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Digital Inclusion, Inequality, and Digital Finance towards Inclusive Growth

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Research Article

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Abstract

In this Digital era, inclusive growth is a concern in welfare economics. Financial technologies promise to bridge inequalities and enable inclusive growth. Many studies explore areas of financial inclusion and sustainability; however, disability inclusion remains largely under-researched. This research paper situates disability and gender inclusion as the central determinants of welfare economics and financial inclusion by aligning with the Sustainable Development Goals SDG 1: No Poverty; SDG 5: Gender Equality; SDG 10: Reduced Inequalities. Disabled women face dual disadvantage experiencing both gender inequality barriers in accessing financial systems. Even when financial inclusion is an engine for economic development of India, existing literature incline towards poverty alleviation and rural access overlooking disability-specific issues, and women with disabilities. To address this gap, this study uses Push-Pull-Mooring (PPM) framework to evaluate the impact, adoption and challenges of financial inclusion by Persons with Disabilities (PwD).

1. Introduction

Financial inclusion is defined as access to affordable and appropriate financial services covering savings, credit, insurance, and payment systems. It is widely recognised as the driver of poverty alleviation and sustainable development, enabling households to build resilience, reduce vulnerability, and participate fully in economic life. Collaborative approaches to Fintech adoption in developing economies are essential for aligning financial inclusion with the United Nations Sustainable Development Goals (SDGs).[1]. As per the World Bank Global Findex Report [2], financial inclusion is at a record high, but approximately 1.3 billion are still unbanked and over half of them 650 million are concentrated in eight developing countries, out of which India is one. The report further states that women constitute a major chunk of, 55% of the unbanked population. The gender digital divide further compounds exclusion: cultural norms, socio-economic constraints, and limited digital skills depress smartphone adoption and the uptake of fintech services among women across many regions [3;4;5]. Successive Global Findex rounds show that digital banking payments and mobile banking bolstered household resilience during crises such as the COVID-19 pandemic, accelerating financial inclusion where infrastructure and design permitted [6;7].

To conceptualise these barriers effectively, this study grounds its analysis in an integrated, multi-scalar definition of disability. Theoretically, we adopt the social model of disability [8;9], which distinguishes between an underlying physical or sensory impairment and the external socio-technical structures that disable the individual. This conceptualisation aligns with the global rights-based perspective established by the United Nations [10]. The Convention on the Rights of Persons with Disabilities (UN CRPD) and the World Health Organisation 2011[11] define disability as a dynamic, interactional outcome of the interplay between functional impairments and contextual environmental barriers. Within the Indian research context, this interactional framework is given statutory force by the Rights of Persons with Disabilities (RPwD) Act, 2016 [12]. By explicitly mandating non-discriminatory access to Information and Communication Technology (ICT) ecosystems, national legislation establishes that an inaccessible

digital public interface is not merely an operational oversight, it is the primary structural mechanism that actively disables vulnerable users. Despite all these advancements, Persons with Disabilities (PwD) remain disproportionately excluded. Assistive technology (AT) can empower PwD to be as independent, inclusive, and global good citizens as possible in any field, but unmet needs and barriers remain widespread in India [13]. Persons with intellectual disabilities face structural inequalities in internet access and use, reinforcing digital exclusion [14]. Unrealised potential in digital participation continues to marginalise the disabled population [15]

Viksit Bharat 2047, a roadmap for transforming India into a developed nation, lays down a comprehensive blueprint for transforming the nation into a structurally developed and self-reliant economic powerhouse [16]. A cornerstone of this modernisation strategy is the deployment of scalable Digital Public Infrastructure (DPI), most notably the integration of the Jan Dhan-Aadhaar-Mobile (JAM) trinity and the Unified Payments Interface (UPI) network [17]. This national policy mandates deep financial democratisation, aiming to deliver robust public goods to the absolute frontier of rural and marginalised communities. Information systems literature has evaluated user engagement through highly individual behavioural lenses. The Technology Acceptance Model (TAM) [18] discusses how perceived usefulness and ease of use influence user acceptance. Subsequent iterations, like the Unified Theory of Acceptance and Use of Technology (UTAUT) [19] and its extension (UTAUT 2) [20] view technological migration as a function of personal motivation, social pressures, or individual perceptions of environmental readiness. Similar to use perspectives, the Diffusion of Innovation theory [21] explains how new technologies spread across social systems through innovators, early adopters, and successive user groups. Structural theory [22] underscores the duality of technology, showing how digital systems both shape and are shaped by social practices. This heavy focus on user psychology introduces a major theoretical gap when analysing the marginalised groups targeted by the Viksit Bharat mandate. For a consumer dealing with severe visual, auditory, or locomotor challenges, a banking application that ignores basic web accessibility standards do not present a low level of “perceived ease of use”; it poses an absolute structural wall that makes autonomous use impossible, independent of how motivated the user might be [23]. Instead of viewing technology adoption only as a matter of individual user motivation, the study applies the Push-Pull-Mooring framework to address structural exclusion. By treating accessibility flaws and network gaps as environmental forces rather than user-level shortcomings, this paper offers a grounded lens to measure the reach and accessibility of India’s digital financial revolution.

2. Objectives and Research Questions

2.1 Objectives

- To investigate barriers which prevent PwDs with particular emphasis on disabled women from adopting digital banking services, linking these push factors to systemic perpetuation of poverty (SDG 1).
- To evaluate key enabling drivers that promote financial equity and act as pull factors for adoption of digital banking services (SDG 10)

- To analyse socio-cultural and gender dynamics that limit financial access by using Push-Pull-Mooring (PPM) framework to generate actionable, gender-responsive policy insights (SDG 5).

2.2 Research Questions

- What are the technical, environmental and structural barriers that prevent PwD from autonomously adopting digital banking services, and how do the push factors perpetuate financial vulnerability among disabled women?
- How does the key enabling drivers, like the regulatory mandates, Web Content Accessibility Guidelines (WCAG) compliance, screen-reader compatibility act as pull factors to reduce financial exclusion and adopt inclusive digital ecosystems?
- How can the Push-Pull-Mooring framework be conceptualised to drive gender-responsive digital inclusion and the intersection of gender and disability influence the long-term sustainability of digital banking adoption?

3. Literature Review

Digital inclusion has emerged as a foundational catalyst for equitable participation within modern economic systems, directly shaping access to formal networks, entrepreneurial opportunity, and sustainable development [24, 25]. Crucially, inclusive digital finance is recognised as a vital enabler across the United Nations Sustainable Development Goals (SDGs), most notably in advancing equal access to economic resources (SDG 1.4), fostering women's financial autonomy (SDG 5.a), expanding formal banking capacity (SDG 8.10), and reducing systemic inequalities for PwD (SDG 10.2) [26]. However, a critical synthesis of interdisciplinary literature reveals that the rapid expansion of technology-driven financial channels does not automatically guarantee universal usability. Instead, fintech systems systematically fail to accommodate vulnerable populations unless equity and human-centred design are prioritised [27]. Rather than democratising access evenly, digital financial ecosystems often replicate and accentuate existing structural inequalities across intersecting axes of gender, age, disability, and socioeconomic status [5;28]

To navigate these barriers, marginalised individuals frequently rely on "assisted digital access", a dynamic where individuals must depend on family members, trusted peers, or informal intermediaries to execute digital transactions [29]. While assisted access provides temporary functional utility, it introduces significant security risks, compromises privacy, and undermines individual financial autonomy, particularly for disabled users [30]. Over nearly two decades of fintech innovation, critical evaluations demonstrate that digital interventions frequently privilege speed and transaction volume over human-centred accessibility and value alignment. [31]. Within the strategic horizon of India's Viksit Bharat 2047 framework, bridging these digital divides represents both an institutional imperative and a developmental necessity [17].

3.1. Theoretical Foundations of Digital Inclusion

To move beyond surface-level indicators such as account creation rates or transaction volumes [25], scholars increasingly evaluate digital financial services through interdisciplinary frameworks of social justice and human development [24;32;33]. Amartya Sen's Capability Approach posits that economic development must be measured not merely by income or asset accumulation, but by the expansion of substantive human freedoms, the "capabilities" enabling individuals to achieve states of being and doing they have reason to value [34]. In the context of Digital finance, nominal ownership of a bank account is insufficient; meaningful inclusion requires that users possess the operational literacy, agency, and accessible technological infrastructure necessary to convert basic access into tangible improvements in well-being [33].

Complementing Sen's developmental lens, Nancy Fraser's Three-Dimensional Social Justice Framework critiques structural exclusion across three distinct yet intertwined axes: redistribution, recognition, and representation [32]. When financial system architectures neglect accessibility standards or reinforce gendered financial dependence, they commit institutional misrecognition, subjecting women and PwD to systemic economic disadvantage [35]. Achieving true "parity of participation" demands dismantling these socio-technical barriers so that marginalised cohorts can interact as equal, autonomous actors within the digital economy rather than remaining trapped in cycles of informal dependence or "assisted digital access"[32;33]. Grounding digital finance in Sen and Fraser aligns digital inclusion with the spirit of SDG 10 (reduced inequalities), transforming digital access from a technical convenience into a fundamental human capability.

3.2.Global Implementations and Comparative Models

To examine how institutional and technological contexts shape digital financial inclusion, this section presents a comparative synthesis across key regional archetypes, spanning telecom-led, state-driven, commercial platform, market-driven, rights-based, and open public infrastructure models across both emerging and advanced economies.

Market-led and telecom-driven models, such as Kenya's M-Pesa, demonstrate how low-barrier, agent-based payment networks lower transaction costs and support micro-enterprises. Crucially, empirical evidence shows that democratising peer-to-peer digital transfers can shift intra-household bargaining power, expanding financial agency among women in developing economies in direct alignment with SDG 5.a [36]. Conversely, state-driven models, exemplified by Brazil's digitalisation of the Bolsa Familia social assistance program, highlight the capacity of Government-to-Person (G2P) infrastructure to scale access for low-income populations. By depositing conditional cash transfers directly into digital accounts, state-led systems minimise administrative leakage, foster direct formal participation, and advance poverty alleviation under SDG 1.4 [37;38]

Parallel developments in platform-based "Super-app" ecosystems demonstrate how bundling financial tools with essential everyday services, such as urban mobility, messaging, and digital commerce, accelerates mass payment adoption and reshapes economic participation [39]. Similar super-app trajectories in Southeast Asia, including the Philippines' GCash and Vietnam's MoMo, show private

sector innovation can bridge archipelagic and rural financial divides where traditional brick-and -mortar banking infrastructure remains sparse [40]. However, while these commercial platforms achieve massive operational scale, they often introduce new forms of algorithmic and interface friction for low-literacy or elderly demographics [24].

In High-income post-industrial economies, digital financial inclusion challenges center less on basic transaction infrastructure and more on market-driven credit access and algorithmic equity [41]. In the United States, digital financial inclusion operates primarily through private Fintech platforms, digital-only "neobanks", and Buy-Now-Pay-Later (BNPL) rails. [42]. Furthermore, the historic reliance on costly private money transfer networks and overdraft-heavy traditional accounts underscores how market-driven systems can sustain secondary forms of exclusion even within mature financial sectors. [2]

In contrast to purely private platform models, regulatory and open public infrastructure approaches offer distinct mechanisms for enforcing inclusion by enabling broad access to public and social services through interoperable digital systems [43]. The European Union's European Accessibility Act (Directive 2019/882) demonstrates the importance of legal mandates, requiring public and private banking platforms to comply with strict Web Content Accessibility Guidelines (WCAG 2.1 AA) to dismantle digital barriers for disabled citizens (SDG 10.2) [44]. Meanwhile, India's Unified Payments Interface (UPI), developed under the National Payments Corporation of India (NPCI) in 2016, represents a benchmark in open-architecture Digital Public Infrastructure (DPI). By enabling instant, interoperable transactions across commercial banks and third-party applications, UPI has drastically lowered entry barriers for low-income and rural users, driving mass digitalisation across the economy [45].

3.3 Literature Synthesis

Synthesising this literature reveals a critical conceptual takeaway: expanding technological infrastructure is necessary, but insufficient, for achieving the Sustainable Development Goals. Open public rails like India's UPI and market-driven platforms like M-Pesa achieve significant success in financial redistribution (SDG 1.4 and SDG 8.10) by reducing transaction costs and eliminating financial intermediaries [32;36]. However, without the explicit design mandates seen in frameworks like the European Accessibility Act, public and private digital tools frequently fail to achieve Fraser's standard of recognition for marginalised groups, such as PwD or low-literacy users (SDG 10.2) [44;46].

To translate expanding digital public infrastructure into genuine capability expansion [34] and fulfil the global mandate to "leave no one behind," academic literature must move beyond macro-level adoption metrics. This existing paradigm lacks an empirical framework capable of capturing how structural design failures interact with personal and socio-cultural constraints. Bridging this gap requires an integrated Push-Pull-Mooring (PPM) lens, one that redefines technological inaccessibility not as a user failure, but as a structural push force within the global welfare economy.

4. Research Methodology

4.1. Research Design and Single-Case Strategy

This study adopts a qualitative, desk-based research design utilising systematic documentary synthesis [47;48]. While the majority of information systems literature relies on individual technology acceptance models, such as the Technology Acceptance Model (TAM) or the Unified Theory of Acceptance and Use of Technology (UTAUT/UTAUT2), these frameworks reduce structural exclusion to questions of individual psychological intent. Secondary qualitative synthesis enables the integration of macro-level institutional data with micro-level accounts of lived experiences, generating insights directly relevant to public policy and inclusive design in emerging digital economies [48].

To operationalise the theoretical framework, this paper employs a paradigmatic single-case study design [47] focusing on India's Digital Public Infrastructure (DPI), with specific emphasis on the Jan Dhan-Aadhaar-Mobile (JAM) trinity. India presents a paradigm-defining case for analysing socio-technical inclusion: official figures indicate that accounts registered under the Pradhan Mantri Jan Dhan Yogana (PMJDY) reached 577.1 million (57.71 crore) by early 2026 [49]. The scale of this ecosystem makes India a vital benchmark for evaluating how macro-level policy enablers (Pull factors) interact with localised socio-technical barriers (Push factors) and cultural constraints (Mooring factors).

4.2. Data Sources and Triangulation

Following Synder's (2019) [48] protocol for systematic qualitative synthesis, data were retrieved and triangulated across three distinct analytical tiers published between 2015 and 2026: **Macro-level (Global Repositories)**: Comparative indicators and indicators from the World Bank's Global Findex Database and UNDP Human Development Reports to establish cross-country comparability and situate India's progress within global development trends. **Meso-Level (National Policy and Regulatory Data)**: Statutory frameworks and policy releases, including the Rights of Persons with Disabilities (RPwD) Act (2016) [12], Reserve Bank of India (RBI) financial inclusion indices, and Press Information Bureau (PIB, 2026) [49] statistical updates. **Micro-Level (Academic Socio-Technical Literature)**: Peer-reviewed literature retrieved from Scopus and Google Scholar focusing on mobile App accessibility, Web Content Accessibility Guidelines (WCAG 2.1) compliance, screen-reader navigation, and gendered device ownership.

Data Triangulation across these three tiers ensures construct validity by cross- checking macro-level statistical claims against meso-level policy commitments and micro-level user realities [47].

4.3. Operationalisation of the PPM Framework

Data were coded into the three dimensions of the push-pull-mooring (PPM) framework. Each dimension was linked to relevant Sustainable Development Goals (SDGs), as operationalised in the Table.

Table 1
Operationalisation of the Push-Pull-Mooring (PPM) framework across targeted SDGs

PPM Operational Force	Operational Definition in study	Theoretical Lens and SDG Mapping	Key Data Indicators and variables
Push Factors (Systematic Barriers)	Technical exclusion mechanisms and structural hurdles that create friction, forcing marginalised groups out of autonomous digital finance into economic reliance	Structural Exclusion and Social Model of Disability [50] SDG 1: No Poverty	WCAG non-compliance, unlabelled software buttons, Visual CAPTCHA barriers, lack of screen reader
Pull Factors (Systematic Barriers)	Technological innovations, regulatory mandates, and inclusive infrastructure that draw users toward formal digital financial systems.	Universal design and technological adoption. [51] SDG 10: Reduced inequalities	Multi-modal biometrics, voice-assisted mobile user interfaces, zero-free basic bank accounts, mandatory regulatory accessibility standards.
Mooring Factors (Social and structural anchors)	Socio- cultural constraints, patriarchal power dynamics, and institutional distrust that anchor individuals in traditional, non-digital financial habits	Intersectionality and social capital theory [52] SDG 5: Gender equality	Intra-household "device rationing," reliance on male relatives for financial management (proxy usage), digital illiteracy, privacy and fraud concerns.

5. Findings and Discussion

5.1.Pull Factors: Expanding Access and SDG 1 (No Poverty)

India’s financial inclusion journey demonstrates remarkable structural progress at the macro level. The World Bank Global Findex 2025 [2] reports that 89% of Indian adults now hold a formal bank account, positioning India among the most digitally advanced developing economies. This expansion functions as a powerful Pull factor, establishing a structural gateway into formal banking.

Within the PMJY framework, Direct Benefit Transfers (DBT) leverage Aadhaar-linked accounts to deliver social subsidies, pensions, and emergency relief directly into household accounts, bypassing informal financial intermediaries and cushioning vulnerable families against economic shocks. Official national statistics confirm that PMJY account ownership has expanded to 577.1 million beneficiaries, with women constituting 55% of account holders [49]. Furthermore, the integration of micro-insurance schemes, such as the Pradhan Mantri Suraksha Bima Yojana (PMSBY), extends affordable accident and disability coverage to historically marginalised demographics. By coupling identity, connectivity, and banking, the JAM trinity directly supports SDG 1 (No Poverty) by building baseline financial resilience.

5.2. Push Factors: Accessibility Barriers and SDG 10 (Reduced Inequalities)

Despite impressive registration figures, severe operational exclusion persists at the user interface level. Digital banking applications frequently operate as Push factors, generating artificial barriers that undermine SDG 10 (Reduced Inequalities). Empirical accessibility audits reveal pervasive technical flaws, including unlabelled interactive elements, missing alternative text, and fundamental incompatibility with screen-reading software [53]. Security features create an acute “security paradox”: dynamic PIN keypads and visual CAPTCHAs designed to prevent fraud inadvertently block Visually Impaired (VI) users who depend on consistent interface layouts [54]. Similarly, rapid session Timeout windows fail to accommodate the extended navigation time required by assistive technology users [41]. Although the RBI’s Digital Banking Channels Association directives (2026) [55], mandated strict WCAG 2.1 compliance, private and commercial banking applications remain largely non-compliant. As Kameswaran and Marathe [33] observe, VI individuals are forced to convert routine financial tasks into constant “advocacy work”, systematically stripping them of autonomy and reinforcing structural dependency.

5.3. Mooring Factors: Gender-Disparity Dynamics and SDG 5 (Gender Equality)

The PPM analysis reveals that Mooring factors, deeply entrenched social and cultural anchors, restrict digital adoption even when technological infrastructure exists. Gender and disability intersect to create compound marginalisation, directly impeding SDG 5 (Gender Equality). In low-income and rural households, smartphone ownership is heavily gendered; male family members routinely control mobile hardware, resulting in “device rationing” for female household members [56]. Because digital banking is not optimised for autonomous screen-reader navigation, VI women are forced to share PINs and credentials with family members to complete transactions, surrendering with family members to complete transactions, surrendering financial confidentiality [30;56]. Formal account ownership on paper does not equate to economic empowerment if socio-cultural moorings deny individuals private control over their financial assets [57]. The resulting loss of agency and fear of transaction errors reinforce informal dependencies, stalling progress toward gender equity.

5.4. Synthesis Across PPM forces

The findings show that the pull factors are achieved by infrastructure expansion, enabling access (SDG 1). Push factors through technical exclusions block usability (SDG 10). Mooring factors, through Socio-cultural anchors, restrict agency (SDG 5). India’s DPI case illustrates that financial inclusion is multidimensional. Infrastructure provides reach, accessibility ensures usability, and socio-cultural change secures agency. Without integrating all three, the promise of inclusion remains incomplete.

6. Policy Recommendations

To translate these findings into actionable strategies, we propose a tri-pronged policy matrix aligned with the PPM framework and targeted SDGs.

Table 2
Tri-pronged Policy Matrix for Accessible Digital Public Infrastructure

PPM operational	Proposed policy Intervention	Implementation Mechanism and Reference Source
Central Banking Authorities (RBI) – Push Factors (Accessibility)	Strict audit and enforcement of digital accessibility mandates.	Mandate quarterly third-party accessibility audits evaluating compliance standards [59] and WCAG 2.1 standards.
Fintech UI/UX developers (Usability)	Inclusive design by default	Replace visual CAPTCHAs with accessible multi-modal alternatives, eliminate dynamic keypad scrambling for screen-reader accounts, and extend session timeout limits [31]
Ministries & Fintech startups - Pull Factors (Scaling)	DPI Integration and Assistive Fintech	Expand DBT coverage for disability pensions and leverage public-private partnerships to fund assistive fintech innovations tailored for low-literacy users [53]
Civil society and Social Welfare Ministries – Mooring Factors (Agency)	Gender-Responsive Digital Literacy and Independence	Fund self-help groups (SHGs) digital literacy cohorts focused on privacy, and subsidise independent device ownership for disabled women to dismantle proxy usage dependencies [57]

7. Conclusion

By adapting the Push-Pull-Mooring (PPM) framework, this study has evaluated the dynamic interaction between macro-level digital public infrastructure achievements and micro-level operational realities among marginalised populations in India. The secondary analysis reveals a central paradox: while population- scale DPI initiatives have generated power pull factors- enabling 89% of adults to hold formal accounts and fulfilling quantitative metrics for SDG 1 (No Poverty) - interface defects and socio-cultural barriers continue to restrict daily usability.

Inaccessible software design functions as an active Push factor, converting routine financial management into frustration and enforced dependency, thereby undermining SDG 10 (Reduced Inequalities). Simultaneously, intra-household power asymmetries and proxy transaction reliance act as rigid Mooring factors, eroding transactional privacy and stalling progress toward SDG 5 (Gender Equality).

Ultimately, numerical account ownership cannot serve as a proxy for meaningful digital inclusion. Genuine inclusion requires enabling independent digital agency, a system wherein every citizen can navigate, control, and manage their financial resources securely and autonomously. Only by

synchronising infrastructure reach, universal accessibility, and socio-cultural empowerment can Digital Public Infrastructure evolve from registration statistics into authentic economic liberation.

Declarations

Competing Interests:

The authors declare that they have no competing financial or non-financial interests that are directly or indirectly related to the work submitted for publication.

Declarations of Generative AI and AI-Assisted technologies

The author confirms that no generative artificial intelligence (AI) tools or AI-assisted writing technologies were used in the analysis, writing or editing of this manuscript. All work was performed independently by the authors.

Ethics Approval and consent to participate:

is not applicable. This study relies exclusively on secondary research and qualitative synthesis of publicly available literature and government reports; no human subjects or private personal data were involved.

Author's Contributions

Rajasree J and Dr. Anjali P.K. contributed solely to the conceptualisation, theoretical integration, methodology, qualitative synthesis, writing, and final editing of the manuscript.

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Author Contribution

All authors contributed to the study conception and design. RJ: Conceptualisation, Methodology, Literature Search, Secondary Data Collection and Curation, Qualitative/Policy Synthesis, Writing – Original Draft, Writing – Review & Editing.APK: Conceptualisation, Methodology, Supervision, Project Administration, Validation, Writing – Review & Editing.

Data Availability

Data Availability Statement:This study relies exclusively on secondary research and qualitative synthesis of publicly available literature, institutional databases, and government reports. No primary raw dataset was generated during this research. All public datasets, policy reports, and statutory documents used during the study are accessible at the following open-access repositories and international portals:• World Bank Global Findex Database https://www.worldbank.org/en/publication/globalfindex• Pradhan Matri Han Dhan Yojana (PMJDY) progress reports (Ministry of Finance, Government of India): https://www.pib.gov.in/PressReleasePage.aspx?PRID=2303702• The Rights of Persins with Disabilities (RPwD) Act, 2016 (Gazette of India): https://egazette.gov.in/• Reserve Bank of India (RBI) Digital Banking Guidelines: https://www.rbi.org.in/• UN Convention on the Rights of Persons with Disabilities (CRPD): https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html• WHO/ World Bank Word Report on Disability: https://www.who.int/publications/i/item/9789241564182• NITI Aayog Official Reports: https://www.niti.gov.in/publication/annual-report

References

1. Danladi SP. Attaining Sustainable Development Goals through Financial Inclusion: Exploring Collaborative Approaches to Fintech Adoption in Developing Economies. Sustainability. 2023;15(17):13039. https://doi.org/10.3390/su151713039.
2. Bank W. (2025). *The Global Findex Database.* World Bank group. Retrieved from https://www.worldbank.org/en/publication/globalfindex
3. Acilar A. S. Ø. (2023). Towards understanding the gender digital divide: a systematic literature review. *Global Knowledge, Memory and Communication*, Vol. 72 No. 3 pp. 233–249. https://doi.org/10.1108/GKMC-09-2021-0147
4. Ameen N. An examination of the gender gap in smartphone adoption and use in Arab countries: A cross-national study. Comput Hum Behav. 2018;89:148–62. https://doi.org/10.1016/j.chb.2018.07.045.
5. Chen SD. The fintech gender gap. J Financ Intermediation. 2023;54:101026. https://doi.org/10.1016/j.jfi.2023.101026.
6. Demirgüc-Kunt AK. (2015). *The Global Findex Database 2014: Measuring Financial Inclusion around the World.* Policy Research Working Papers, No. 7255. The World Bank, Washington. https://doi.org/10.1596/1813-9450-7255
7. Demirgüç-Kunt AK. The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19. Washington DC: World Bank; 2022. https://doi.org/10.1596/978-1-4648-1897-4.
8. Ojo TA. Women, Gender, and Financial Inclusion. Digit Policy Stud. 2023;2(1):64–70. https://doi.org/10.36615/dps.v2i1.1249.
9. Oliver M. The Politics of Disablement — New Social Movements. The Politics of Disablement. Critical Texts in Social Work and the Welfare State. London: Palgrave; 1990. pp. 112–31.

https://doi.org/10.1007/978-1-349-20895-1_8.

10. Nations U. (2006). *Convention on the Rights of Persons with Disabilities (CRPD). United Nations Treaty Series.* Retrieved from Retrieved from https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html
11. World Bank WH. (2011). *World report on disability 2011.* World Health Organization. Retrieved from https://www.who.int/publications/i/item/9789241564182
12. The Rights of Persons with Disabilities Act, 2. (2016). Act No. 49 of 2016. Government of India, Gazette of India (2016). Retrieved from https://egazette.gov.in/
13. Senjam S, M. S. Assistive technology usage, unmet needs and barriers to access: a sub-population-based study in India. LANCET Reg Health Southeast Asia. 2023;15:100213. 10.1016/j.lansea.2023.100213.
14. Glencross S. (2021). Motivational, demographic and contextual factors associated with digital inequality experienced by people with intellectual disability. *[Doctoral dissertation, University of the Sunshine Coast]*. https://doi.org/10.25907/00085
15. Dobransky K. Unrealized potential: Exploring the digital disability divide. Poetics. 2026;58:18–28. https://doi.org/10.1016/j.poetic.2016.08.003.
16. Finance Mo. (2024). *Union budget 2024–2025.* Department of Economic Affairs, Government of India. Retrieved from https://www.indiabudget.gov.in/
17. Aayog N. (2026). *Annual report 2025–26.* Government of India. Retrieved from https://www.niti.gov.in/publication/annual-report
18. Davis FD. Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Q. 1989;13(3):319–40. https://doi.org/10.2307/249008.
19. Venkatesh VM. User Acceptance of Information Technology: Toward A Unified View. MIS Q. 2003;27(3):425–78. https://doi.org/10.2307/30036540.
20. Venkatesh VT. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*(Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology), 36(1), 157–178. https://doi.org/10.2307/41410412
21. Rogers EM. Diffusion of innovations. 5th ed. Free; 2003.
22. Orlikowski WJ. The duality of technology: Rethinking the concept of technology in organizations. Organ Sci. 1992;3(3):398–427. https://doi.org/10.1287/orsc.3.3.398.
23. Jaeger PT. Disability and the Internet: Confronting a Digital Divide. Lynne Reiner; 2011.
24. Karanfiloğlu M. Digital literacy as a catalyst for sustainable development. In I. M, editor, Digital literacy as a catalyst for critical thinking: From media to artificial intelligence. Cham. doi: Springer; 2025. pp. 155–88. https://doi.org/10.1007/978-3-031-96720-7_8.

25. Feyen EN. FinTech and the future of finance: Market and policy implications. World Bank. 2023. https://doi.org/10.1596/978-1-4648-1914-8.
26. Nations. U. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development (A/RES/70/1).* UN General Assembly. Retrieved from https://sdgs.un.org/2030agenda
27. Lye CT. A systematic literature review of fintech, financial inclusion and vulnerable groups. Discov Sustain. 2025;6:1467. https://doi.org/10.1007/s43621-025-02368-2.
28. Longoria IA-I-B-M. Systematic Mapping of Digital Gap and Gender, Age, Ethnicity, or. Sustainability. 2022;14(3):1297. https://doi.org/10.3390/su14031297.
29. Lizzie Coles-Kemp NR. (2022). Protecting The Vulnerable: Dimensions of Assisted Digital Access. *Proc. ACM Hum.-Comput. Interact.*, (pp. Article 534, 26 pgs.). https://doi.org/10.1145/3555647
30. Kameswaran VV. (2023). Advocacy as access work: How people with visual impairments gain access to digital banking in India. *Proceedings of the ACM on Human-Computer Interaction*, (pp. Vol. 7, No. CSCW1, Article 120.). https://doi.org/10.1145/3579596
31. Priyanka Verma CB. (2025). 17 Years of Fintech for Financial Inclusion: A Systematic Review and Critical Value Analysis. *Proc. ACM Hum.-Comput. Interact.*, (p. 9, 7, Article CSCW358, 33 PAGES). https://doi.org/10.1145/3757539
32. Fraser N. Scales of justice: Reimagining political space in a globalizing world. Columbia University; 2009.
33. Robeyns I. Wellbeing, freedom and justice: The capability approach re-examined. Open Book Publishers. 2017. https://doi.org/10.11647/OBP.0130.
34. Sen A. Development as freedom. Oxford University Press; 1999.
35. Chaudhry V. Living at the Edge: Disability, Gender, and Neoliberal Debtscapes of Microfinance in India: Disability, Gender, and Neoliberal Debtscapes of Microfinance in India. Affilia. 2016;31(2):177–91. https://doi.org/10.1177/0886109915622525.
36. Suri T. The long-run poverty and gender impacts of mobile money. Science. 2016;354(6317):1288–92. https://doi.org/10.1126/science.aah5329.
37. Hunter W. Transforming Subjects into Citizens: Insights from Brazil's Bolsa Família. Perspect Politics. 2014;12(4):829–45. 10.1017/S1537592714002151.
38. Fassarella EF. Social mobility and CCT programs: The Bolsa Família program in Brazil. World Dev Perspect. 2024;35., Article 100624. https://doi.org/10.1016/j.wdp.2024.100624.
39. He WS. Exploring the role of mobile payment adoption in China: An empirical analysis of Alipay and WeChat Pay. Acta Psychol. 2025;259., Article 105345. https://doi.org/10.1016/j.actpsy.2025.105345.
40. Truong NH. (2024). A literature review on the development of fintech in Southeast Asia. In *Exploring global fintech advancement and applications*, (pp. 42–108). 10.4018/979-8-3693-1561-3.ch003
41. Puli LL. Financial inclusion for people with disability: a scoping review. Global Health Action. 2024;17(1). https://doi.org/10.1080/16549716.2024.2342634.

42. Maesen S. Buy Now, Pay Later: Impact of Installment Payments on Customer Purchases. J Mark. 2025;89(3):13–35. https://doi.org/10.1177/00222429241282414.
43. Ozili P. Digital Public Infrastructure: Concepts, Global Efforts, Benefits, Challenges, and Success Stories. Digit Soc. 2025;4:30. https://doi.org/10.1007/s44206-025-00185-8.
44. Ferri D, F. S. Web Accessibility for People with Disabilities in the European Union: Paving the Road to Social Inclusion. Societies. 2018;8(2):40. https://doi.org/10.3390/soc8020040.
45. Sharma AB. Financial inclusion: An impetus to the digitalization of payment services (UPI) in India. J Asian Finance Econ Bus. 2022;9(9):191–203. https://doi.org/10.13106/jafeb.2022.vol9.no9.0191.
46. Seshagiri N. Digital Inclusion Strategies for Marginalized Communities. International J Innovative Res Humanities Technology. 2025;8(2):01–16. 10.67228/3071561X/IJIRHT-2025PII9M5Q.
47. Yin RK. Case Study Research and Applications. 6th ed. SAGE; 2018.
48. Snyder H. Literature review as a research methodology: An overview and guidelines. J Bus Res. 2019;104:333–9. https://doi.org/10.1016/j.jbusres.2019.07.039.
49. Bureau., P. I. (2026). *Pradhan Mantri Jan Dhan Yojana (PMJDY) reaches milestone 577 million accounts: Progress report.* Ministry of Finance, Government of India. Retrieved from https://www.pib.gov.in/PressReleasePage.aspx?PRID=2303702®=48‹=2.
50. Oliver M. (1990). The Politics of Disablement — New Social Movements. In: The Politics of Disablement. *Critical Texts in Social Work and the Welfare State*, pp 112–131. https://doi.org/10.1007/978-1-349-20895-1_8
51. Bansal HS. Migrating to new service providers: Toward a unifying framework of consumers' switching behaviors. J Acad Mark Sci. 2005;33(1):96–115. https://doi.org/10.1177/0092070304267928.
52. Crenshaw K. Mapping the margins: Intersectionality, identity politics, and violence against women of color. Stanford Law Rev. 1991;43(6):1241–99. https://doi.org/10.2307/1229039.
53. XRCVC. (2024). Accessible ATMs in India – A Retrospective and Prospective View. *Policy Paper*. The Xavier's Resource Centre for the Visually Challenged. Retrieved from https://xrcvc.org/advocacy/financial-access.htm
54. Wentz BP. Exploring the accessibility of banking and finance systems for blind users. First Monday. 2017;22(3). https://doi.org/10.5210/fm.v22i3.7036.
55. India. RB. (2026). *Master Direction – Master Directions on Digital Banking Channels Authorisation.* Reserve Bank of India. Retrieved from https://www.rbi.org.in
56. Sinha G. Transforming gender relations through digital financial inclusion in India. J Asian Afr Stud. 2026;61(1):791–805. https://doi.org/10.1177/00219096241300439.
57. Duvendack MS. Gender Inclusivity of India's Digital Financial Revolution for Attainment of SDGs: Macro Achievements and the Micro Experiences of Targeted Initiatives. Eur J Dev Res. 2023;35:1369–91. https://doi.org/10.1057/s41287-023-00585-x.