to online platforms, helping consumers mitigate risks associated with overstocking and subsequent revenue losses. Consequently, many small, medium, and micro-enterprises (SMMEs) struggle to achieve their growth objectives because their owners often lack essential business acumen and ICT skills required for viability and sustainability. (Gqoboka et al., 2022; Wendt et al., 2021; Anakpo et al., 2023)

This study is pertinent as it enhances comprehension of financial inclusion along with the policies and behaviors that promote it. The insights obtained will guide innovative digital strategies aimed at integrating marginalized groups into the financial services framework—an essential component for fostering a saving culture among semi-urban and rural communities as well as previously unbanked populations. Moreover, individuals from excluded groups may gain empowerment through improved access to financial services, potentially leading to a broader impact on the development and execution of other initiatives. Ultimately, this study's comprehensive examination of financial inclusion policies and practices will inform future research endeavors and discussions on this subject matter.



Literature Review

Rangarajan C. (2008). "Report of the Committee on Financial Inclusion". Financial inclusion refers to the initiative aimed at providing access to financial services and adequate credit for vulnerable populations, including marginalized and low-income groups, in a timely manner and at an affordable cost.

As highlighted by Mandira Sharma and Jesim Paise (2008), achieving financial inclusion is a primary goal within the development strategies of many countries. The correlation between human development and financial inclusion is generally strong, with few exceptions noted. Income levels tend to have a positive relationship with financial inclusion. Additionally, factors such as physical infrastructure, electronic connectivity, and access to information—illustrated through metrics like road networks and usage rates of telecommunication and internet services—play a significant role in enhancing financial inclusion.

Michael Chibba (2009) states that "Financial Inclusion serves as a strategy for inclusive development and poverty alleviation, forming part of the evolving FI-PR-MDG nexus." In light of current global challenges, promoting financial inclusion may serve as a more vital incremental approach to achieving the Millennium Development Goals (MDGs) than it has in recent times.

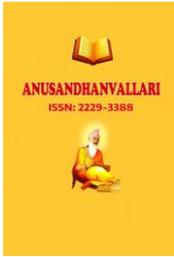
Raghuram G. Rajan (2009), in "A Hundred Small Steps - Report of the Committee on Financial Sector Reforms," characterizes financial inclusion as the principle of universal access to a diverse array of financial services at equitable prices. This encompasses not only banking products but also insurance and investment offerings.

Oya Pinar Ardic et al. (2011) noted that their research utilizes the financial access database from CGAP and the World Bank group to quantify the number of unbanked adults globally, examine access to deposit and loan services, assess the reach of retail networks, and evaluate the status of financial inclusion mandates worldwide. The results indicate that significant efforts are required to enhance financial inclusion, with 56% of individuals globally lacking access to formal financial services.

Richa Aggarwal (2014) addresses the challenges and opportunities related to financial inclusion in India, which is home to the largest rural population in the world. Financial inclusion is a contemporary term that encompasses strategies aimed at fostering banking practices among rural communities. It can be defined as making financial services available at affordable rates to various low-income and marginalized groups within society. An inclusive financial system is essential for enhancing efficiency and well-being by facilitating secure saving habits and providing a wide range of effective financial services.

Thankom Arun and Rajalaxmi Kamath (2015) assert that achieving financial inclusion ranks as a primary policy goal for many nations. Their round table discussion offers both global and regional perspectives on policies and practices concerning financial inclusion. By employing macro data, this collection illustrates the variety of initiatives aimed at promoting financial inclusion while highlighting the need for an adaptive approach. Additionally, insights specific to regions such as India, South Africa, and Australia regarding their respective policies and practices surrounding financial inclusion are presented in this roundtable discussion.

Nirvikar Singh (2017) outlines several core concepts related to financial inclusion, including access to banking services, digital payment systems, and financial literacy. He also highlights markets for health insurance, crop insurance, agricultural credit, small business financing, and microcredit/microfinance. The paper examines various empirical and institutional research focused on these aspects of financial inclusion in developing nations. Additionally, it reviews recent studies conducted in India by the International Growth Centre that tackle these specific financial inclusion challenges. Finally, the report addresses policy implications and potential avenues for future research. This overview emphasizes the significance of social and economic contexts, the necessity to account for behavioral biases linked to time and risk scenarios, the interplay among different facets of financial



inclusion, the critical nature of policy design specifics, and our limited understanding of many underlying factors influencing financial market operations.

Wen, L.Z., and Guy, H.A. (2019) note that developing countries—especially those in Africa—have experienced substantial improvements in financial services recently. Innovative products and delivery methods have reached financially excluded and marginalized populations. Over recent years, no region with identifiable digital financial services (DFSs) has contributed more significantly to enhancing financial inclusion than Africa. According to 2017 Global Findex data, Africa boasts the highest percentage of mobile money accounts at 20.9% of its adult population; this is followed by South Asia at 4.2%, Latin America and the Caribbean at 5.3%, and other parts of the world at 4.4%. Furthermore, in 2017, 34.4% of adults in Sub-Saharan Africa engaged in digital payments—an increase from 26.9% in 2014. This growth encompasses a broad spectrum of financial services such as insurance products, cross-border transfers, credit options, savings facilities, along with account ownership and basic transactional activities.

Buteau et al. (2021) found that despite a rise in financial access over the past decade, a significant portion of the population remains unbanked or underbanked. In the United States particularly disadvantaged communities—including low-income households and rural residents—often face challenges when trying to utilize digital banking services. These challenges include limited access to digital infrastructure, insufficient financial literacy, and concerns regarding data security. Tackling these issues is essential to ensure that digital banking truly fosters inclusive finance rather than exacerbating existing disparities.

Ogboye et al. (2022) highlight the critical role of comfort in digital banking for enhancing consumer satisfaction, noting that factors such as speed and ease of use significantly influence adoption rates. Similar trends observed in the United States suggest that innovations in fintech and seamless user experiences greatly impact customer decisions. By fostering regulatory innovation and investing in digital literacy, financial institutions can address existing gaps and boost economic engagement.

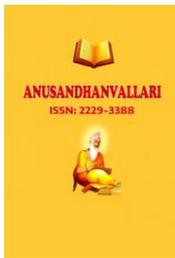
Patel and Satapathy (2023) assert that fintech and digital finance facilitate access to financial services for unbanked communities. This accessibility helps lower transaction costs while promoting investment in traditional banking infrastructure.

Jameaba (2023) highlighted that the implementation of these technologies can enhance the security, transparency, and efficiency of financial transactions. For instance, blockchain offers a decentralized structure that mitigates the risks of fraud and operational inefficiencies. Additionally, data analytics allows financial institutions to more accurately evaluate creditworthiness, thereby improving loan accessibility for consumers and small businesses.

Lottu et al. (2023) analyze the journey toward digital banking innovation within the United States, underscoring the importance of mobile banking applications, contactless payment methods, artificial intelligence, and blockchain technology. Their findings reveal how market dynamics, regulatory conditions, and technological advancements have influenced the landscape of digital banking in America.

Williams (2023) explores the impact of financial inclusion and digital innovations on economic growth, specifically examining how digital technologies broaden access to financial services. Despite this progress, underbanked populations in the United States continue to face challenges related to economic disparity, insufficient digital literacy, and trust issues with banking entities.

Natsir et al. (2023) explore the impact of financial knowledge on financial literacy and inclusion by examining the connection between these concepts and the emergence of innovative digital services. Their research highlights the critical role that financial education initiatives play in encouraging the adoption of digital services.



In contrast, Cnaan et al. (2023) present a warning based on examples from rural India, where the shift to digital banking and cashless transactions has not necessarily led to greater financial inclusion. Their results stress the importance of financial knowledge and internet accessibility as key factors for successful digital banking, while also pointing out the potential exclusion of marginalized communities if these challenges remain unaddressed.

Ibeh et al. (2024) emphasize the significance of business analytics and decision science in modern strategic decision-making, noting how advanced analytics can enhance financial literacy, inform strategic choices in digital banking, and support efforts towards improved financial inclusion.

Islam and Mia (2024) explored the swift integration of digital payment systems and blockchain technologies in Bangladesh, shedding light on how emerging economies utilize digital solutions to enhance financial inclusion. Their research revealed a significant correlation between access to a wider array of financial services and perceptions of safety. The introduction of global service options—such as affordable digital accounts, mobile-based financial education programs, and AI-driven financial planning applications—has the potential to boost participation in digital banking among marginalized groups in the United States.

Imuan et al. (2024) examined the disparities in American banking related to digital access, highlighting that factors such as wealth inequality, geographical location, and technological proficiency continue to affect financial inclusion. Their results emphasize the importance of bridging connectivity gaps and enhancing digital literacy as essential steps toward fostering equitable financial services across diverse communities.

Mhlongo et al. (2024) contend that digital banking plays a vital role in enhancing financial inclusion by broadening access to financial services, reducing transaction costs, and fostering economic growth. Nevertheless, the report underscores various challenges such as digital inequalities, regulatory concerns, and data privacy matters.

Reviews of current literature reveal a lack of research focused on financial inclusion policies and practices, along with the challenges they encounter in India. Consequently, this study is essential for providing deeper insights into the strategies and practices adopted by developing nations in advancing financial inclusion and identifying obstacles to it, ultimately aiming to uncover innovative solutions for improvement.

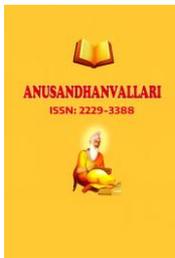
Research Methodology

This research utilizes secondary data sourced from Google Scholar, previously conducted surveys, published reports, and related literature.

Policy

The findings of the study carry important policy ramifications for various governments, legislators, participants in the financial sector, and developmental institutions such as the World Bank, Indian Development Bank, and United Nations Development Programme. In recent years, the international policy organization has focused on enhancing access to financial resources as a key objective for both the banking sector and overall economic advancement. The G-20 made its initial commitment to promoting a financial inclusion strategy in 2008, followed by the establishment of the Global Partnership for Financial Inclusion in 2010 to advance this aim. Additionally, the Alliance for Financial Inclusion (AFI) was launched in 2008 as a collaborative platform for governments from emerging markets.

The AFI's Maya Declaration mechanism obliges countries to make explicit governmental commitments towards engaging in financial intermediation. Consequently, numerous nations have initiated economic inclusion



programs driven by these global initiatives alongside local dynamics. Certain financial innovations could be utilized within the financial sector to enhance the effectiveness of state-citizen interactions. Many Asian governments have historically faced challenges related to efficient tax collection, public service delivery, and social spending. Estimates suggest that digitizing government payments could generate approximately 1% of GDP for most countries.

When effectively executed, significant improvements can be realized in tax systems and compliance, targeting social programs, and managing public finances through current transaction data combined with private information. Smart contracts—designed to facilitate, oversee, or enforce contract negotiations or performance—hold promise for improving public procurement processes. As is true with existing fiscal operations, successful systems will need measures that safeguard privacy while minimizing opportunities for fraudulent activities or evasion.

Fintech requires investments in both hard and soft infrastructure to nurture a rapidly advancing digital landscape. Hard infrastructure encompasses businesses' investment needs in internet connectivity and energy supply to harness technological advancements effectively. Conversely, soft infrastructure pertains to necessary legislation that fosters a beneficial corporate environment and encourages talent development.

Policymakers in India face several trade-offs when determining funding allocations for these initiatives. Projections indicate that physical infrastructure investments are already substantial and demanding; however, increasing government debt constrains public financing options. Bridging significant gaps in a nation's physical infrastructure necessitates collaboration with the private sector to secure financing or service provision ensuring adequate energy supply and internet connectivity.

Moreover, investments in soft infrastructure must navigate the ongoing tension between rapid innovation and slower-moving policies. There exists a trade-off between fostering swift development—which offers considerable potential economic benefits—and diligently addressing risks associated with oversight and regulation aimed at maintaining financial integrity and stability.

Practices

The COVID-19 pandemic in 2020 underscored the importance of innovation within the financial services sector. Initially, restrictions on movement and the shutdown of bank branches across various nations emphasized the necessity for digital payment solutions and online banking. Additionally, many small and medium-sized enterprises (SMEs) in developing countries continue to compensate their employees through cash and cheques. However, e-wallets can be effectively utilized for these transactions to support populations that are unbanked and reliant on cash. For instance, in Jordan, the government encouraged citizens to use digital wallets for salary payments and purchases. The Central Bank of Jordan (CBJ) has authorized seven telecom and payment service providers to offer these wallets (Ayadi, R.; Shaban, M. 2020).

To promote acceptance of digital payments by service providers and retailers, the CBJ launched Mobile Money for Resilience (MM4R), part of a COVID-19 Response Challenge Fund initiative. One local service provider experienced a remarkable 300% rise in applications for digital wallet accounts during the initial month of the pandemic. These initiatives led to a substantial increase in transaction volumes—exceeding 36.5 million JOD—and over 190,000 new wallet registrations between late March and late April 2020. Additionally, the government announced plans to deploy roaming groups nationwide to educate citizens about using digital wallets, emphasizing the critical role of financial literacy in ensuring sustainable transaction practices.

In recent years, the growth of digital banking services has attracted considerable interest from various stakeholders, particularly politicians and academics, as a strategy for achieving financial inclusion. The availability of digital payment channels, internet-based remittance systems, and smartphone technologies has greatly enhanced access to financial institutions. The promotion and utilization of these digital services could potentially influence daily financial behaviors and contribute positively to economic development within societies. Financial inclusion is viewed as a transformative factor in numerous developing countries with the potential to reduce poverty while fostering a more inclusive financial environment. Despite its recognized importance for development goals, Bangladesh struggles with providing broader access to financial institutions.

According to the World Bank Group (WBG), Bangladesh ranks among twenty-five nations where 73% of the world's economically disadvantaged individuals reside under the Universal Financial Access framework (UFA). A recent report from Financial Inclusion Insights (FII) regarding Bangladesh revealed that 47% of its population engages with economic activities via digital payments (17%), banks (5%), or non-bank financial institutions (23%). Furthermore, it indicated that less than one-third of women (32%) possess fully functional payment systems compared to 56% of men (Aziz, A., & Naima, U. 2021).

The adoption rate for financial products is influenced by time factors. Figure 1 illustrates how different nations have embraced various financial products over time. The adoption of a payment product is defined by having an individual transactional account that allows customers to save money as well as receive and spend it—examples include preloaded cards, digital payment accounts, and checking accounts. Payment utilization is categorized into two main types: inflows and outflows. Inflows refer to utilizing payment systems for receiving wages or government assistance in non-cash formats such as remittances; conversely, outflows pertain to employing payment services for cashless transactions like retail purchases or bill settlements along with cashless transfers.

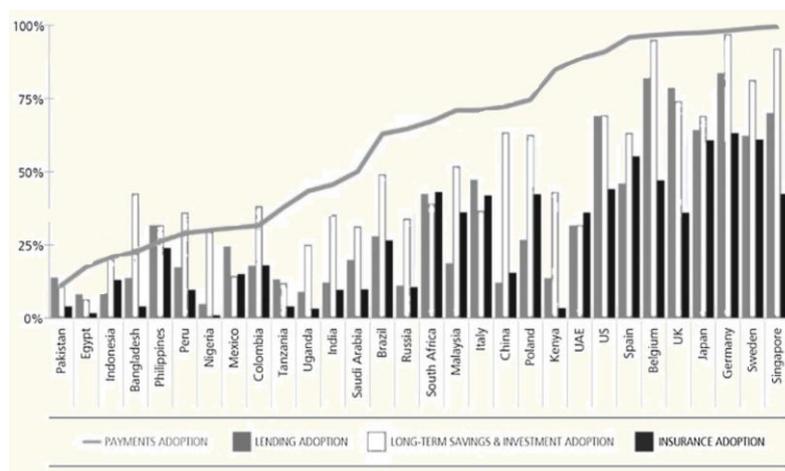
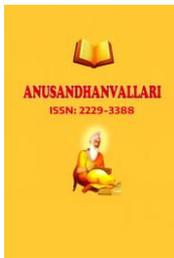


Figure 1. Adoption of financial products by country.

Source: Arun, T.; Kamath, R. (2015)

Figure 1 illustrates that the emerging economy exhibits deficiencies in areas such as payment processing, lending, long-term product adoption, and insurance uptake. This has implications for digital financial inclusion, especially among those without bank accounts. The penetration of payment products surpasses that of other financial offerings across all nations, highlighting that transaction capabilities are the most effective means to enhance global financial inclusion. For instance, a significant portion of the population in these countries possesses only a single payment product, with at least 40% of adults in Kenya and approximately 20% in the United States relying



on it. The increasing adoption of payment products fosters their use as the primary financial instrument over time.**

Certain nations with low adoption figures, such as Peru, Colombia, and Bangladesh, have made noteworthy advancements in payments by offering savings options through microfinance institutions (MFIs). Nevertheless, within these regions, savings accounts often function more like a nominal payment tool since they typically serve as the sole account for individuals to save funds and withdraw regularly for bill payments. Moreover, as these nations progress economically, there will be a necessity to shift focus towards genuine payment systems that facilitate non-cash transactions, akin to those utilized by other countries. While the uptake of payment products remains at an early stage, some usage growth is anticipated moving forward.

Obtaining goods is often motivated by a particular financial necessity, such as receiving a paycheck. Users typically turn to products to meet these needs at a minimum level. Additionally, remittance services can act as an entry point for consumers to discover other offerings. Moreover, digital remittance transactions can reveal valuable consumer insights, like creditworthiness, allowing providers to present additional services. Other factors involve remittances paired with effective digital payment systems aimed at enhancing economic conditions for both consumers and providers. This perspective is reinforced by a notable correlation between the usage of remittance products and the acceptance of lending options, long-term savings and investments, as well as insurance products across the examined countries.

Figure 2 illustrates the four stages of financial inclusion development based on varying levels of adoption. Countries tend to advance through these four distinct periods. Since remittances serve as the most effective means to initiate financial inclusion, the aforementioned phases are defined by how widely payment products are utilized.

The first phase is termed "early days," representing the onset of the process. Here, acceptance of remittance products remains below 50% across all countries, and engagement with other financial products is generally low, often under 25%. Notably, Bangladesh, Peru, and Colombia excel in savings due to a high concentration of microfinance institutions (MFIs).

The second phase, labeled "transitioning," marks a point where payment usage begins to gain traction, exceeding 50% penetration. In this stage, the adoption of one or more financial products starts to accelerate and approaches that of remittance acceptance; for instance, there is an uptick in extended savings and investments in China and credit usage in Italy.

The third phase is identified as "ready payments," characterized by remittance adoption reaching a significant threshold of over 75%. At this level, countries are anticipated to have adequate financial infrastructure in place to facilitate higher usage rates of various additional products. The established benchmarks vary by product category: loans exceed 60%, long-term savings or investments surpass 70%, and insurance reaches over 45%. This reflects typical performance patterns where loan uptake progresses while investments and insurance follow suit.

The final and most advanced stage features widespread use of remittances. At this point, consumption levels for all other financial products are expected to rise significantly. Countries such as Sweden, Germany, and Belgium exhibit predictable trends in this regard; meanwhile, Singapore and Japan closely follow suit. The United Kingdom leads in financing options as well as long-term savings and investment opportunities but lags behind in terms of insurance offerings. This discrepancy may be attributed to specific market factors that warrant further examination.

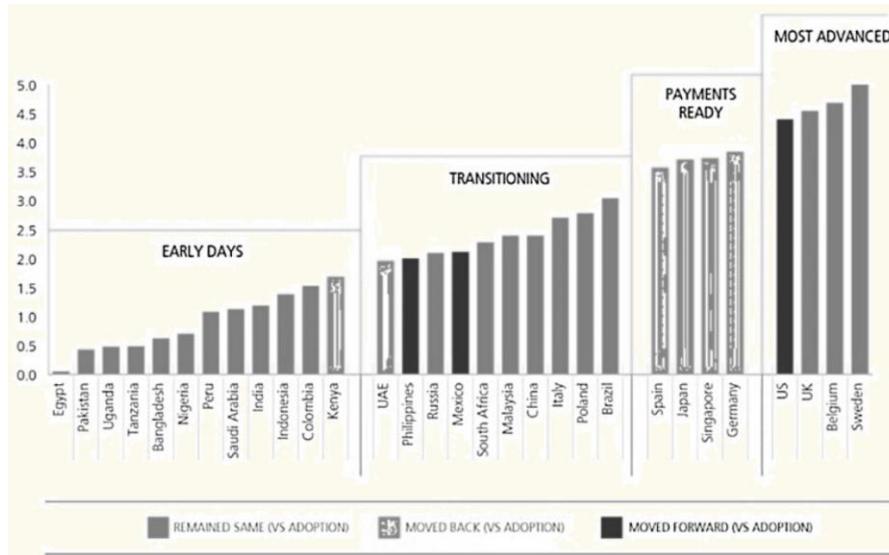


Figure 2. Four stages of financial inclusion progression based on adoption

Source: Arun, T.; Kamath, R. (2015)

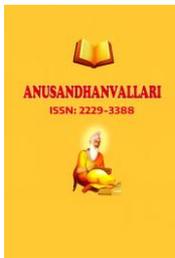
Furthermore, it is essential to clearly articulate the reasons for adoption. While product deployment serves as a crucial first step towards financial inclusion, the actual usage and the degree of that usage are equally significant. As mentioned earlier, utilizing remittance products can help customers become familiar with and adopt new offerings. Nevertheless, having a payment instrument does not necessarily equate to its use; not everyone who owns such an instrument engages it for capital transactions. Therefore, efforts should be made to promote usage actively. In all the countries studied, the number of individuals who utilize a remittance product to receive any capital flows is lower than the number of adults who possess one. This gap varies between different nations.

Challenges

According to Ozili, P.K. (2020), while financial inclusion offers numerous advantages, it also presents various obstacles and debates within the realm of policymaking. These conflicts are linked to the daily challenges faced by policymakers and help to clarify why nations adopt diverse approaches to financial inclusion. The following section will address the key challenges involved.

Absence of digital infrastructure and services: One significant barrier to the implementation of digital applications in developing regions, particularly in Africa, is the lack of adequate digital infrastructure. This encompasses not only network connectivity for digital devices but also the availability of software and applications. Reports indicate that over fifty percent of the global population lacks access to a network. (State of Connectivity 2015)

"Inactive users of financial services" issue: The issue of inactive users is increasingly becoming a focal point in policy debates surrounding financial inclusion. Individuals can either engage as active participants or remain inactive within the formal banking system. Despite substantial initiatives aimed at incorporating those previously excluded into this system, these individuals might still turn into passive users of financial products and services. They may open formal accounts yet decline to utilize card payments; additionally, they often refrain from making deposits into their official accounts and do not conduct any transactions through them.



Banks do not cooperate: Another concern is that financial institutions might hesitate to collaborate with governments in promoting financial inclusion through banking services. Prior to launching financial inclusion efforts, banks typically conduct internal cost-benefit assessments. If the expenses outweigh the potential benefits, banks may be reluctant to engage in such initiatives, particularly if the government is not prepared to subsidize these costs. In nations where both private and state-owned banks operate, private banks may shy away from participating in financial inclusion programs under the assumption that the government will rely on its public-sector banks to meet its financial inclusion goals. Although banking regulators mandate that all banks take part in the national financial inclusion strategy, many opt to utilize government funds while permitting their banking services to support the program's objectives. In some instances, private banks might only engage with the public economic inclusion initiative for an initial two-year period before gradually withdrawing due to increasing costs and sustainability concerns, echoing experiences observed in India. The Indian government established the Pradhan Mantri Jan-Dhan Yojana (PMJDY) as a framework for financial inclusion within the country. During the first two years of this program, both commercial and government banks saw a significant number of Jan Dhan account holders; however, by the third and fourth years, there was a notable decline in Jan Dhan account registrations among private-sector banks.

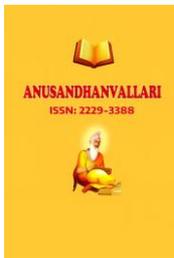
Lack of digital skills: People in India face challenges in effectively leveraging modern technologies and deriving value from the ICT or internet sector, primarily due to insufficient digital literacy. While physical access to the internet is essential, Aziz and Naima (2021) argue that a major obstacle to fully engaging in the digital economy is the lack of necessary skills. For instance, less than 50% of Indian internet users have acquired the latest skills needed to keep pace with the rapidly evolving digital landscape. It is important to highlight that maximizing the benefits of digital technology necessitates proper education and skill enhancement.

Conclusion

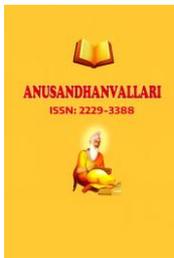
Financial inclusion serves as a promising tool for addressing socioeconomic challenges by providing financial services to underserved populations and fostering economic development. Due to the limited research available and our partial comprehension of this topic, this study seeks to enhance our understanding of the strategies and initiatives employed by developing nations in the realm of digital finance, as well as the obstacles hindering digital financial inclusion, with the goal of pinpointing innovative solutions for improvement. Our research indicates that roughly 44% of adults in developing countries lack access to financial services, with only a minority making notable progress through policies and practices such as mobile money interoperability, enhanced connectivity, human capital development, digitization of public services, and advancing digital financial inclusion. Additionally, the results highlight several barriers to achieving digital financial inclusion, including inadequate practical digital policies from governments, infrastructural deficiencies, issues related to inactive users of financial services, insufficient cooperation from banks, difficulties in identifying marginalized individuals, ineffective public-private partnerships, weak consumer protection measures, and low levels of digital financial literacy.

References

- [1] Rangarajan C (2008), "Report of the Committee on Financial Inclusion"
- [2] Mhlanga (2022), D. COVID-19 and digital financial inclusion: Policies and innovation that can accelerate financial inclusion in a post-COVID world through fintech. Afr. J. Dev. Stud. 2022, 2022, 79.



- [3] Gqoboka, H.; Anakpo, G.; Mishi, S. (2022) Challenges Facing ICT Use during COVID-19 Pandemic: The Case of Small, Medium and Micro Enterprises in South Africa. *Am. J. Ind. Bus. Manag.* 2022, 12, 1395–1401.
- [4] Wendt, C.; Adam, M.; Benlian, A.; Kraus, S. (2021) Let's Connect to Keep the Distance: How SMEs Leverage Information and Communication Technologies to Address the COVID-19 Crisis. *Inf. Syst. Front.* 2021, 24, 1061–1079.
- [5] Anakpo, G.; Phuthumani, S.; Mishi, S. (2023) Digital Disparity between Formal and Informal Sectors: The Case of South Africa. *Afr. Agenda* 2023, 20, 4–5.
- [6] Anakpo, G.; Nqwayibana, Z.; Mishi, S. (2023) The Impact of Work-from-Home on Employee Performance and Productivity: A Systematic Review. *Sustainability* 2023, 15, 4529.
- [7] Wen, L.Z.; Guy, H.A. (2019) Factors and Barriers to Adoption of E-Commerce: The Case of Developing Countries. *J. Entrep. Organ. Manag.* 2019, 8, 265.
- [8] Richa Aggarwal (2014), "Financial Inclusion in India: Challenges and Opportunities", *International Journal of Research (IJR)* Vol-1, Issue-4, May 2014. Ms.
- [9] Thankom Arun and Rajalaxmi Kamath (2015) Financial inclusion: Policies and practices, *IIMB Management Review*, Volume 27, Issue 4, Pages 267-287
- [10] Nirvikar Singh (2017) *Financial Inclusion: Concepts, Issues and Policies for India*, UC Santa Cruz Previously Published Works.
- [11] Mandira Sharma and Jesim Pais. (2008). *Financial Inclusion and Development: A Cross Country Analysis*, Indian Council for Research on International Economic Relations,
- [12] Michael Chibba (2009) *Financial Inclusion, Poverty Reduction and the millennium Development Goals*, *European Journal of Development Research* Vol. 21
- [13] Raghuram G. Rajan (2009), "A Hundred Small Steps - Report of the Committee on Financial Sector Reforms".
- [14] Oya Pinar Ardic Maximilien Heimann Nataliya Mylenko. (2011). *Access to Financial Services and the Financial Inclusion Agenda Around the World*, The World Bank, pp1-17.
- [15] Buteau, S., Rao, P., & Valenti, F. (2021) Emerging insights from digital solutions in financial inclusion. In *CSI Transactions on ICT* (Vol. 9, Issue 2, p. 105). Springer Science+Business Media. <https://doi.org/10.1007/s40012-021-00330-x>
- [16] Ogboye, K. S., Akande, F. I., & Kwarbai, J. (2022). Determinants of digital banking convenience and customer satisfaction of selected deposit money banks in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 10(2), 1-30. <https://doi.org/10.37745/ejaaf.13/vol10no2 pp.1-30>
- [17] Patel, A., & Satapathy, S. K. (2023). Empowering digital banking services and enhancing financial inclusion using smart and robust fintech software solutions. In *2023 World Conference on Communication & Computing (WCONF)* (pp. 1-9). IEEE. <https://doi.org/10.1109/WCONF58270.2023.10235246>
- [19] Jameaba, M.-S. (2023). Digitalization, emerging technologies, and financial stability: Challenges and opportunities for the Indonesian banking sector and beyond. *Muyanja Ssenyonga Jameaba*. <https://doi.org/10.32388/csttyq.3>
- [20] Lottu, O. A., Abdul, A. A., Daraojimba, D. O., Alabi, A. M., John-Ladega, A. A., & Daraojimba, C. (2023). Digital transformation in banking: A review of Nigeria's journey to economic prosperity. *International Journal of Advanced Economics*, 5(8), 215-238. <https://doi.org/10.51594/ijae.v5i8.572>
- [21] Williams, M. (2023). A digital business innovation and financial inclusion: Panacea to Nigeria's economic growth. *International Journal of Innovation and Business Strategy*, 18(2), 49-62. <https://doi.org/10.11113/ijibs.v18.142>



- [22] Natsir, K., Arifin, A. Z., & Ronald, R. (2024) Financial inclusion in the use of digital banking services in Jakarta. *International Journal of Advanced Economics and Business*, 1(4), 2477-2493. <https://doi.org/10.24912/ijaeb.v1i4.2477-2493>
- [23] Cnaan, R. A., Scott, M. L., Heist, H. D., & Moodithaya, M. S. (2023). Financial inclusion in the digital banking age: Lessons from rural India. *Journal of Social Policy*, 52(3), 520-541. <https://doi.org/10.1017/S0047279421000738>
- [24] Ibeh, C. V., Asuzu, O. F., Olorunsogo, T., Elufioye, O. A., Nduubuisi, N. L., & Daraojimba, A. I. (2024). Business analytics and decision science: A review of techniques in strategic business decision making. *World Journal of Advanced Research and Reviews*, 21(2), 1761-1769
- [25] Islam, M. J., & Mia, M. R. (2024). The evolution of payment systems in Bangladesh: Transition from traditional banking to blockchain-based transactions. *Malaysian Journal of Business, Economics and*
- [26] *Management*, 16-25. <https://doi.org/10.56532/mjbem.v3i1.30>
- [27] Ehimuan, B., Anyanwu, A., Olorunsogo, T., Akindote, O. J., & Abrahams, T. O. (2024). Digital inclusion initiatives: Bridging the connectivity gap in Africa and the USA—A review. *International Journal of Science and Research Archive*, 11(1), 488-501.
- [28] Mhlongo, N. Z., Daraojimba, D. O., Olubusola, O., Ajayi-Nifise, A. O., & Falaiye, T. (2024). Reviewing the impact of digital platforms on entrepreneurship in Africa. *International Journal of Science and Research Archive*, 11(1), 1364-1375
- [29] Ayadi, R.; Shaban, M. (2020) Digital Financial Inclusion: A Pillar of Resilience Amidst COVID-19; EMEA Policy Paper; Euro-Mediterranean Economists Association: Barcelona, Spain, 2020.
- [30] Aziz, A.; Naima, U. (2021) Rethinking digital financial inclusion: Evidence from Bangladesh. *Technol. Soc.* 2021, 64, 101509.
- [31] Arun, T.; Kamath, R. (2015) Financial inclusion: Policies and practices. *IIMB Manag. Rev.* 2015, 27, 267–287.
- [32] Ozili, P.K. (2020) Financial inclusion research around the world: A review. *Forum Soc. Econ.* 2020, 50, 457–479.
- [33] State of Connectivity 2015: A Report on Global Internet Access—About Facebook. Facebook. 2016. Available online: <https://about.fb.com/news/2016/02/state-of-connectivity-2015-a-report-onglobal-internet-access/> (accessed on 3 March 2024).