Financial Inclusion Through Labour Force Participation Catalysed by Digitalisation

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ABSTRACT

Financial inclusion (FI) has been recognized as an important determinant of growth and prosperity. FI simply means that individuals and businesses have access to useful and affordable financial products and services to fulfil their needs in a responsible and sustainable way, like monetary transactions, payments, savings, credit and insurance. The Digital India campaign of the Government of India has given a great impetus to opening of bank accounts, digital monetary transactions while ensuring the tracking of money transfers. It is acknowledged that for nations to develop and enhance the quality of life of its people, it must ensure that majority have a source of living and have access to basic amenities of life. Financial autonomy and the freedom to make choices to improve one's standard of living brings happiness and contentment. People may then focus on the betterment of the society as a whole. With the aim of achieving the SDGs (Sustainable Development Goals), nations are striving to improve the condition of its people and make the earth capable enough to support all living beings. The present research works at the grass root level by examining the role of labour force participation as a means enthusing sustenance and growth. It examines whether labour force participation leads to financial inclusion which in turn leads to development. It also investigates the role of digitalization as a means of promoting financial autonomy. This review paper assimilates the views of experts and underscores the importance of financial inclusion to achieve the goal of *Viksit Bharat* (or developed nation) by 2047.

Keywords: financial inclusion, labour force participation, SDGs, growth, development.

1. INTRODUCTION

The relationship between financial inclusion (FI) and labour force participation (LFP) is a complex and multifaceted issue that has garnered significant attention in recent years. While there is a growing body of literature exploring this nexus, the extent to which FI can drive LFP remains a subject of debate.

Financial systems across the globe that inclusive have a greater percentage of population having access to and utilizing financial services (World Bank, 2014; Demirgüç-Kunt, Klapper, and Singer 2017). Financial inclusion must be improved in many aspects, and there remains room for improving the coverage of financial inclusion so as to ensure overall development of the economy. Simultaneously, the gender gap in the use of financial inclusion, with many women in remote and poor areas having significantly lower levels of participation in formal economic activities than men (Kim 2022) needs to be addressed.

Asfaw et al. (2009) also found that gender gap in finance was more obvious when using scarce resources and was exacerbated by poverty, which was more severe in low- and middle-income countries. Financial inclusion essentially aims to address the sustainable development. The rational economic man hypothesis in traditional finance is wrought with inherent flaws, making inclusive finance an invaluable supplement to address the gaps and imperfections in a country's existing financial system (Renzhia and Baek 2020).

The continuous development of financial inclusion requires a stable macroeconomic environment, which cannot be separated from regulatory support (Johnson, 2013). However, the development level of financial inclusion is seriously unbalanced, and the quality of financial services and level of market supervision are uneven.

The development of inclusive finance provides more financing channels for micro, small, and medium-sized enterprises and provides financial services for the whole life cycle (Lai et al. 2022). The smooth financing channels of enterprises and institutions, especially small and micro enterprises over short periods, the availability of start-up funds, and micro-credit are particularly important for guaranteeing individual employment and improving employment levels. This, in turn leads to an increase in labour force participation.

Digital financial services using mobile phones and other devices cover more than eighty countries worldwide, providing those most likely to be excluded: poor, rural, female or young individuals (Allen et al. 2016) with more humanised financial services and developing the economy at the macro level by supporting small and micro enterprises, assisting agriculture, and stimulating investment, among others (Fu, 2020).With the impetus given to the Digital India campaign, India recorded 48.5 percent share in global real-time payment volumes in 2023 as per a report by Reserve Bank of India. This constituted approximately half of the world’s total digital payments.

The present study undertakes this vital task of examining whether greater financial inclusion would lead to higher levels of labour force participation within the current digital framework.

2.REVIEW OF LITERATURE

2.1 Financial Inclusion (FI)

FI simply means the ability of people as well as businesses to have access to useful and affordable financial products and services that meet their needs such as financial transactions, payments, savings, credit and insurance; and these being delivered in a responsible and sustainable manner (W.B., 2022).

World’s greatest Institutions such as UNICEF, World Bank, G-20, IMF, etc. have underscored the importance of financial autonomy in alleviating poverty and improving access to basic amenities. Morsy (2020) asserted that female inclusion could be improved by a simple measure such as opening an account at a formal bank or a non-bank financial institution.

Hence, financial independence ensures planning for education, health, retirement, leisure as well as helps in mitigating the risks, thereby enhancing the quality of life.

Financial inclusion denotes the access to reasonably priced and appropriate formal financial services that meet their needs by enterprises and households. According to World Bank (2022), FI is crucial for plummeting poverty and promoting shared prosperity. Easy reach to financial services can be defined along numerous dimensions, including geographic access (i.e. proximity to a financial service provider) and socio-economic access (i.e. absence of prohibitive fees and documentation requirements). FI is a broader concept than microfinance, which often refers to the provision of products to specific groups at the lower end of the market, using specific delivery techniques and institutions.

FI is part of a broader financial deepening agenda that focuses on ensuring the efficient and sustainable provision of financial services to households, enterprises and governments, while minimizing the risk of fragility. While an extensive literature has established a positive relationship between financial depth (as measured by aggregate measures such as Private Credit to GDP) and economic growth that holds even when controlling for estimation biases arising from reverse causation, measurement and omitted variables (see Levine, 2005 and Beck, 2009, for surveys), evidence on a positive impact of financial inclusion on individual and aggregate welfare has been much less conclusive.

For least developed countries, for example, the average credit-GDP ratios have more than doubled since the 1990s, increasing from an average of 10% in the 1990s to 24% in 2010–18. Similar transformations have been experienced by emerging economies like China and India where the figures averaged at 92% and 24% in the 1990s and 142% and 51% respectively in the 2010–18 period.1

In the context of developing economies where societies have long been characterized by interlocking social and economic gradients, there remain major barriers to accessing financial services for households and individuals from socially marginalized backgrounds (Kumar and Venkatachalam 2019; Kumar 2013; GhoshandVinod2017; Asiedu et al. 2012; Demirguc-Kunt et al. 2013; De Andres et al. 2021; Aristei and Gallo 2016).

Valuable as these insights are, the very fact that gender differences have been so persistent and the very fact that they continue to shape contemporary societies, points to the complex entanglements between economic development and gender. This was precisely what the wave of feminist scholarship that emerged in the 1970s, and that paved the way for bringing gender into the forefront of academic debates, insisted when they first began analyzing deep-rooted structural causes of gender differentials and cultural biases in society (Federici 1975; Smith 1974; Pateman 1988).

2.2 Role of Digitalization

Digital India mission was launched by Government of India (GOI) in 2015 with the objective of offering public services to the grass root level, reducing misuse of public funds and providing inclusive development. According to report by Telecom Regulatory Authority of India (TRAI) published in 2023, India had 850.95 million internet subscribers with more than

500 M from urban areas and the remaining from rural areas. There were about 1.1 billion mobile subscribers and about 398 million were engaged on social media. India already has more than 300 million users of UPI (TRAI, 2023). According to Rao (2024), the key to India's economic transformation was rapid digitalization. India has an interesting journey of digital financial transactions which is depicted as under:

Table 1: Digital Payment Transactions in India from 2017-23

Sr. No.	Year	Digital Transactions - Current (Crore)	BHIM Transactions - Current (Crore)	Debit Card - Current (Crore)
1	2017-18	2,070.95	91.31	334.34
2	2018-19	3,134.31	535.16	441.79
3	2019-20	4,571.78	1,251.75	512.38
4	2020-21	5,554.12	2,232.95	411.47
5	2021-22	8,637.87	4,560.79	414.75
6	2022-23	12,644.99	8,324.05	380.2

Source: RBI, PIB, NPCI, DigiDhan Dashboard

Digital payments comprise of those transactions wherein no physical cash is involved and the technology is used for transfer of money from one bank account to the other. Many types and methods of digital financial modes are being used for trade and commerce like Unified Payments Interface (UPI), ATM Cards, Micro ATMs, Mobile Wallets, Bank Prepaid Cards Aadhaar Enabled Payment System (AEPS), Internet Banking, Mobile Banking, PoS Terminals, Unstructured Supplementary Service Data (USSD), etc. The novel innovations introduced in the financial sector are discussed hereunder:

Table 2: Novel Innovations in the Financial Sector

Sl.No.	*Novel innovations in financial sectors*	*Details*
1.	Mobile Wallets	Companies like Paytm, PhonePe, and Google Pay
2.	Digital Lending Platforms:	Several fintech companies and digital lending platforms like Rupee- Redee, Finzy-Bridge Fintech, India Lends etc
3.	Online Brokerages	Online trading platforms available in market like Zerodha and Upstox have democratized stock trading by offering low-cost trading and user-friendly interfaces.

4.	Cybersecurity and Data Privacy	As digital financial services expanded, so did concerns about cybersecurity and data privacy. Various laws and rules have been promulgated to protect the hapless investors from cyber frauds.
5.	Digital Insurance	Insurtech start-ups like Acko General Insurance, Policy Bazar, Onsurity have simplified the purchase and management of insurance policies through digital channels.
6.	KYC Digitization	Know Your Customer (KYC) processes has made it easier for financial institutions to onboard customers remotely, reducing paperwork.
7.	Rural and Urban Connectivity	The penetration of smartphones along with affordable data connections both 3G and 4G in the urban as well as rural areas.
8.	Fintech Ecosystem	fintech ecosystem are burgeoning with startups and established financial institutions collaborating to offer innovative solutions
9.	Open Banking	Concept of open banking emerged, allowing third-party fintech providers to access customer data with their consent.
10.	Robo-Advisors	The use of artificial intelligence and Robo-advisors like SoFi, Vanguard, Wealthfront etc. for furnishing investment and portfolio management advisory to the clients after studying the algorithms.

(Source: Authors)

As per DD News (2024), at present, the digital economy is responsible for about a tenth of India's GDP and is likely to contribute to about a fifth of GDP by 2026 in accordance with the growth rate over the past decade. Digital payments in India have experienced a compound annual growth rate (CAGR) of 50 percent in volume and 10 percent in terms of value over the last seven years. This was reflected by 164 billion transactions amounting to Rs 428 lakh crore during 2023-24 (DD News, 2024).

According to Muthusamy (2024), UPI became the world's leading alternative payments method, surpassing Alipay, PayPal, and Brazil's PIX in transaction volume. It recorded transactions worth ₹80.8 lakh crore ($964 billion) in April-July 2024, indicating an increase of 37% year-on-year.

2.3 Labour Force Participation (LFP)

The labour force participation rate is a measure of the proportion of a country's working-age population that engages actively in the labour market, either by working or looking for work; it provides an indication of the size of the supply of labour available to engage in the production of goods and services, relative to the population at working age. The breakdown of the labour force (formerly known as economically active population) by sex and age group gives a profile of the distribution of the labour force within the country.

The labour force participation rate is calculated by expressing the number of persons in the labour force as a percentage of the working-age population. The labour force is the sum of the number of persons employed and the number of unemployed. The working-age population is the population above the legal working age – often aged 15 and older, but with variation from country to country based on national laws and practices.

Malnutrition, disability and chronic sickness can affect the capacity to work and are therefore also considered as major determinants of labour force participation, particularly in low-income environments. Another aspect closely studied by demographers is the relationship between fertility and female labour force participation. This relationship is used to predict the evolution of fertility rates, from the current pattern of female participation in economic activity.

2.4 Studies on relationship between Financial Inclusion (FI) and Labour Force Participation (LFP)

The relationship between financial inclusion and labour force participation (LFP) is a complex and multifaceted issue that has garnered significant attention in recent years. While there is a growing body of literature exploring this nexus, the extent to which financial inclusion can drive LFP remains a subject of debate.

Several studies have demonstrated a positive correlation between financial inclusion and female LFP, particularly in developing countries. Access to credit, savings, and insurance can empower women to start businesses, invest in education, and overcome financial constraints that hinder their labour market participation. Several studies conducted around the world have concluded that women's access to basic financial services can impact the wellbeing of the family, community and the country. In a study based in Nepal that looked into the long-term impact of access to accounts that do not have any opening, maintenance or withdrawal fees for female heads of household, it was found that it led to an increase in schooling levels of daughters and the aspirations parents have for their education (Chiapa et al., 2015). It also enhanced their responsiveness to health emergencies. In a study in Bangladesh, access to microcredit was associated with better health and nutrition outcomes for both girls and boys (Pitt et al., 2003). In a similar study looking at the consumption flow of programme credit, a larger impact effect on the behaviour of women was observed. This was especially true in the case of household expenditure (Pitt & Khandker, 1998). Analogous results have been noted for a commitment savings product in the Philippines, which led to more decision-making power in the household for women, and likewise more purchases of female-oriented durable goods (Ashraf et al., 2006).

3 OBJECTIVES

The following objectives were identified for the study:

- To review the current status of Financial Inclusion and Labour Force Participation.
- To examine the relationship between Financial Inclusion and Labour Force Participation.
- To examine whether Digitalisation facilitates Financial Inclusion and Labour Force Participation.
- To review the Government Framework on Financial Inclusion and Labour Force Participation.

4 RESEARCH METHODOLOGY

The present study is an attempt to review the importance of financial inclusion and labour force participation in India's transformative journey through hundred years of Independence. She boasts of being one of the fastest growing economies of the world and is a home to the largest number of people. With visionary policies and stringent compliances, it was imperative to assess the journey this far from the perspective of Digital India mission. Several research papers, Government reports, blogs etc were reviewed and summarised. The study was exploratory and descriptive and relied essentially on secondary data.

5 ANALYSIS AND DISCUSSION

Adam Smith's "*The Wealth of Nations*" in 1776 is usually considered to mark the beginning of classical economics. He upheld that the wealth of any nation was determined by its national income, or the money in the hands of the populace.

The income was derived from the labour of the inhabitants, which was effectively organized through the division of labour and the utilization of accumulated capital—a key concept in classical economics (Bleaney et al., 1992).

In the middle of nineteenth century, John Stuart introduced the concept of "Economic Man", which endorsed that an idealized human being is one who is rational, self-interested, and consistently makes decisions to maximize his gains or profit. This theory disregarded the social aspect of collective growth and prosperity and hence faced the flak from several oriental thinkers. They challenged the underlying assumption that men took economic decisions only based solely on self-interest.

Marshal (2005), contended that Smith's classical theory was concerned with "the study of wealth as well as the study of man."

Hence, at the threshold of the twenty first century, economists realized that development of nations and economies was possible only with the inclusion of all in the mainstream economy.

This brought us to the examination of financial inclusion in tandem with labour force participation. The G-20 nations have committed to advance financial inclusion worldwide. In fact, they have reaffirmed their commitment to implement Digital Financial Inclusion (W.B., 2022).

As per reports, in 2021, seventy six percent of the world's adult population had an account. With the increased impetus towards digitalization, greater number of people now have access to mobile phones. According to Laricchia (2023), the number of mobile devices worldwide were about fifteen billion and were expected to reach 18.22 billion by 2025.These staggering numbers along with the Governments' commitment to providing financial services to all paves the way towards financial independence and inclusive development of nations across the globe.

On the basis of review, the following points were summarised:

5.1. Positive correlation between Financial Inclusion and female LFP:

Several studies have demonstrated a positive correlation between FI and female LFP, particularly in developing countries. Easy access to credit facilities, savings, and insurance can empower females to start businesses on their own, invest in their children's education, and overcome their financial constraints that hinder their participation in labour market.

Researchers have found that countries with minimal or no financial inclusion gap between men and women tend to have higher female labour force participation. For example, Albania has seen a four percent point decrease in the gender economic participation gap, while Bahrain has achieved a six percent point reduction. In Malta, the gap has narrowed from thirty-two to twenty six percent points. According to the World Bank (2019), a ten percent point reduction in the labour force participation gap can lead to a six percent point improvement in financial inclusion equity.

Several studies have been conducted around the world, which have concluded that women's access to basic financial services can greatly influence the wellbeing of the family, community at large and the country. A study based in Nepal, researched into the long-term impact of access to accounts that do not have any opening, maintenance or withdrawal fees for female heads of household, it was found that it led to an increase in schooling levels of daughters and the aspirations of parents for their education (Chiapa et al., 2015). Ownership of accounts also enhanced their responsiveness to health emergencies. According to a study in Bangladesh, access to microcredit was associated with better health and nutrition outcomes for both girls and boys (Pitt et al., 2003). The study highlighted the role of Grameen Bank of

Bangladesh, which financed non-agricultural self-employment activities among the rural poor. In a similar study looking at the consumption flow of programme credit, a larger impact effect on the behaviour of women was observed. This was especially true in the case of household expenditure (Pitt & Khandker, 1998). Analogous results have been noted for a commitment savings product in the Philippines, which led to more decision-making power in the household for women, and likewise more purchases of female-oriented durable goods (Ashraf et al., 2006).

Ajide (2021), in his study of "Financial Inclusion and Labour Market Participation Of Women in Selected Countries in Africa" established that a U-shaped relationship existed between the financial inclusion and female labour force participation. It was indicated that although a higher level of financial inclusion was negatively associated with female labour force participation, the impact was not constant. At a certain threshold of financial inclusion, its further increase leads to a rise in female labour force participation rates in Africa, assuming other factors remain unchanged. Such an association between the two variables indicates the marginal effect of financial inclusion on increasing female labour force participation rate, particularly in Africa. Hence, these findings were consistent with the submission of Boserup (1970), who believed that a curvilinear relationship may exist between economic variables and female participation in economic activities. However, the evidence of a U-shaped relationship contradicted the findings of Eastin and Prakash (2013).

Ajide (2021) further reinforced the existing preposition that finance improved the investment opportunities for households and women in business which in turn led to the upliftment of the African women's standards of living (Wale & Makina, 2017; Hendriks, 2019).

5.2. Conditional relationship:

Some studies have highlighted the conditional nature of this relationship, emphasizing the role of factors such as education, social norms, and access to childcare in moderating the impact of financial inclusion on female LFP. According to an article published by The Hindu "One significant barrier for financial inclusion and indeed to economic growth and development is more participation of females in economic activities," Reserve Bank's executive director Shri Neeraj Nigam said, pointing out that official data suggested female labour force participation at 32.8 per cent in FY22, as against over 77% in men (The Hindu, 2024).

5.3. Governmental framework on FI and LFPR:

The Government of India (*GOI*) has taken various steps for generating employment in the country as employment generation coupled with improving employability is the priority of the Government.

The budget of 2023-24 proposed to increase capital investment outlay steeply for the third year in a row by 33 per cent to Rs 10 lakh crore, which would be 3.3 per cent of GDP. This substantial increase in recent years is central to the government's efforts to enhance growth potential and job creation.

The GoI has declared *'Aatmanirbhar Bharat'* package to offer stimulus to business and to alleviate the adverse impact of Covid 19. In this package, the Government is providing fiscal stimulus of more than Rs. 27 lakh Crores. This package includes several long-term schemes/ programmes/ policies for creation of self-reliant country and to create employment opportunities.

Apart from this '*Aatmanirbhar Bharat Rojgar Yojana'* (ABRY) was launched with effect from 1st October, 2020 to motivate employers for generation of new employment opportunities and refurbishment of loss of employment due to Covid-19 pandemic.

In addition, Pradhan Mantri Mudra Yojana (PMMY) was brought by the Government for enabling self-employment. Under this scheme, collateral free loans upto Rs. 10 lakh, are extended to SMEs (micro/small business enterprises) and to individuals to enable them to start or expand business activities.

The GoI is encouraging various projects involving substantial investment and public expenditure on schemes like Prime Minister's Employment Generation Programme (PMEGP), Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), *Pt. Deen Dayal Upadhyaya Grameen Kaushalya Yojana* (DDU-GKY) and *Deen Dayal Antodaya Yojana*-National Urban Livelihoods Mission (DAY-NULM) etc. for employment generation.

The Production Linked Incentive (PLI) schemes is being implemented by the Government with an outlay of Rs. 1.97 lakh crore, for a period of 5 years starting from 2021-22 which have potential for creating 60 lakh new jobs.

The vision of *Viksit Bharat* embodies inclusive development of all sections of the society. The Government has taken various steps to improve women's participation in the labour force and quality of their employment. A number of protective provisions have been incorporated in the labour laws for equal opportunity and congenial work environment for women workers. The Code on Social Security, 2020 has the provisions for enhancement in paid maternity leave from 12 weeks to 26 weeks, provision for mandatory crèche facility in the establishments having 50 or more employees, permitting women workers in the night shifts with adequate safety measures, etc.

The Code on Occupational Safety, Health and Working Conditions (OSH), 2020 has the provisions for the employment of women in the aboveground mines including opencast workings has been allowed between 7 pm and 6 am, and in below ground working between 6 am and 7 pm in technical, supervisory and managerial work where continuous presence may not be required.

The Code on Wages 2019 has provisions that there shall be no discrimination in an establishment or any unit thereof among employees on the ground of gender in matters relating to wages by the same employer, in respect of the same work or work of similar nature done by any employee.

To enhance the employability of female workers, the Government is providing training to them through a network of Women Industrial Training institutes, National Vocational Training Institutes and Regional Vocational Training Institutes.

Further, the Ministry of Skill Development and Entrepreneurship (MSDE) is implementing the National Apprenticeship Promotion Scheme (NAPS) and *Pradhan Mantri Kaushal Vikas*

Yojana (PMKVY) to enhance the employability of youth. Besides these initiatives, various flagship programmes of the Government such as

Make in India, Start-up India, Stand-up India, Digital India, and Housing for All etc. are also oriented towards generating employment opportunities and thereby ensuring greater participation of the labour force.

It may be noted that Reserve Bank of India (RBI) under the aegis of GOI prepared a National Strategy for Financial Inclusion for India during 2019 to 2024 (Vaishnav, 2020). It comprised of the following milestones:

I	**2020:**	**Access to bank for every village within a radius of five kilometres.**
II	**2022:**	**Strengthening of digital financial services.**
III	**2024:**	**Ensuring that every adult has access to a financial service provider through a mobile device.**

These measures and policy framework are bound to create a robust foundation for economic resilience, social equity, and sustained progress, positioning India to achieve its goal of becoming a developed nation.

5.4. Digital financial services:

The role of digital financial services in enhancing financial inclusion and its subsequent impact on female LFP has emerged as a growing area of interest.

The key distinction between FinTech's value proposition and that of traditional banks lies in how they leverage technology. FinTech companies use digital innovation to create new value for customers, focusing on enhancing the end-to-end experience. In contrast, traditional banks primarily use technology to refine their existing processes, aiming to protect their established market positions.

Shen and Huang (2016) asserted that the Internet can significantly lower transaction costs and reduce information asymmetry, enhance the efficiency of risk-based pricing and risk management, and expand sets of feasible transactions. They stated that “digital finance” and “Fintech” facilitated a wide range of financial activities, such as third-party payment, online lending, direct sales of funds, crowd funding, online insurance, and banking.

However, Michelle (2016) opined that digital finance doesn’t have any correlation on financial inclusion in Kenya. Their rationale was that the banking institutions adopted digital financial services to lower operating cost associated with opening and operating branches to improve profitability and financial performance and not to foster financial inclusion.

Governments have realized that switching from cash to digital payments can reduce corruption and improve efficiency. Muralidharan et al., (2016) reported that in India, losses in the pipeline for pension payments were reduced by 47 percent when the payments were made through biometric smart cards rather than cash. A similar phenomenon was reported by Aker et al. (2016) in the case of social benefits being transferred in Niger. When these transfers were made through mobile phones rather than in cash, the variable cost of administering the benefits reduced by 20 percent.

Asongu and Odhiambo (2018) reported that information and Communication Technology (ICT) moderated the relationship between access to finance (in terms of deposit and credits) and female labour force participation rate. Ajide (2021) reported a positive correlation between ICT index and financial inclusion index (FII), He asserted that his findings were consistent with the submission of Asongu and Odhiambo (2018).

A report on Financial Inclusion by World Bank Group (2019), asserted that Digital Technology provided opportunities to increase FI.

5.5 Challenges and Barriers

- Low levels of financial literacy can hinder individuals from effectively utilizing financial services, thereby limiting the impact of financial inclusion on LFP.
- Inadequate financial infrastructure, particularly in rural areas, can pose challenges to accessing and using financial services.
- Restrictive regulatory frameworks can impede the growth of financial institutions and limit access to financial services.

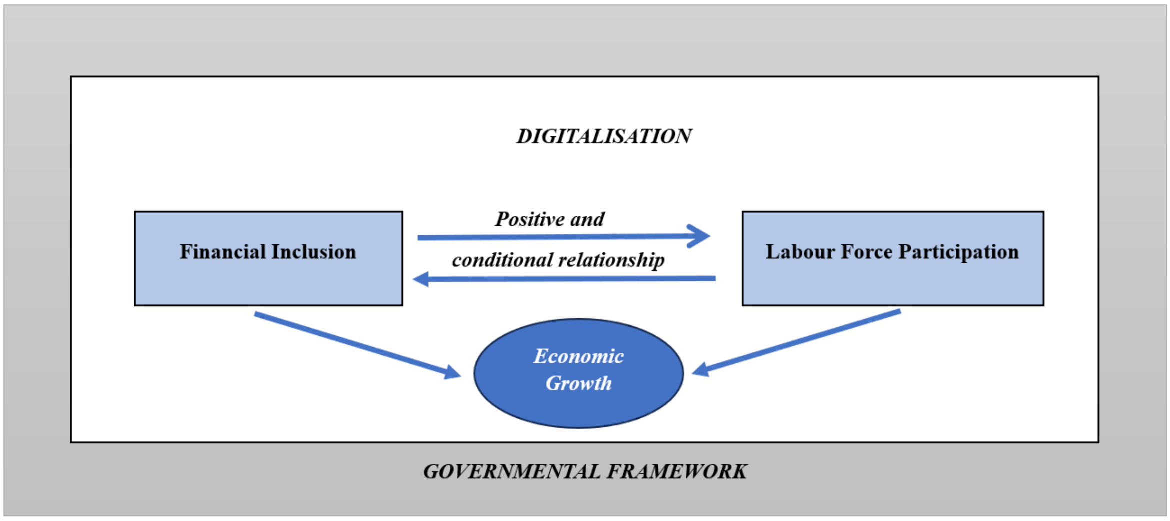
6. RESEARCH GAPS AND FUTURE RESEARCH DIRECTIONS

Despite the growing body of literature, several research gaps remain:

1. There is a need for longitudinal studies to examine the long-term impact of financial inclusion on LFP.
2. Comparative studies across different countries with varying levels of financial inclusion and LFP can provide valuable insights.
3. In-depth qualitative studies may help to understand the underlying mechanisms through which financial inclusion influences LFP.
4. More research is needed to identify effective policy interventions to promote financial inclusion and its impact on LFP.

CONCLUSION

The relationship between financial inclusion and labour force participation is complex and influenced by various factors. While the existing literature provides valuable insights, further research is necessary to deepen our understanding of this relationship and inform evidence-based policymaking. The authors have conceptualized a framework that elucidates the relationship between financial inclusion and labour force participation (Figure1).



(Source: Authors)

Figure 1. Relationship between Financial Inclusion through Labour Force Participation Catalysed by Digitalisation and Governmental Framework

As shown in Figure 1, the Governmental frameworks, such as the *Aatmanirbhar Bharat Rojgar Yojana'* (ABRY), *Pradhan Mantri Jan Dhan Yojana* (PMJDY), *Pradhan Mantri Kaushal Vikas Yojana* (PMKVY), National Apprenticeship Promotion Scheme (NAPS), Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), *Deendayal Antyodaya Yojana*-National Rural Livelihoods Mission (DAY-NULM), and Digitalization, have contributed significantly to financial inclusion by providing access to credit, skills training, employment opportunities, and market linkages.

The Governmental frameworks create the enabling environment for financial inclusion by providing access to financial services, skills training, and employment opportunities. Digitalization facilitates the delivery of these services and reduces transaction costs, making them more accessible to the unbanked and underbanked population. Labor force participation is a key driver of financial inclusion, as it provides individuals with the means to generate income and access financial services. Financial inclusion can in turn enhance labour force participation by providing individuals with the resources to invest in their education and skills, start businesses, and create jobs. Together, these factors contribute to 'Viksit Bharat' (developed India) by promoting economic growth, reducing poverty, and improving the quality of life for all citizens.

Hence it may be summarized that digitalization, labour force participation, and financial inclusion are pivotal in propelling India toward developed nation status. Digitalization drives economic growth by enhancing efficiency, transparency. Increased labour force participation, particularly among women and marginalized communities, ensures that the benefits of economic growth are equitably distributed, leading to a more inclusive and sustainable development model. Financial inclusion, on the other hand, empowers individuals by providing them access to essential financial services, such as credit, insurance, and savings, risk management, poverty alleviation and encourages entrepreneurial activities. Together, these factors create a robust foundation for economic resilience, social equity, and sustained progress, positioning India to achieve its goal of *Viksit Bharat.*

References:

1.Ajide, F. M. (2021). Financial Inclusion and Labour Market Participation of Women in Selected Countries in Africa. Economics and Culture, 18(1), 15-31.

2. Aker, J. C., Boumnijel, R., McClelland, A., & Tierney, N. (2016). Payment mechanisms and antipoverty programs: Evidence from a mobile money cash transfer experiment in Niger. Economic Development and Cultural Change, 65(1), 1-37.

3. Allen, F., Demirgüç-Kunt, A., Klapper, L., & Martinez Peria, M. S. (2016). The Foundations of Financial Inclusion: Understanding Ownership and Use of Formal Accounts. Journal of Financial Intermediation, 27, 1-30. https://doi.org/10.1016/j.jfi.2015.12.003

4. Asfaw, A., Lamanna, F., & Klasen, S. (2009). Gender gap in parents' financing strategy for hospitalization of their children: evidence from India. Health Economics, 19(3), 265–279. https://doi.org/10.1002/hec.1468

5. Ashraf, N., Karlan, D., & Yin, W. (2006). Female Empowerment: Impact of a Commitment Savings Product in the Philippines (December). Yale University Economic Growth Center Discussion Paper No. 949, Center for Global Development Working Paper No. 106. https://ssrn.com/abstract=952784

6.Asongu, S. A., & Odhiambo, N.M., (2018). ICT, financial access and gender inclusion in the formal economic sector: Evidence from Africa, African Finance Journal.

7. Beck, T. (2009). The Econometrics of Finance and Growth. In T. Mills & K. Patterson (Eds.), Palgrave Handbook of Econometrics (Vol. 2) (pp. 891-942). Palgrave Macmillan.

8.Bleaney, M., Greenaway, D., & Stewart, I. (1992). Companion to contemporary economic thought. Routledge.

9. Chiapa, C., Prina, S., & Parker, A. (2015). The Effects of Financial Inclusion on Children's Schooling, and Parental Aspirations and Expectations. Journal of International Development, 28(5), 683–696.

10.Demirguc-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2018). The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution. World Bank Publications.

11. DD News (2024). India accounts for nearly half of the global digital payments: RBI report. Retrieved from: https://ddnews.gov.in/en/india-accounts-for-nearly-half-of-the-global-digital-payments-rbi-report/#:~:text=India%20accounts%20for%20nearly%20half%20of%20the%20world's%20digital%20payments,USD%20115.3%20billion%20in%202023.

12. Fu, J. (2020). Ability or opportunity to act: What shapes financial well-being? World Development, 128, 101628. https://doi.org/10.1016/j.chieco.2021.101628

13. Hendriks, S. (2019). The role of financial inclusion in driving women's economic empowerment, Development in Practice, 29(8), 1029-1038, DOI: 10.1080/09614524.2019.1660308

14. Johnson, S. (2013). From microfinance to inclusive financial markets: the challenge of social regulation. Oxford Development Studies, 41(1), 35–52.

15. Khandker, S. R., Khalily, B., & Khan, Z. (1995). Grameen Bank: Performance and Sustainability. World Bank Discussion Paper No. 306.

16. Kim, K. (2022). Assessing the impact of mobile money on improving the financial inclusion of Nairobi women. Journal of Gender Studies, 31(3), 306–322. https://doi.org/10.1080/09589236.2021.1884536

17. Laricchia, F. (2023). Number of mobile devices worldwide 2020-2025. Retrieved from: https://www.statista.com/statistics/245501/multiple-mobile-device-ownership-worldwide/

18. Levine, R. (2005). Finance and Growth: Theory and Evidence. In P. Aghion & S. N. Durlauf (Eds.), Handbook of Economic Growth (Vol. 1, pp. 865–934). Elsevier.

19. Michelle, A. M. (2016). The effect of digital finance on financial inclusion in the banking industry in Kenya. Unpublished M. Sc. dissertation, University of Nairobi.

20.Morsy H., (2020). Access to finance – mind the gender gap, Quarterly Review of Economics and Finance, doi: https://doi.org/10.1016/j.qref.2020.02.005

21.Muralidharan, K., Niehaus, P., & Sukhtankar, S. (2016). Building state capacity: Evidence from biometric smartcards in India. American Economic Review, 106(10), 2895-2929.

22.Muthusamy, A. (2024). UPI: The world's favourite payment method hits $964 billion in record time. Retrieved from: https://www.livemint.com/money/personal-finance/upi-the-world-s-favourite-payment-method-hits-964-billion-in-record-time-digital-payments-credit-cards-11724997818372.html

23.Pitt, M. M., & Khandker, S. R. (1998). The impact of group-based credit programs on poor households in Bangladesh: Does the gender of participants matter?. Journal of political economy, 106(5), 958-996.

24. Pitt, M. M., Khandker, S. R., Choudhury, N., & Millimet, D. (2003). Credit Programmes for the Poor and the Health Status of Children in Rural Bangladesh. International Economic Review, 44(1), 87–118.

25. Nuobu, R., & Baek, Y. J. (2020). Can Financial Inclusion Be an Effective Mitigation Measure? Evidence from Panel Data Analysis of the Environmental Kuznets Curve. Finance Research Letters, 37(5), 101725. [invalid URL removed]

26.Renzhi, N., & Baek, Y. J. (2020). Can financial inclusion be an effective mitigation measure? evidence from panel data analysis of the environmental Kuznets curve. Finance Research Letters, 37, 101725.

27. Shen, Y., & Huang, Y. (2016). Introduction to the special issue: Internet finance in China. China Economic Journal, 6(2), 1–7.

28. The Hindu (2024, July 06). Only 7% of MSME credit to women; low female labour force participation drag on growth: RBI ED. Retrieved July 23, 2024,

29. Tittenbrun, J. (2013). The Death of the Economic Man. International Letters of Social and Humanistic Sciences, 11,10-34. https://doi.org/10.18052/www.scipress.com/ILSHS.11.10

30. TRAI (2023). Information Note to the Press (Press Release No.8/2023). Retrieved from: https://trai.gov.in/sites/default/files/PR_No.08of2023.pdf

31. Vaishnav, A. (2020). Report Summary National Strategy for Financial Inclusion. Retrieved from: https://prsindia.org/files/policy/policy_committee_reports/Report%20Summary%20-%20National%20Strategy%20for%20Financial%20Inclusion.pdf

32. Wale, L. E., & Makina, D., (2017). Account ownership and use of financial services among individuals: Evidence from selected Sub-Saharan African economies, African Journal of Economic and Management Studies, 8(1), pp. 19-35.

33.World Bank (2022). Retrieved from: https://www.worldbank.org/en/topic/financialinclusion/overview

34.World Bank Group (2019). Financial Inclusion. Retrieved from: https://documents1.worldbank.org/curated/ar/377571554411400279/pdf/Financial-Inclusion.pdf