

Digital Payment Adoption and Financial Inclusion Among Rural Youth in India

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Peer Review Information	Abstract
<p>Type: Article Received: 20 March 2026 Revised: 03 April 2026 Accepted: 21 May 2026 Published: 03 June 2026</p>	<p>This Systematic Literature Review (SLR) synthesizes evidence from 27 studies including peer-reviewed articles, government surveys, industry reports, and empirical research to investigate the adoption of digital payment systems and their role in the financial inclusion of India's rural youth. The body of reviewed literature ranges from broad macroeconomic analyses of the digital landscape and household-level surveys to targeted impact assessments and studies on the behavioral intentions of young Indians. It further incorporates urban-rural comparisons and policy evaluations of various government initiatives. Collectively, these sources highlight four primary barriers preventing rural youth from fully utilizing digital financial services. These include infrastructure deficits, such as unreliable connectivity and limited access to hardware or electricity; a significant gap in digital literacy among first-generation users; concerns regarding security and cyber fraud; and regulatory hurdles like complex KYC norms and low disposable income. While UPI transactions saw exponential growth between 2017 and 2020, findings indicate this progress is unevenly distributed, leaving rural youth underrepresented despite their importance to the national digital agenda. Research consistently identifies youth, higher education, and male gender as predictors of adoption, while socio-cultural factors and geographic isolation continue to disadvantage rural women and marginalized groups. Ultimately, the review suggests that policy interventions must be localized and youth-centric, addressing these barriers as an interconnected web rather than isolated issues.</p> <p>Keywords: Digital Payment Systems; Financial Inclusion; Rural Youth; Digital Literacy; Unified Payments Interface; Financial Technology Adoption; Rural Development; Cybersecurity Awareness; Digital Divide; Rural Banking.</p>

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Introduction

India's rural landscape is currently undergoing a profound economic transformation, fueled in large part by the rapid spread of digital payment technologies. With over 65% of the population residing in rural areas—many of whom have historically been excluded from formal financial services [18, 21]—the urgency of extending digital infrastructure to these communities is clear. Rural youth, typically defined as those aged 15 to 35 living in non-urban settings, represent a pivotal demographic in this shift. Their natural adaptability to technology and their role as future economic drivers position them as both the primary beneficiaries and the leading catalysts of a more inclusive digital economy. However, evidence suggests that digital payment adoption among rural youth still lags significantly behind their urban peers, held back by a complex web of structural, behavioral, and policy-related obstacles [19, 26].

The expansion of digital payment platforms in India has been remarkable by any standard. Launched in 2016 by the National Payments Corporation of India (NPCI), the Unified Payments Interface (UPI) revolutionized money transfers by enabling instant, secure, and affordable transactions across various banking institutions [10]. Between April 2017 and December 2020, UPI transaction volumes surged from 17.9 million to over 2.23 billion, with half of all new users originating from Tier 3–6 cities—a clear sign of penetration into previously underserved semi-urban and rural markets [11]. Currently valued at US\$3 trillion, India's digital payments market is projected to surpass US\$10 trillion by 2026, with Tier 3–6 locations accounting for 60–70% of new mobile payment customers over the last two years [12]. While these aggregate figures point toward a structural democratization of finance, they often mask critical disparities regarding which segments of the rural population are actually participating.

The persistent challenges to financial inclusion in rural India are deeply embedded in broader developmental gaps. According to the NABARD All India Rural Financial Inclusion Survey (2021–22), rural households still struggle with significant deficits in financial literacy, limited access to digital transaction methods, and a lack of trust in formal institutions [9]. While the TRAI Telecom Services Performance Indicators report for early 2022 noted a national broadband subscriber base of 788.30 million, rural tele-density and reliable data connectivity continue to lag far behind urban standards [16].

The gender dimension of this digital divide is equally pronounced. Analysis at the SAARC level confirms that lower educational attainment, unemployment, and rural residency remain the primary drivers of reduced digital financial inclusion, contributing to a persistent gender gap across the region [5]. In the Indian context, however, evidence suggests that fintech adoption can reduce this gender gap in financial access by 23% and increase formal credit access by 31% among previously unbanked populations [15]. These figures highlight the immense transformative potential of digital interventions, provided that the specific barriers facing rural youth are systematically addressed.

This Systematic Literature Review is structured to address four central analytical questions: First, what specific barriers hinder digital payment adoption among rural youth? Second, how do adoption patterns in rural areas compare to those of urban youth? Third, what government initiatives have been implemented, and what has been their measurable impact? Finally, what policy and programmatic interventions are necessary to bridge the remaining gaps? By synthesizing 27 sources—ranging from empirical research and government reports to industry analyses—this review offers a comprehensive, evidence-based assessment that specifically highlights the experiences of rural youth, rather than treating them as a monolith within the broader rural population [1, 2, 17].

Methodology

Selection and Use of the 27 References

This review follows a systematic methodology, drawing upon a curated corpus of 27 pre-identified references. The literature base is comprised of several distinct categories: empirical, survey-based studies from peer-reviewed journals [1, 2, 6, 7, 15, 18, 19, 27]; high-level industry and policy reports from organizations including the BCG-PhonePe Pulse [12], GSMA [3], NABARD [9], TRAI [16], and RBI [13, 14]; and academic papers focusing on specific thematic dimensions of digital payment adoption and financial inclusion [5, 10, 11, 20, 22, 23, 24, 25, 26]. Every one of the 27 sources was utilized in this synthesis, with their original authoritative reference numbers preserved exactly as assigned.

The literature reviewed spans from India-specific empirical analyses to international comparative studies that provide essential contextual benchmarks. To ensure a comprehensive capture of evidence, studies were included regardless of their sample size or specific methodology. However, any limitations—particularly in studies that examine general rural populations without disaggregating data specifically for youth—are explicitly addressed within the synthesis. The references cover a research period from 2020 to 2026, with a high concentration of studies from 2024 and 2025. This density reflects the rapid and ongoing evolution of India's digital payments ecosystem during these peak years of transformation.

Thematic Categorization

Following an iterative coding of key findings, the 27 references were organized into five distinct thematic clusters: (i) infrastructure and connectivity [4, 8, 11, 16, 18]; (ii) digital and financial literacy [1, 7, 10, 20, 26]; (iii) behavioral factors, trust, and security [2, 6, 19, 22, 23]; (iv) government policy and regulatory frameworks [9, 13, 14, 21, 24, 25]; and (v) comparative urban-rural dynamics and financial inclusion outcomes [3, 5, 12, 15, 17, 27]. Many of these studies contributed to multiple themes, a reflection of how deeply interconnected the barriers to digital payment adoption truly are.

Distinction Between Youth-Focused and General Studies

A clear methodological distinction was maintained between research specifically targeting rural youth and studies examining the broader rural population. Youth-specific studies include those that directly surveyed young respondents [1, 6, 20], utilized age as a primary predictor variable [27], or analyzed youth-oriented behavioral patterns regarding digital payment adoption [2, 7]. In contrast, general rural studies [9, 18, 21, 24, 25, 26] were employed to establish the wider context of the rural environment, though their specific applicability to youth is noted with appropriate caution. Additionally, studies focusing on urban youth [1] served as comparative benchmarks to highlight adoption disparities. Finally, industry reports [3, 12] provided aggregate market data, which was interpreted through a rural youth lens whenever disaggregated data allowed for such an analysis.

Findings and Thematic Analysis

Barriers to Digital Payment Adoption Among Rural Youth

Infrastructure Deficits

Infrastructure remains the most foundational barrier to digital payment adoption among rural youth in India. The availability of smartphones, reliable internet connectivity, uninterrupted electricity, and functional point-of-sale (POS) or QR acceptance infrastructure collectively determines whether rural youth can even access digital platforms, irrespective of their awareness or motivation [4, 8, 16, 18].

While India has seen a massive surge in 5G deployment reaching 99.9% of districts by late 2025, a significant gap in service quality persists between urban and rural environments [12, 16]. Rural teledensity remains substantially lower than urban figures, reflecting fewer devices per person and uneven network stability [16, 24]. For rural youth, who often rely on real-time Unified Payments Interface (UPI) transactions, slow or unstable connections frequently lead to transaction failures, which directly erodes user confidence and pushes them back toward cash-based alternatives [4, 11]. Furthermore, while smartphone ownership among those aged 15–29 is high (exceeding 95% for those who own a mobile phone), shared device usage remains a common reality in rural households, where approximately 18% of users access the internet through someone else's device [2, 22]. This reliance on shared hardware, coupled with inconsistent electricity for charging, creates a physical friction that urban youth rarely encounter.

Internet penetration data reveals a stark picture of structural inequality. The IAMAI-Kantar ICUBE 2020 report estimated that rural internet users reached approximately 299 million in 2020, following a 13% year-over-year growth [4]. While this progress is significant, the ICUBE 2022 report highlighted that mobile phones remain the near-exclusive gateway to the internet in rural India. Furthermore, usage remains heavily skewed toward entertainment, communication, and social media, with financial transactions featuring far less prominently [8].

For rural youth, simple internet access does not automatically lead to digital payment adoption. Instead, a series of additional friction points including the need for sufficient bandwidth to support real-time apps, stable network coverage during the transaction window, and the ongoing affordability of data plans act as significant hurdles [18, 26].

The TRAI Indian Telecom Services Performance Indicators report for January–March 2022 documented a total broadband subscriber base of 788.30 million, yet rural tele-density remained significantly below urban levels, with rural telephone subscribers recorded at 523.21 million [16]. This connectivity gap has direct implications for the ability of rural youth to consistently execute digital transactions. Network disruptions and transaction failures during payment attempts are identified as trust-eroding events that discourage sustained adoption [19, 26]. Studies on UPI usage in rural India specifically note that patchy internet and electricity supply are among the most persistent obstacles to scaling digital payment adoption [26], with remote areas being disproportionately affected.

The RBI's Report on Trend and Progress of Banking in India 2021–22 [13] highlights the expansion of banking infrastructure through Business Correspondents (BCs) as a vital last-mile strategy. By combining digital payment systems with human facilitation, the BC model provides essential support for rural communities that may otherwise struggle with purely automated systems. For rural youth, these correspondents act as trusted intermediaries who can bridge digital literacy gaps and offer direct transactional assistance, effectively lowering the skill threshold needed for independent digital payment use. The strategic expansion of BC networks in underserved regions thus serves as a key policy instrument, with specific relevance for advancing the financial inclusion of rural youth.

Table 1. Urban vs. Rural Digital Adoption Indicators in India (2022)

Indicator	Urban India	Rural India	Source
Active Internet Users (2022)	360 million	399 million	[8]
Digital Payment Penetration	61%	30%	[8]
Internet Penetration Rate	71%	31%	[8]
Telephone Subscribers	22.88 million (wireline)	523.21 million (total)	[16]
Internet Subscribers per 100 Population	102.82	37.06	[16]
Tele-density	134.94%	58.07%	[16]
Digital Payment Adoption (State-level Study)	84.6%	46.8%	[19]

Financial Inclusion Programs

The Pradhan Mantri Jan Dhan Yojana (PMJDY), launched in 2014, has been the cornerstone of India's financial inclusion agenda, providing zero-balance savings accounts, RuPay debit cards, accidental insurance, and overdraft facilities to previously unbanked households. PMJDY data indicates a dramatic expansion in formal account ownership, with account penetration rising from 53% in 2014 to 77.5% by 2021 [9]. For rural youth, PMJDY accounts provide the banking foundation upon which digital payment services can be layered—enabling UPI linkage, Direct Benefit Transfer receipt, and mobile banking access [21, 27]. However, the transition from account ownership to active digital transaction usage requires additional enabling conditions that PMJDY alone does not provide.

The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) addresses the digital literacy dimension of rural financial exclusion, targeting six crore rural household members for digital skills training [25]. For rural youth, PMGDISHA represents a direct intervention against the skills and awareness barriers documented across multiple studies [10, 18, 26]. The recommendations of Licy and Scaria [10] for targeted digital literacy programs in rural and semi-urban areas to empower first-time users align precisely with PMGDISHA's mandate, though the program's intensity and follow-through at the village level remain variable.

Direct Benefit Transfer (DBT) via the Public Financial Management System (PFMS) has been instrumental in habituating rural youth to digital transactions. By digitally routing government welfare payments—including scholarships, MGNREGA wages, and agricultural subsidies—directly into linked bank accounts, the system creates a consistent and reliable touchpoint with formal finance [21]. Khushi and Krishna Pankaj [21] observe that DBT has effectively expanded digital payment usage beyond voluntary consumer behavior, establishing a compulsory first experience that serves as a critical adoption gateway.

This socialization of digital payment behavior is a particularly powerful policy lever for historically excluded populations [24, 25]. Government data from early 2026 indicates that DBT transfers reached a milestone of 5.6 lakh crore in the 2025–26 financial year, with over 210 crore transactions processed through PFMS by December 2025 [1.3, 2.1]. For rural youth, the transition from merely receiving these funds to actively using them for digital payments represents a shift from financial access to meaningful financial usage [4.1]. By providing a transparent audit trail and removing intermediaries, DBT builds the foundational institutional trust necessary for youth to engage more deeply with the broader digital economy [4.4, 4.5].

JAM Trinity as Foundational System

The JAM Trinity—comprising Jan Dhan accounts, Aadhaar biometric identity, and Mobile connectivity—serves as the core architecture for India's digital financial inclusion. By integrating a universal biometric ID (Aadhaar) with a formal bank account (Jan Dhan) and mobile access, JAM creates a digital infrastructure that significantly lowers the documentation and proximity hurdles to financial participation [21, 27]. For rural youth, the Aadhaar-enabled Payment System (AePS) is particularly relevant, as it allows biometric authentication to replace traditional PINs. This enables digital transactions without the strict requirement for a personal smartphone, directly addressing the device ownership gap [25].

The integration of UPI with the PMJDY framework represents a major milestone for this system. In their logit regression analysis of UPI adoption in rural Aligarh, Haque, Azeez, and Akhtar [27] found that while holding a Jan Dhan account alone does not significantly increase the likelihood of using UPI, the synergy of younger age, higher education, and mobile access is a strong predictor of adoption. This suggests that the JAM components are most effective when all three elements are active and accessible to rural youth. To fully unlock this potential,

the study emphasizes the need for targeted financial literacy, gender-specific outreach, and behavioral incentives for low-income groups [27].

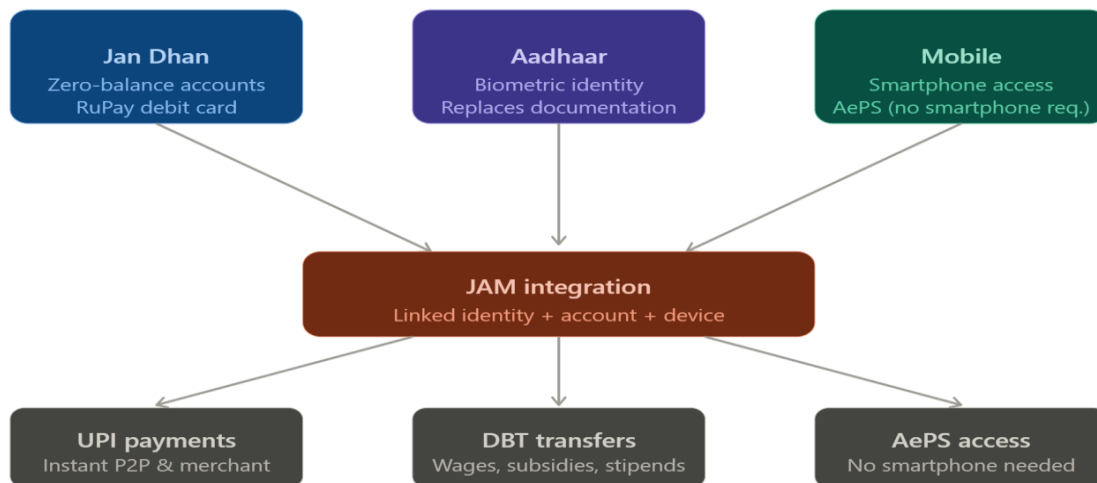


Fig. 1. JAM Trinity architecture and downstream enablers for rural youth [21, 25, 27]

The study by Vasudev [25] confirms that the JAM Trinity has empowered rural households to participate more actively in the formal banking system, while also streamlining government assistance programs and improving access to savings and remittances. Similarly, Ramya and Muthumari [24] report that 38% of rural and semi-urban populations now prefer UPI for their transactions, a preference they attribute to the simplicity of the UPI interface layer built upon the JAM foundation. Collectively, these findings position JAM as more than just a piece of infrastructure; it is a critical enabler of digital payment adoption for rural youth, provided that literacy and trust barriers are addressed through complementary investments in outreach and education.

Discussion

The synthesis of these 27 studies reveals a consistent and concerning pattern: rural youth in India remain systematically underrepresented in digital payment adoption, despite the nation’s overall success in the digital payments sector. The four barrier categories identified—infrastructure, digital literacy, trust and behavior, and economic or regulatory factors—are not independent constraints. Instead, they are deeply interconnected phenomena whose interactions compound their individual effects on adoption among rural youth.

The most consequential interaction exists between digital literacy and trust. Studies consistently show that rural youth who cannot confidently navigate digital payment interfaces are also those most susceptible to fraud and most likely to distrust digital platforms [7, 10]. The finding by Hasan et al. that trust has the strongest influence on mobile payment behavioral intention [6] must be considered alongside Jena’s finding that perceived ease of use significantly influences fintech adoption in rural India [7]. These two constructs interact such that improvements in literacy enable greater ease of use, which in turn reduces perceived insecurity, builds trust, and ultimately drives adoption intent. This literacy-trust-adoption pathway has profound implications for intervention design: efforts to build trust among rural youth without first establishing digital competence are likely to have a limited sustained impact [2, 18].

Infrastructure deficits act as a second-order amplifier for both literacy and trust barriers. When rural youth encounter transaction failures due to network instability—an issue documented in both urban-rural comparative research [19] and rural UPI analysis [26]—they typically attribute the failure to the digital platform itself rather than the underlying connectivity. This misattribution deepens distrust in digital payments, even when the root cause is external to the payment system. The PhonePe-BCG projection, which estimates India's digital payments market will reach US\$10 trillion by 2026 [12], remains contingent on infrastructure investments keeping pace with adoption targets. This condition is far from guaranteed in the remote rural regions where the most marginalized youth reside.

Policy implementation gaps present a further dimension of the discussion. While the JAM Trinity represents a sophisticated and well-designed digital financial architecture [21, 25, 27], and government programs such as PMJDY, DBT, and PMGDISHA have generated meaningful outcomes at scale [9, 24], a persistent gap remains between policy design and ground-level execution. The NABARD survey [9] reveals that despite improvements in financial literacy, digital transaction modes remain underutilized. Similarly, while the RBI Banking Report [13] documents the expansion of Business Correspondents, their service quality and density remain uneven. Although PMGDISHA has reached millions with digital literacy training, research findings suggest that rural youth still exhibit significant skill deficits [1, 19, 26].

This implementation gap may reflect inadequate monitoring, a lack of local adaptation for centrally designed programs, and the absence of sustained behavioral support systems for users following their initial training.

The gender dimension of digital exclusion among rural youth also deserves particular emphasis. Multiple studies document that male rural youth are significantly more likely to adopt digital payments than their female counterparts [5, 15, 27]. Socio-economic analysis [5] confirms a persistent gender gap in digital financial inclusion across SAARC countries, yet Kushwaha and Malpani [15] demonstrate that fintech adoption can reduce this disparity by 23%. Ramya and Muthumari [24] specifically note gender-based disparities in rural UPI adoption and call for more gender-responsive policy designs. Furthermore, GSMA industry data [3] shows that mobile money provides substantial value for women's economic empowerment globally—evidence suggesting that targeted interventions for young rural Indian women could yield transformative inclusion outcomes.

Evidence from emerging markets [22] and digital financial inclusion analyses in developing economies [23] provide important contextual benchmarks, suggesting that the challenges facing India's rural youth are not unique. Instead, they reflect broader patterns common across low- and middle-income contexts. Shared obstacles—such as fragmented regulatory frameworks [22], limited digital infrastructure [23], and persistent literacy deficits [11]—indicate that India can draw valuable lessons from international best practices. These include Kenya's M-Pesa agent network model and China's super-app ecosystem [11]. However, any such adaptations must recognize the unique structural advantages of India's own UPI architecture and the JAM-enabled biometric identity system [21, 25].

Recommendations

Infrastructure Improvements

Improving last-mile internet connectivity is critical if rural youth are expected to adopt digital payments at scale. Right now, access is the bottleneck. Government bodies and telecom operators need to speed up the rollout of BharatNet so that fiber connections at the Gram Panchayat level actually result in affordable and reliable internet for households on the ground. Data from TRAI [16] clearly highlights the gap in rural tele-density, and this should be used to enforce stricter coverage obligations in underserved areas.

At the same time, infrastructure alone is not enough. Expanding the Business Correspondent network [13], along with proper training and performance-based incentives, can provide essential human support for those who struggle to use digital platforms independently. These agents act as a bridge between technology and users. On the demand side, increasing QR code availability in rural markets and local melas is equally important. Wider merchant acceptance creates a real, everyday use case for digital transactions, making adoption more practical and natural for rural youth [12, 26].

Youth-Focused Digital Literacy Initiatives

Digital literacy programs need a serious redesign if they are to work for rural youth. Right now, most of them stop at basic device usage, which is not enough. What actually matters is building confidence in making transactions, recognizing fraud, and understanding consumer rights. Research shows that awareness has a strong correlation with adoption ($r = 0.68$) [10], while digital skills also act as a moderate positive predictor of mobile banking confidence ($r = 0.441$) [1]. That alone justifies investing more effort in this area.

Existing initiatives like PMGDISHA should be strengthened with youth-focused modules that use vernacular languages, peer-based learning, and real-life transaction scenarios relevant to rural contexts [25, 26]. At the same time, digital financial education should start earlier. Integrating fintech concepts into school and college curricula, as suggested by Licy and Scaria [10], can ensure that rural youth enter the workforce with a basic level of digital financial understanding.

Another practical approach is peer ambassador programs. When digitally confident rural youth train others in their community, it creates a ripple effect. This kind of social influence has already been identified as a key factor in adoption by Hasan et al. [6].

Trust-Building Measures

Trust is a major barrier, and it needs to be addressed from both system-level and user-level perspectives. At the system level, institutions like RBI and NPCI must strengthen cybersecurity and, more importantly, simplify grievance redressal. These systems should be multilingual and accessible even offline, since rural users cannot be expected to navigate complex online complaint processes [10].

At the user level, experience plays a huge role. The success of DBT payments [21] shows that repeated exposure builds familiarity and reduces hesitation. When people are required to use digital payments—such as for receiving government transfers—they gradually become comfortable with the system. Expanding DBT to areas relevant to rural youth, like skill development stipends or agricultural subsidies, can create consistent usage and build long-term trust.

Finally, trust is also social. Community demonstrations, along with endorsements from local leaders and institutions, can help overcome the cultural resistance highlighted by Kumar [18] and Anakpo et al. [23].

Regulatory Simplification and Gender-Responsive Policy

Regulatory barriers are still a major hurdle for rural youth trying to access digital payment systems. One of the biggest issues is KYC requirements. For low-value transactions, these need to be simplified. A risk-based KYC approach—where users can access basic digital payment services without excessive documentation—can make a real difference, especially for rural youth who often lack formal income proof [11, 27]. The key is to balance ease of access with reasonable safeguards.

At the same time, gender gaps in adoption cannot be ignored. Multiple studies point to clear disparities in how rural males and females engage with digital payments [5, 15, 24, 27]. This means policy cannot remain neutral—it has to be gender-responsive. That includes targeted digital literacy programs for young women, financial products designed specifically for their needs, and better tracking through sex-disaggregated data to actually measure progress [11, 15].

There's also strong global evidence supporting this approach. The GSMA Mobile Money report [3] shows that gender-focused interventions have significantly improved adoption in several developing countries. There's no reason similar strategies cannot work for rural youth in India, especially for young women who face additional social and structural barriers.

Finally, the regulatory ecosystem itself needs to be more coordinated. Right now, responsibilities are split across telecom regulators, NPCI, and banking authorities, which can lead to fragmentation. Better coordination between these bodies would create a more consistent and user-friendly policy environment, while also ensuring stronger and more uniform consumer protection for rural youth [22, 23].

Conclusion

This Systematic Literature Review draws on 27 studies to build a clear and layered understanding of how rural youth in India engage with digital payments and financial systems. What emerges consistently is not a single barrier, but a combination of challenges that reinforce each other. Limited internet access and device availability restrict entry at the most basic level. Even when access exists, gaps in digital literacy make it difficult for many rural youth to use platforms confidently. On top of that, concerns around fraud, lack of strong consumer protection, and general mistrust of digital systems discourage regular use. Economic and regulatory constraints further increase the difficulty, making digital financial services feel inaccessible—especially for the most vulnerable segments.

Despite these challenges, India's progress in digital payments remains significant. Evidence from industry reports, government data, and academic studies shows how rapidly the ecosystem has expanded in recent years. Initiatives like the JAM Trinity have helped build a strong structural base by linking identities, bank accounts, and mobile access. The rapid rise of UPI transactions has made digital payments faster and more convenient, while schemes like PMJDY have brought millions into the formal banking system. Fintech innovations have also started to close long-standing gaps in financial access, including those related to gender.

However, this progress is uneven. The benefits of digital financial systems have not reached all groups equally. Rural youth—especially young women—continue to lag behind in terms of active usage and meaningful participation. In many cases, they may have access to accounts or platforms, but not the confidence, trust, or support needed to use them regularly. This gap between access and actual usage is where the real challenge lies.

Addressing this divide requires more than just expanding infrastructure. It calls for a more balanced approach that combines access with usability, awareness, and trust. Without this, the system risks remaining inclusive in theory but unequal in practice.

Theoretical frameworks used across the literature—such as the Technology Acceptance Model, Theory of Planned Behavior, and Technology Readiness Index—consistently point to a core set of drivers: attitude, perceived control, trust, and ease of use. These are not abstract concepts; they are practical levers that can be shaped through better policy and program design. The recommendations outlined earlier—covering infrastructure, literacy, trust-building, and regulatory reform—form a connected and evidence-based roadmap to address these challenges.

Looking ahead, several research gaps remain. There is a need for longitudinal studies that track rural youth over time to better understand what drives sustained adoption. More focused research on rural female youth is critical, rather than treating gender as a secondary variable. State-level studies could provide deeper insight into how regional differences in infrastructure, education, and culture affect adoption patterns. Finally, future work should move beyond measuring access to examining real impact—whether digital financial services actually improve economic resilience, savings behavior, and access to credit for rural youth.

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