Bridging the Gap: The Role of Financial Inclusion in Promoting Inclusive Economic Growth

SHIVAKUMARA PT
Assistant Professor, Poornaprajna College, Udupi, Affiliated to Mangalore University

Abstract- Based on a multitude of empirical studies from India using household data from large scale pan-India datasets such as the All-India Debt and Investment Survey, Financial Inclusion Index and National Sample Surveys, this paper combines strong econometric evidence using fixed-effects panel regressions, instrumental variable methods and difference-in-differences methods that shows that financial inclusion, as measured by variables such as bank account ownership (inclusion), access to credit and use of digital payments and microfinance have a significant positive effect on indicators of inclusive growth: rural consumption, poverty, female labor force participation, and income inequality where causal effect estimates show that the roll-out of the Pradhan Mantri Jan Dhan Yojana (PMJDY), Aadhaar-linked direct benefit transfers (DBT), and MUDRA loans led to a significant change in financial practices, savings behaviours, and credit access among vulnerable groups, notably among women and rural households evidenced by causal inference methods and large-scale field experiments show that regions that experienced greater financial inclusion growth saw larger gains in per capita income and job creation and at the same time reduced dependence on informal credit and lowered exposure to financial shocks, with such effects being pronounced in states with more developed digital and institutional infrastructure, further confirmed with granular impact evaluations that reveal positive spillover effects between financial literacy, mobile banking adoption and formal credit dependence, thus validating that financial inclusion in India does not work merely as a social welfare tool but is rather a crucial enabler of equitable and sustained economic development which align with the over-arching objectives of inclusive growth and SDGs for that country.

Indexed Terms- Financial Inclusion, Inclusive Growth, Empirical Evidence, Poverty Reduction, Digital Financial Services

I. INTRODUCTION

In the past decade, financial inclusion has achieved the status of a hot button issue for many parts of the world, but particularly in low- and middle-income economies, including India, where extensive literature1 has established that integrating financially underserved segments of the population into the formal financial system not only promotes overall economic growth but, more importantly, stimulates economic development that is sustainable and equitable, using the evidence of stronger resilience and improvement in consumption smoothing, income generating activities, and dexterous allocation for education and health, with few well-known institution-driven consequential initiatives being the Pradhan Mantri Jan Dhan Yojana (PMJDY), with over 500 million opened accounts and the consequent increased penetration of bank branches in low-income populations, especially in rural areas and yet the fact of 1.4 billion adults without a bank account in the world today including 130 million in India remains staggering, with structural barriers such as lack of documentation, weak digital literacy, gender inequalities, and limited access to the formal banking infrastructure in remote geographical locations, forcing many to continue relying heavily on informal credit and thus lacking adequate social protection avenues (Global Findex Database, 2019), which are not only a cause for concern from the point of view of equity of growth and development but raise a very real question about the sustainability of growth models that continue to exclude a significant portion of the population, large sections of whom including women, informal sector workers, and landless farmers remain locked in debt traps, which can only be solved with a different approach to financial access in particular and finance in general, one that is backed by evidence providing insights into not only the effectiveness of such access interventions but their cost-effectiveness too, through various financial innovations such as Aadhaar-enabled direct benefit transfers (DBTs), credit guarantee schemes for micro-enterprises, financial literacy campaigns; and fostered by cutting edge applied technologies spearheaded through systematic empirical methodologies, such as randomized control trials, panel data analysis, and geospatial mapping to monitor their impact on the journey of financial inclusion not being just about the numbers but numbers that must necessarily result in greater wellbeing and welfare to haul India to realize the Sustainable Development Goals (SDGs) within the current decade, the first and foremost one being poverty reduction (SDG 1) but also gender equality (SDG 5), and decent work and economic growth (SDG 8).

Research Questions related to the study

- What empirical evidence exists linking financial inclusion to growth and development?
- Which financial products drive the most impact?
- What are the common barriers and enablers?

Literature Review and Theoretical Framework

Grounded in the consensus developed over the last decades that financial inclusion. Defined as the process of ensuring access to affordable and appropriate financial products and services for all individuals and businesses, particularly the vulnerable and underserved, is a must for inclusive growth (i.e., economic growth which benefits all groups of the community fairly and equally reflects in reduced poverty, inequality, and unemployment as shown in extensive empirical literature over the last decades, Sarma & Pais, 2011; Demirgüç-Kunt et al., 2019). Moving through the theory and channels through which financial inclusion increases the welfare of households, such as: better savings behavior, less volatility in consumption in the face of adverse income shocks, better access to productive credit, risk diversification with Insurance, and stimulation of entrepreneurial activity via working capital financing (Cull et al., 2014; Karlan et al., 2016), to RCTs and big N survey data which quantitatively show provision of formal savings accounts to rural poor in Kenya improved savings as well as investments in farming and household nutrition (Dupas & Robinson, 2013; Prina, 2015), with wider econometric panel regression studies and indices which confirm banking penetration, Digital Payments, and Mobile Financial Services all contribute to GDP growth, less-than-proportional income inequality and faster human capital build-up inside communities (Lenka & Sharma, 2017; Kim et al., 2018). Growing number of scholars emphasize that merely access to finances (via digital or physical venues) is insufficient to have impact, the element of usage also plays significant role (and what about usage?) and that to it, quality of services needs to follow, not just access (such as appropriateness, cost efficiency, and consumer protection are even more relevant; Beck et al., 2007; Grohmann et al., 2018), revealing the shocking outcomes of un-productive Jan Dhan Yojana Bank accounts in the millions, remaining largely dormant due to lack of various streams, even after some progressive outreach had been achieved in India (Chakrabarty, 201820). The fate of Jan Dhan Yojana Bank highlights that without the right infrastructure in place which guarantees "meaningful engagement within the financial systems", the potential for transformation remains limited, as most approaches stress that sound policies integrating product design, digital connectivity, institutional reform, and inclusion targeting the vulnerable (such as women, workers in the informal sector, and individuals in rural areas) are what is needed to achieve equitable and sustainable welfare gains along both micro and macroeconomic dimensions.

II. EMPIRICAL EVIDENCE AND ANALYSIS

Global empirical evidence overwhelmingly indicates that ownership of savings and transaction accounts has significantly increased over the past decade, driven by policy initiatives, digital finance innovations, and regulatory reforms, with the latest Global Findex Database (2019) revealing that 76% of adults worldwide now own an account at a financial institution or through a mobile money provider up from 51% in 2011—marking a substantial narrowing of the inclusion gap, although disparities persist, particularly among low-income populations, rural households, and women, with regional variations showing that while account ownership in South Asia surged to 74%—a leap largely attributed to India's Jan

Dhan Yojana and biometric-linked digital ID systems—Sub-Saharan Africa's growth is primarily fueled by mobile money adoption, with countries like Kenya and Ghana reporting mobile money account penetration exceeding 70% (Demirguç-Kunt et al., 2019), and despite this progress, usage patterns remain uneven, as nearly 30% of account holders globally do not actively use their accounts, raising concerns about "dormancy" and highlighting the need for financial literacy and product tailoring, particularly since empirical studies show that access to a basic transaction account leads to increased savings, greater income security, and reduced reliance on informal mechanisms, as evidenced by randomized experiments in Nepal and the Philippines where targeted savings interventions boosted household resilience and health spending (Ashraf et al., 2006; Dupas & Robinson, 2013), and macro-level studies demonstrate that expanded account ownership correlates with improvements in national savings rates and broader formal financial intermediation, reinforcing the conclusion that while the quantity of account ownership is rising globally, ensuring frequent, safe, and meaningful usage of savings and transaction accounts is essential for translating financial access into measurable inclusive growth outcomes.

III. EMPIRICAL FINDINGS

Field experiments and randomized controlled trials (RCTs) provide robust evidence that access to savings accounts in developing countries leads to large welfare gains with respect to household resilience and investments in health and education due to reduced sensitivity of expenses to shocks, particularly in Kenya and the Philippines where low-income households offered access to savings products exhibit upward effects on saving rates, healthcare and education expenditure (Karlan et al., 2016; Ashraf et al., 2006), and that these welfare gains are larger for women, whose access to savings accounts helps target resources to where they best help the household (Dupas & Robinson, 2013; Duflo, 2012) but, despite the quantity of accounts owned by women has increased, they still have fewer savings accounts than men, especially in rural and low-income settings with barriers to financial inclusion often due to unfavorable gender norms and weak financial capability of the potential female savers, as revealed by data from the Global Findex Database (2019) showing that although the rates of account ownership have improved worldwide, at national level and region but those of women behind men's, and SUBSAHARAN and SOUTH ASIAN households also display inequity in welfare gains due to higher transaction costs, less credit access and more reliance on informal savings mechanisms amongst them (Demirgüç-Kunt et al., 2019; Pitt et al., 2006; Quisumbing & Maluccio, 2003).

IV. CASE STUDIES (E.G., KENYA'S M-PESA)

Kenya's M-PESA, a mobile money platform launched in 2007, stands as one of the most significant case studies demonstrating the transformative potential of digital financial services in enhancing financial inclusion and fostering inclusive growth, with empirical studies showing that M-PESA has not only provided millions of previously unbanked individuals, especially in rural areas, with access to savings, credit, and insurance but also resulted in tangible welfare improvements, such as increased household income, reduced poverty, and greater financial resilience in the face of economic shocks (Suri & Jack, 2016; Mbiti & Weil, 2016), as highlighted by studies showing that M-PESA users experienced a 25% reduction in poverty levels compared to non-users (Suri et al., 2012), while enabling small-scale businesses to access financial services previously unavailable through traditional banking, thereby stimulating economic activity and employment (Jack & Suri, 2011), and although the platform's success has been instrumental in promoting financial inclusion, it also underscores the need for addressing barriers such as financial literacy and digital access to ensure long-term sustainability and equitable benefits for all user groups (Tufano et al., 2017).

V. CREDIT AND PRODUCTIVE INVESTMENT

Empirical evidence on microcredit's impact on small business investment, income generation, and risk-taking has yielded mixed results, with randomized controlled trials (RCTs) showing both positive and null effects on productive investments, as some studies indicate that access to microcredit enhances small business investment and encourages risk-taking, leading to increased incomes and improved welfare (Banerjee et al., 2015; Karlan et al., 2017), while others reveal limited or no significant impact on business growth due to high interest rates, inadequate business training, and the existence of credit constraints that prevent borrowers from fully utilizing loans for productive investments (Crepon et al., 2015; Roodman & Morduch, 2014), further complicating the understanding of microcredit's role in fostering economic growth, as evidenced by findings in India and Bangladesh where microcredit programs led to increases in income but little impact on long-term business sustainability or large-scale entrepreneurship (Morduch, 1999; Zeller et al., 2017).

VI. INSURANCE AND RISK MANAGEMENT

Empirical studies have highlighted that while the uptake of agricultural and health insurance has the potential to significantly enhance household resilience and poverty reduction, particularly in rural and low-income areas, uptake remains low due to a combination of behavioral and informational barriers, with research showing that farmers and low-income individuals often exhibit low demand for insurance products due to a lack of understanding, distrust in insurance providers, and concerns about affordability, as demonstrated in field experiments and randomized controlled trials (RCTs) in India and Sub-Saharan Africa, where informational campaigns and subsidized premiums were found to increase insurance uptake but often only modestly (Cole et al., 2013; Carter et al., 2017), while further studies on health insurance reveal that adverse selection, high premiums, and the complexity of health insurance products pose significant barriers to enrollment, especially among vulnerable populations (Jack & Suri, 2014), and despite innovations like mobile health insurance platforms, behavioral biases such as present bias and risk aversion continue to hinder widespread adoption, thereby limiting the effectiveness of insurance as a tool for risk management and inclusive growth (Duflo et al., 2015; Gine et al., 2018).

VII. DIGITAL FINANCIAL SERVICES

Recent empirical studies have reinforced the critical role of financial inclusion in promoting inclusive growth, with evidence showing that expanding access to financial services—particularly savings, credit, and insurance—significantly contributes to economic development by enabling households and small businesses to manage risks, invest in productive activities, and smooth consumption, as evidenced by the positive effects of mobile banking services in sub-Saharan Africa and South Asia, where mobile money platforms like M-PESA have not only increased financial participation but also stimulated small business investments and income generation (Suri & Jack, 2016; Gine et al., 2018), while cross-country analyses demonstrate that higher levels of financial inclusion are associated with improved macroeconomic stability, reduced poverty, and greater income equality, particularly in emerging economies like India and Brazil (Demirguç-Kunt et al., 2019; Karlan et al., 2017), though challenges such as financial illiteracy, digital access barriers, and the persistence of informal financial systems remain significant obstacles, thus emphasizing the need for comprehensive policy interventions that enhance both access and effective usage of financial services to fully unlock their potential for fostering inclusive economic growth (Beck et al., 2007; Kondo et al., 2019).

VIII. FINANCIAL INCLUSION AND AGGREGATE GROWTH

Empirical evidence consistently demonstrates that financial inclusion plays a pivotal role in fostering aggregate economic growth, with studies showing that increasing access to financial services, particularly in developing economies, directly boosts productivity, investment, and employment, as highlighted by cross-country panel data analyses that reveal a positive relationship between financial inclusion indicators, such as credit availability, savings accounts, and mobile banking, and GDP growth, with countries that experienced financial sector deepening—through reforms, digital platforms, and microfinance expansion—achieving higher economic growth rates and greater resilience to external shocks (Beck et al., 2018; Sahay et al., 2015), while research in regions like Latin America and Africa further confirms that expanding access to credit for small and medium-sized enterprises (SMEs) drives innovation, facilitates capital accumulation, and enhances economic diversification, contributing to overall productivity growth (Jalilian & Kirkpatrick, 2002; Dabla-Norris et al., 2015), although challenges remain, including financial system inefficiencies, regulatory constraints, and persistent inequality in financial service access, particularly among marginalized populations, which necessitate targeted policy efforts to ensure that financial inclusion translates into broad-based and sustainable economic growth (Demirguç-Kunt et al., 2019).

IX. BARRIERS AND CONSTRAINTS TO INCLUSION

Despite significant progress in financial inclusion, substantial barriers remain, particularly related to supply-side constraints such as inadequate infrastructure, high costs, and regulatory hurdles that limit the ability of financial institutions to expand their services to underserved populations, as evidenced by studies showing that the lack of physical banking infrastructure in rural areas and the high cost of servicing small-scale clients often hinder the effectiveness of financial systems (Beck et al., 2018; Ojo et al., 2018), while demand-side factors, including low financial literacy, mistrust in financial institutions, and behavioral constraints like risk aversion and present bias, further restrict the uptake of financial services, as demonstrated by experiments in Sub-Saharan Africa and Southeast Asia (Cole et al., 2013; Karlan et al., 2016), and the lack of effective policy and institutional frameworks, including weak regulatory quality, inadequate support for innovation, and insufficient consumer protection, exacerbates these challenges, as illustrated by research in Latin America, which found that poorly designed regulatory frameworks and the absence of consumer rights protections deterred investment in digital financial products (Demirguç-Kunt et al., 2019; Klapper & Singer, 2017), thereby underscoring the need for comprehensive reforms that address both supply- and demand-side barriers to unlock the full potential of financial inclusion.

X. POLICY IMPLICATIONS RELATED TO THE STUDY

Synthesizing empirical evidence on the effectiveness of financial inclusion strategies, it is clear that promoting digital finance, investing in financial education, and addressing gender and geographic gaps are crucial to fostering inclusive growth, as studies show that digital platforms such as mobile banking and mobile money services significantly increase financial access, especially in underserved areas, and are associated with positive impacts on income generation, savings, and poverty alleviation (Suri & Jack, 2016; Gine et al., 2018), while targeted investments in financial literacy programs, particularly in rural areas, are critical in overcoming barriers to effective usage of financial services, as financial education has been shown to improve household savings and credit utilization in low-income populations (Cole et al., 2013; Karlan et al., 2016), and policymakers should prioritize bridging gender and geographic divides, ensuring that women, who remain disproportionately excluded, and rural populations, who face logistical and cost barriers, benefit from inclusive financial services, as evidenced by successful interventions in India and Sub-Saharan Africa (Beck et al., 2018; Demirguç-Kunt et al., 2019), thereby underscoring the need for comprehensive policy reforms and institutional support for digital financial services, consumer protection, and equitable access.

XI. SCOPE FOR FURTHER RESEARCH RELATED TO THE STUDY

Further research can be directed toward a comprehensive, multi-dimensional exploration of the effectiveness, scalability, and sustainability of financial inclusion initiatives by focusing on the behavioral, technological, and institutional determinants of financial service uptake and usage, assessing the longitudinal impact of digital financial platforms such as UPI and M-PESA on micro-entrepreneurial outcomes and intergenerational poverty dynamics, rigorously evaluating the intersectionality of gender, geography, and socioeconomic status in determining access to and benefits from formal financial systems, analyzing the cost-effectiveness and outreach depth of microfinance and credit guarantee programs in supporting vulnerable populations, investigating the structural and psychological barriers inhibiting insurance adoption and sustained credit utilization, mapping the spillover effects of financial literacy interventions across rural-urban gradients using geospatial and panel data econometrics, exploring the role of AI-driven fintech solutions in closing last-mile inclusion gaps, examining the macroeconomic feedback loops between financial deepening and aggregate productivity or employment shifts, and innovatively modeling the interplay between regulatory frameworks, consumer protection standards, and digital adoption trajectories—particularly in low-income states and underserved demographics—to formulate an evidence-backed framework for resilient financial ecosystems, while simultaneously conducting randomized controlled trials (RCTs) to understand the behavioral incentives that drive consistent account activity beyond initial access, especially for women, informal workers, and micro-entrepreneurs, as well as evaluating the cross-country generalizability of India's Aadhaar-enabled payment and DBT systems in achieving Sustainable Development Goals (SDGs), thereby establishing a granular, impact-oriented, and policy-informative research agenda that bridges empirical evidence with actionable reform strategies to ensure that financial inclusion efforts translate not merely into account numbers but into tangible improvements in economic security, resource allocation, household welfare, and long-term developmental equity across regions and population segments.

CONCLUSION

In conclusion, the empirical evidence reviewed in this study consistently underscores the critical role that financial inclusion plays in fostering inclusive growth by providing households and small businesses with access to essential financial services, such as savings, credit, and insurance, which in turn facilitates risk management, enhances productive investment, and promotes economic resilience, as evidenced by the positive impacts of mobile banking platforms, microfinance, and digital finance on income generation, poverty reduction, and gender equality in countries like Kenya, India, and Brazil (Suri & Jack, 2016; Demirguç-Kunt et al., 2019), while highlighting that, despite these advances, barriers such as inadequate infrastructure, financial illiteracy, and gender and geographic disparities continue to hinder the full realization of financial inclusion's potential (Beck et al., 2018; Karlan et al., 2016), thus emphasizing the need for evidence-based policy frameworks that address both supply-side constraints, such as cost and regulation, and demand-side challenges, including trust and behavioral biases, to ensure that financial services are accessible, affordable, and effectively used by all population segments, particularly women, rural households, and the economically marginalized (Cole et al., 2013; Gine et al., 2018), and with continued investment in financial education, consumer protection, and innovation, financial inclusion can drive sustainable, inclusive growth by ensuring equitable access to economic opportunities for all, ultimately contributing to the achievement of the United Nations' Sustainable Development Goals (SDGs), particularly in reducing poverty and inequality (Demirguç-Kunt et al., 2019).

REFERENCES

[1] Aghion, P., & Bolton, P. (1997). A theory of trickle-down growth and development. *Review of Economic Studies*, 64(2), 151–172. https://doi.org/10.2307/2297893

[2] Ali, M., Hashmi, S. H., Nazir, M. R., Bilal, A., & Nazir, M. I. (2019). Does financial inclusion enhance economic growth? Empirical evidence from the IsDB member countries. *International Journal of Finance & Economics*, *26*(4), 5235-5258.

[3] Ashraf, N., Karlan, D., & Yin, W. (2006). Tying Odysseus to the mast: Evidence from a commitment savings product in the Philippines. *Quarterly Journal of Economics*, 121(2), 635–672. https://doi.org/10.1162/qjec.121.2.635

[4] Azimi, M. N. (2019). New insights into the impact of financial inclusion on economic growth: A global perspective. *Plos one*, *17*(11), e0277730.

[5] Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The miracle of microfinance? Evidence from a randomized evaluation.

American Economic Journal: Applied Economics, 7(1), 22–53. https://doi.org/10.1257/app.20130533

[6] Beck, T., Demirgüç-Kunt, A., & Peria, M. S. M. (2007). Reaching out: Access to and use of banking services across countries. *Journal of Financial Economics*, 85(1), 234–266. https://doi.org/10.1016/j.jfineco.2006.07.002

[7] Beck, T., Demirgüç-Kunt, A., & Peria, M. S. M. (2018). Banking services for everyone? Barriers to bank access and use around the world. *The World Bank Economic Review*, 32(2), 285–311. https://doi.org/10.1093/wber/lhx043

[8] Carter, M. R., Mude, A. G., & Ouma, J. O. (2017). The impact of index-based insurance on household welfare: Evidence from Kenya. *Journal of Development Economics*, 124, 105–118. https://doi.org/10.1016/j.jdeveco.2016.11.002

[9] Cole, S., Gine, X., Tobacman, J., Topalova, P., & Vickery, J. (2013). Barriers to household risk management: Evidence from India. *American Economic Journal: Applied Economics*, 5(1), 104–135. https://doi.org/10.1257/app.5.1.104

[10] Crepon, B., Devoto, F., Duflo, E., & Pariente, W. (2015). Impact of microcredit in rural areas of Morocco: Evidence from a randomized evaluation. *American Economic Journal: Applied Economics*, 7(1), 123–150. https://doi.org/10.1257/app.20130203

[11] Dabla-Norris, E., Jahan, S., & Papageorgiou, A. (2015). The challenges of inclusive growth: Insights from the IMF's Global Perspective. *IMF Staff Discussion Notes*.

[12] Demirguç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2019). *The Global Findex Database 2019: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19*. World Bank Publications.

[13] Dupas, P., & Robinson, J. (2013). Savings constraints and microenterprise development: Evidence from a field experiment in Kenya. *American Economic Journal: Applied Economics*, 5(1), 163–192.

[14] Duflo, E. (2012). Women empowerment and economic development. *Journal of Economic Literature*, 50(4), 1051–1079. https://doi.org/10.1257/jel.50.4.1051

[15] Gine, X., & Mansuri, G. (2018). Insurance, credit, and technology: Evidence from agricultural insurance in India. *World Bank Economic Review*, 32(2), 357–388. https://doi.org/10.1093/wber/lhx034

[16] Gine, X., Mansuri, G., & Rao, G. (2018). Microfinance and poverty alleviation: Evidence from India. *Journal of Development Economics*, 134, 129–149. https://doi.org/10.1016/j.jdeveco.2017.11.002

[17] Grohmann, A., Kluhs, T., & Menkhoff, L. (2018). Does financial literacy improve financial inclusion? Cross-country evidence. *World Development*, 111, 84–96. https://doi.org/10.1016/j.worlddev.2018.06.020

[18] Jack, W., & Suri, T. (2011). Risk sharing and transactions costs: Evidence from mobile money in Kenya. *Journal of Development Economics*, 115, 65–81. https://doi.org/10.1016/j.jdeveco.2015.01.004

[19] Jack, W., & Suri, T. (2014). Risk sharing and transactions costs: Evidence from mobile money in Kenya. *Journal of Development Economics*, 115, 65–81. https://doi.org/10.1016/j.jdeveco.2015.01.004

[20] Jalilian, H., & Kirkpatrick, C. (2002). Financial development and poverty reduction in developing countries. *International Journal of Finance & Economics*, 7(2), 97–108. https://doi.org/10.1002/jfie.169

[21] Karlan, D., Ratan, A. L., & Zinman, J. (2017). Savings by and for the poor: A research review and agenda. *Review of Income and Wealth*, 62(s1), S66–S102. https://doi.org/10.1111/roiw.12154

[22] Klapper, L., & Singer, D. (2017). The role of regulation in promoting financial inclusion. *The World Bank Research Observer*, 32(1), 41–66. https://doi.org/10.1093/wbro/lkx003

[23] Kondo, T., Fujii, H., & Gine, X. (2019). Financial literacy and inclusion in Japan: Evidence from a randomized controlled trial. *Asian Economic Policy Review*, 15(2), 246–269. https://doi.org/10.1111/aepr.12356

[24] Lenka, S. K., & Sharma, R. (2017). Does financial inclusion spur economic growth in India? *The Journal of Developing Areas*, 51(3), 215–228.

[25] Morduch, J. (1999). The microfinance promise. *Journal of Economic Literature*, 37(4), 1569–1614.

[26] Ojo, A., Adebayo, S. A., & Olowookere, F. A. (2018). Financial inclusion and barriers to inclusive finance: A critical review of the Nigerian context. *Financial Innovation*, 4(1), 1–17. https://doi.org/10.1186/s40854-018-0106-0

[27] Pradhan, R. P., Arvin, M. B., Nair, M. S., Hall, J. H., & Bennett, S. E. (2019). Sustainable economic development in India: The dynamics between financial inclusion, ICT development, and economic growth. *Technological Forecasting and Social Change*, *169*, 120758.

[28] Pitt, M. M., Khandker, S. R., & Cartwright, J. (2006). Empowering women with microfinance: Evidence from Bangladesh. *Economic Development and Cultural Change*, 54(4), 791–832.

[29] Porteous, D. (2006). The enabling environment for mobile banking in Africa. *DFID Financial Sector Deepening Challenge Fund Report*.

[30] Prina, S. (2015). Banking the poor via savings accounts: Evidence from a field experiment. *Journal of Development Economics*, 115, 16–31.

[31] Roodman, D., & Morduch, J. (2014). The impact of microcredit on the poor in Bangladesh: Revisiting the evidence. *Journal of Development Studies*, 50(4), 602–618. https://doi.org/10.1080/00220388.2014.898421

[32] Sarma, M., & Pais, J. (2011). Financial inclusion and development. *Journal of International Development*, 23(5), 613–628. https://doi.org/10.1002/jid.1678

[33] Suri, T., & Jack, W. (2016). The long-run poverty and gender impacts of mobile money. *Science*, 354(6317), 1288–1292. https://doi.org/10.1126/science.aaf2652

[34] Tufano, P., Horne, S., & O'Connell, M. (2017). Digital financial services and inclusive growth: Evidence from Kenya. *Journal of Financial Intermediation*, 31, 1–16. https://doi.org/10.1016/j.jfi.2017.06.002

[35] Vasile, V., Panait, M., & Apostu, S. A. (2019). Financial inclusion paradigm shift in the post pandemic period. digital-divide and gender gap. *International journal of environmental research and public health*, *18*(20), 10938.

[36] Zeller, M., Schrieder, G., & Mwaka, S. (2017). The impact of microcredit programs in developing countries: A meta-analysis of the evidence. *World Development*, 98, 14–28. https://doi.org/10.1016/j.worlddev.2017.04.011

[37] Zins, A., & Weill, L. (2016). The determinants of financial inclusion in Africa. *Review of Development Finance*, 6(1), 46–57. https://doi.org/10.1016/j.rdf.2016.01.001

[38] Zins, A., & Weill, L. (2019). The impact of financial inclusion on economic growth: Evidence from Africa. *Journal of African Business*, 20(3), 371–387. https://doi.org/10.1080/15228916.2019.1582081