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Digital Payments: Opportunities and Challenges for Start-ups in Bihar

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Abstract:

India's digital payment landscape has undergone a remarkable transformation, marked by exponential growth in transaction volumes and value, largely driven by the Unified Payments Interface (UPI). This national surge presents a significant opportunity for start-ups across the country, including those in Bihar. Bihar, a state actively fostering its entrepreneurial ecosystem, is emerging as a unique "digital desi" proving ground, where localized innovation and grassroots adoption are shaping its digital future. However, start-ups in Bihar face distinct challenges in fully leveraging digital payments. These include persistent infrastructure gaps (limited high-speed internet, erratic electricity), significant digital literacy and awareness deficits (especially among women and rural populations), pervasive security concerns and a fragile trust environment, and complexities in market access due to cash reliance and low consumer awareness of new digital products. Technical integration hurdles and navigating regulatory complexities further compound these issues. Despite these obstacles, the proactive Bihar Start-up Policy and IT Policy, coupled with national digital initiatives, provide a supportive framework through seed funding, incubation, and a push for digital infrastructure. Overcoming these challenges will require a multi-pronged approach focusing on enhancing last-mile connectivity, boosting targeted digital literacy and cyber security awareness, tailoring digital payment solutions to local needs, streamlining technical support, and simplifying regulatory processes. This report delves into these dynamics, offering a comprehensive analysis of the opportunities and challenges for digital payment-enabled start-ups in Bihar and proposing strategic pathways for sustainable growth.

Keywords: Digital Payments, Bihar Start-ups, Digital Literacy, Infrastructure Gaps, Regulatory Complexities

1. Introduction: The Digital Transformation in India and Bihar

India's digital payment ecosystem has witnessed an extraordinary surge in recent years. The total volume of digital payment transactions, encompassing methods like the Unified Payments Interface (UPI), has consistently grown over the last five financial years. Projections for the financial year 2024-25 indicate a staggering 18,120.82 crore transactions, reflecting a robust and rapidly expanding digital payment infrastructure and user base nationwide. The country's fintech ecosystem has become a benchmark, with over 130 billion digital transactions anticipated by the end of 2025. As of 2024, India boasts over 900 million internet users and more than 500 million smartphone users, underscoring the widespread digital adoption that fuels this growth. This consistent uptrend, including a 34.8% year-on-year surge in



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transaction volumes in FY2024-25, reaching a total value of ₹2,862 lakh crore, signifies a profound and on-going shift towards a digitally-enabled economy.

This national digital payment boom, while indicative of immense market potential, presents a dual reality for start-ups in Bihar. On one hand, the sheer scale and consistent growth of digital payments nationally signify a vast and expanding market, which is inherently beneficial for any digital-first business. This national momentum creates a favorable backdrop for digital payment solutions. However, this national trend also highlights a potential disparity if Bihar's regional adoption and infrastructure development lag behind the national average. Such a gap could place Bihar's start-ups at a competitive disadvantage, requiring them to exert greater localized effort to bridge the digital divide within their operating environment. Furthermore, the high standards of infrastructure and user experience established by national digital payment platforms set a demanding benchmark that Bihari start-ups must strive to meet, which can be challenging if local conditions are not yet on par.

2. Current Digital Payment Landscape in Bihar

The broader Indian digital payment ecosystem provides a crucial context for understanding the opportunities and challenges faced by start-ups in Bihar. While national trends show significant advancement, specific regional nuances, particularly in Bihar, highlight areas requiring focused attention.

Overview of Digital Payment Adoption and Growth Trends in India

India's digital payments ecosystem has experienced robust growth, with transaction volumes surging by 34.8% year-on-year in FY2024-25. The total value of these transactions reached ₹2,862 lakh crore, a substantial increase from ₹2,428.2 lakh crore in the previous fiscal year. Retail digital payments now constitute an overwhelming 99.9% of all non-cash retail transactions, demonstrating a near-complete shift away from traditional methods in the formal retail sector.

The Unified Payments Interface (UPI) continues to be the dominant force in India's digital payment infrastructure. It accounted for over 75% of payment transaction volumes in 2024, processing more than 13 billion transactions monthly. In FY2024-25, UPI contributed 84% of all retail digital transactions by volume, with a 41.7% rise in transaction volume and a 30.3% increase in transaction value. UPI has seamlessly integrated into the daily economic fabric, facilitating everything from government subsidies to payments at local Kirana stores via QR codes.

Despite the impressive digital growth, cash remains a significant component of India's economy. Approximately 60% of India's consumer expenditure is still conducted in cash, particularly prevalent in semi-urban and rural regions. This indicates a hybrid payment model where digital and cash transactions coexist, a critical factor for businesses, especially start-ups, operating in diverse geographical and socio-economic contexts like Bihar.

The substantial growth in internet and smartphone users, coupled with the increasing number of online shoppers from Tier-3 and smaller cities, and the rising adoption of vernacular and voice commerce, collectively present a vast, largely untapped market for digital payment solutions. This dynamic environment is particularly relevant for start-ups in Bihar, as these trends align with the state's demographic and linguistic profile. However, the continued reliance on cash in semi-urban and rural areas necessitates that start-ups adopt a hybrid payment strategy. This means their solutions must either seamlessly integrate both digital and cash options or provide clear, user-friendly pathways for consumers



to transition from cash to digital, ensuring they can cater to the diverse payment preferences across the state.

The rapid expansion of physical acceptance infrastructure for digital payments further supports this transition. The Payments Infrastructure Development Fund (PIDF), specifically aimed at expanding digital payments in less urbanized areas, has significantly boosted the acceptance infrastructure. Point-of-Sale (PoS) terminals increased by 24.7% to 1.1 crore, and UPI QR codes surged by an impressive 91.5% to 65.8 crore. This improvement in physical accessibility reduces a significant barrier for businesses looking to integrate digital payment options. Looking ahead, the Reserve Bank of India (RBI) is also focusing on Artificial Intelligence (AI) governance and developing cloud infrastructure to enhance operational efficiency and cyber resilience. This forward-looking approach signals that future payment systems will be increasingly intelligent and robust. Start-ups that can anticipate these trends and integrate AI-powered solutions for fraud detection or leverage cloud-based infrastructure will gain a competitive advantage and align with evolving regulatory and technological directions. This highlights a growing need for tech-savvy talent and research and development within Bihar's Start-up ecosystem to capitalize on these advancements.

Government and Regulatory Initiatives Promoting Digital Payments

The Indian government, alongside key regulatory bodies like the Reserve Bank of India (RBI) and the National Payments Corporation of India (NPCI), has consistently rolled out initiatives to bolster the digital payment ecosystem and safeguard users. To prevent payment-related frauds, including UPI transaction frauds, measures such as device binding, two-factor authentication (2FA) through PIN, and daily transaction limits have been implemented. These efforts underscore a commitment to building a secure and reliable digital payment environment.

NPCI, the operator of the ubiquitous UPI, is guided by a set of core tenets that prioritize innovation, customer-centricity, and a broader purpose of nation-building. This philosophy, emphasizing impact over profits and embracing a forward-thinking mindset, shapes an inclusive framework for India's payment infrastructure. This foundational approach creates a supportive environment for start-ups, particularly those whose solutions align with financial inclusion and broader public good. Such alignment can lead to more collaborative opportunities and potentially less restrictive regulatory pathways compared to ecosystems driven purely by commercial gain. This suggests that start-ups focusing on addressing the unique challenges of financial inclusion or digital literacy in Bihar could find implicit or explicit support from the national payment infrastructure provider, facilitating their integration journey.

Furthermore, national digital initiatives have laid a robust digital backbone that directly supports rural digital adoption and e-commerce. The BharatNet project, for instance, has extended high-speed internet connectivity to over 2.18 lakh Gram Panchayats across the country. Complementing this infrastructure push, the Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) has certified over 47.8 million rural citizens as digitally literate, empowering them to access information, services, and opportunities previously out of reach. The widespread adoption of government digital services, such as telemedicine (e-Sanjeevani, with 38 crore consultations) and direct benefit transfers (PM-KISAN, reaching over 11 crore farmers), demonstrates the potential for mass digital engagement, even in remote areas. These successful government-led initiatives build a baseline of digital comfort and trust among citizens, which can indirectly facilitate the adoption of digital payments offered by start-ups. If people trust government platforms with their health and finances, they are more likely to trust private digital



payment solutions, provided security and reliability are assured. This fosters a crucial "digital habit" among the population.

The Open Network for Digital Commerce (ONDC), launched in 2022, further democratizes e-commerce by creating an open, inclusive ecosystem for buyers, sellers, and service providers, particularly benefiting Micro, Small, and Medium Enterprises (MSMEs). Similarly, the Government e-Marketplace (GeM) has streamlined procurement for government departments, connecting a vast network of buyers and sellers. For Bihari start-ups, these national initiatives translate into a growing digitally-aware rural customer base and a framework for broader market access, reducing the burden of building digital infrastructure from scratch and enabling them to tap into a wider, digitally-enabled market. This significantly lowers their operational overhead and expands their potential reach, creating a more favourable environment for digital payment adoption.

Financial Year	Volume (in Crore)	Value (in Lakh Crore)
2020-21	4,370.68	1,414.58
2021-22	7,197.68	1,744.01
2022-23	11,393.82	2,086.85
2023-24	16,443.02	2,428.24
2024-25*	18,120.82	2,330.72

Table 1: Digital Payment Transaction Volume and Value in India (FY 2020-21 to 2024-25)

Source: PIB Delhi

This table provides the foundational quantitative evidence for the rapid growth of digital payments in India. It establishes the macro context against which Bihar's specific challenges and opportunities for start-ups must be understood. It demonstrates the scale of the digital transformation and the immense market potential for digital payment solutions. For policymakers and investors, this data is crucial for understanding the market opportunity and the strategic importance of addressing regional challenges in Bihar. Without this macro view, the challenges faced by start-ups in Bihar might appear isolated rather than as part of a larger, dynamic national landscape.

3. Bihar's Start-up Ecosystem: An Overview

Bihar's commitment to fostering a vibrant entrepreneurial environment is evident through its comprehensive policy frameworks and supportive infrastructure. These initiatives aim to transform the state into a hub of innovation, though certain general challenges persist for start-ups. The Bihar Start-up Policy 2022, effective for five years from its notification, represents a strategic endeavor to cultivate a sustainable and inclusive entrepreneurial ecosystem. Its core objective is to transform Bihar into an innovation hub by harnessing local talent and resources, contributing to economic and social development. The policy outlines clear goals, including promoting innovation, establishing a supportive ecosystem with access to funding and mentorship, and enabling hassle-free, time-bound statutory clearances for new ventures. Complementing this, the Bihar IT Policy aims to strengthen digital infrastructure across both urban and rural regions, attract IT investments, promote e-governance, and



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enhance digital literacy across the state. These policies collectively lay the groundwork for a digitally empowered Bihar. A significant initiative, "Start-up Bihar Kraanti," launched at B-HUB (Bihar's flagship innovation center in Patna), is an ambitious statewide program designed to identify, support, and scale 10,000 new ventures across all 38 districts. This program is particularly notable for its focus on grassroots empowerment, actively targeting students, artisans, women-led businesses, farmers, and first-generation founders who are often excluded from mainstream Start-up support. It provides crucial incubation, mentorship, and, importantly, access to digital infrastructure. This initiative's commitment to providing digital infrastructure to 10,000 ventures across all districts directly addresses a critical challenge for digital payment adoption: the lack of foundational digital tools. By pushing digital infrastructure to the grassroots, the government is actively creating a more fertile ground for digital payment integration, not just for the start-ups themselves but also for their potential customer base in underserved areas. The Bihar Start-up Policy's comprehensive nature, offering financial, infrastructure, and regulatory assistance alongside mentorship and incubation, demonstrates a strategic intent to foster innovation within the state. The emphasis on "unique innovation" and specific incentives for women entrepreneurs suggests that start-ups developing novel digital payment solutions or those led by women addressing payment challenges could find significant policy backing. This policy framework provides a regulatory tailwind for fintech start-ups or those integrating advanced payment methods, potentially accelerating their market entry and adoption. Furthermore, the specific incentives for women entrepreneurs are particularly critical. Given the significant digital gender divide in Bihar, supporting women-led start-ups in the digital payment space could be a powerful mechanism to drive broader digital adoption and financial inclusion, as women entrepreneurs might develop more contextually relevant solutions for other women or underserved communities, thereby linking policy directly to overcoming a core demographic challenge.

Bihar has established robust funding mechanisms and a supportive infrastructure to nurture its burgeoning Start-up ecosystem. Seed funding of up to $\gtrless10$ lakh is available as an interest-free loan for ten years under the Bihar Start-up Policy, serving as crucial initial capital. To encourage inclusivity and address historical disparities, women entrepreneurs receive enhanced incentives, including an additional 5% incentive and a $\gtrless3$ lakh grant upon completing a recognized Start-up training program. This financial support, coupled with the requirement for start-ups to be incorporated and have an office in Bihar, strongly encourages localized entrepreneurship. This fosters the development of digital payment solutions that are deeply embedded in the Bihari context, potentially leading to platforms more attuned to local needs and challenges, rather than generic, externally developed solutions.

Further institutional support is provided through the Bihar Start-up Fund Trust (BSFT), which was established with an initial corpus of ₹500 crore to provide venture capital funds for start-ups. The state has demonstrated "impeccable performance" in seed funding support, ranking in the 98th percentile nationally, indicating a strong financial foundation for early-stage ventures. This robust financial foundation is a significant enabler for digital payment start-ups, providing them with the necessary capital to develop and pilot their solutions.

The ecosystem also includes a network of incubation centers, such as those at Bihar Industries Association (BIA), NIFT Patna, IIT Patna, Chandragupt Institute of Management Patna (CIMP), and Birla Institute of Technology (BIT). A dedicated Start-up Support Unit (SSU) acts as a single point of contact for all Start-up-related matters, streamlining processes and providing essential hand-holding. This centralized and streamlined approach, including a "one-stop comprehensive portal" and "hassle-free



and time bound statutory clearances", directly addresses a common challenge for start-ups: regulatory and bureaucratic hurdles. For digital payment start-ups, which often navigate complex financial regulations, this streamlined process can significantly reduce time-to-market and compliance burdens, allowing them to allocate more resources to technology development and customer acquisition.

 Table 2: Key Challenges for Start-ups in Bihar and Solutions Offered by Bihar Start-up

 Ecosystem (General)

Leosystem (General)	
Challenges	Solutions Offered by Bihar Start-up Ecosystem
Lack of Skilled Workforce	Skill Development Programs with ITI and NSDC
Market Entry Barriers	Participation in Government Procurement Programs
Limited Technology Adoption	Industry 4.0 Support via Tech Collaborations
High Initial Capital	Subsidies and Seed Funding up to ₹10 lakh
Licensing Delays	Single-window Clearance System
	Source: NIIR.org

This table summarizes the proactive approach the Bihar government and its ecosystem partners are taking to address common Start-up challenges. While these solutions are general, they provide a foundational framework that can be leveraged by digital payment start-ups to overcome their specific hurdles. For instance, skill development programs can help bridge the digital literacy gap, and single-window clearance can simplify the regulatory landscape for payment-related operations.

4. Key Challenges for Start-ups in Digital Payment Adoption and Integration in Bihar

While the broader digital payment landscape in India is thriving and Bihar's Start-up ecosystem is growing, specific challenges impede the widespread adoption and seamless integration of digital payments by start-ups within the state. These challenges are multifaceted, encompassing infrastructure, human capital, market dynamics, technical complexities, and regulatory environments. One of the most fundamental challenges for digital payment adoption in Bihar is the persistent inadequacy of digital infrastructure, particularly in rural areas. Despite government efforts to strengthen digital infrastructure across urban and rural regions, limited access to high-speed internet remains a significant hurdle. While mobile phone usage among rural youth in Bihar is surprisingly high, even outpacing their urban peers in some aspects, the quality and reliability of internet connectivity can be poor. The gap between policy intent and ground reality is evident here. While the Bihar IT Policy articulates a clear vision for digital transformation and Start-up support, the explicit mention of persistent challenges like "limited access to high-speed internet in rural areas" reveals that even with supportive policies, start-ups face fundamental operational hurdles. This means that even if a Start-up develops an innovative digital payment solution, its efficacy will be severely hampered if the target market, particularly in rural areas, lacks the basic underlying infrastructure to support consistent digital transactions. This highlights the critical need for effective implementation and bridging the last-mile gap in connectivity and power supply, rather than solely relying on policy formulation. A significant barrier to digital payment adoption is the low level of digital literacy across Bihar's population, especially in rural areas and among women. Bihar ranks last among Indian states in terms of women utilizing the internet, with only 20.6% of women in Bihar having ever used the internet (compared to 43.6% of men). In rural areas, this figure drops to a stark 17% for women. Overall, Bihar has one of the fewest internet users per capita (32.45 per 100 people). This



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profound digital exclusion is not just about access but also about the knowledge and confidence to use digital tools effectively. Many individuals, particularly older age groups or those with limited education, are unfamiliar with how digital payment applications work, leading them to prefer cash transactions due to a sense of safety and familiarity.

The underlying reasons for this digital divide are deeply rooted in socio-economic factors such as poverty, educational disparities, and prevailing cultural norms. Poverty significantly limits the ability of individuals, especially girls and women, to access and afford digital tools. A lack of basic reading, writing, and content comprehension skills further hinders individuals from benefiting from digitization. Moreover, societal norms that often view technology use as a male domain restrict women's access to learning and using technology, compounding the gender digital divide. This means that digital payment start-ups face a fundamental challenge in user adoption rooted in systemic issues beyond just technology. They cannot simply offer a payment solution; they must contend with a deeply ingrained socio-economic and cultural context that limits their market.

Metric	Bihar (Oracrell)	Bihar (Decred)	Bihar (Ush ser)	National	National
	(Overall)	(Rural)	(Urban)	Average (Rural)	Average (Urban)
Internet Users per	32.45	-	-	-	-
100 people	(Lowest)				
Women Internet	Lowest	17%	38.4%	-	-
Usage	among states				
Men Internet Usage	-	39.4%	58.4%	-	-
Youth (15-29) Mobile	-	97.8%	96.6%	96.8%	97.6%
Phone Usage					
Youth (15-29)	-	94.1%	93.9%	92.7%	95.7%
Internet Usage					
Teenage Girls	-	-	-	18% (Bihar)	80%+ (Males)
(Smartphone Access)					
Cybercrime	18.3%	16.2%	34.2%	20%	37.5%
Reporting					

Table 3: Digital Divide in Bihar (Internet Usage, Gender, Rural vs. Urban)

Source: The Multidisciplinary Journal, Patna Press

Table 4: Summary of Digital Payment Integration Challenges for Start-ups in Bihar

Category of	Specific Issues for Start-ups in	Impact on Digital Payment Adoption
Challenge	Bihar	
Infrastructure	Limited high-speed internet in rural	Hinders consistent access to and use of
Gaps	areas, poor connectivity, erratic	online payment platforms, leading to
	electricity supply	unreliable transactions and user frustration.
Digital Literacy	Low digital literacy (especially	Limits the addressable user base, requires
& Awareness	rural/women), unfamiliarity with	extensive user education, and slows down
	digital payment apps, resistance in	adoption rates.



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	traditional sectors	
Security	High prevalence of cyber fraud, low	Erodes user confidence, increases
Concerns &	cybercrime reporting, lack of user	perceived risk, and leads to a preference for
Trust	understanding of security features	cash transactions.
Market Access &	Persistent cash reliance in rural/semi-	Requires hybrid payment models, extensive
Behavior	urban areas, limited consumer	marketing efforts to educate consumers,
	awareness of new digital products,	and solutions tailored to local
	need for localized solutions	cultural/linguistic nuances.
Technical	Need for robust, reliable payment	Can lead to poor user experience,
Integration &	gateway integration, potential for	abandonment of digital methods, and
Support	technical glitches, need for accessible	operational difficulties for start-ups with
	local support	limited tech resources.
Regulatory &	Navigating financial regulations, fear	Increases administrative burden, potential
Compliance	of tax liabilities, and bureaucratic	for non-compliance, and discourages
	complexities	formal digital transactions.

Source: Synthesized from

5. Impact of Challenges on Start-up Growth and Innovation

The aforementioned challenges have a profound impact on the growth trajectory and innovative potential of start-ups in Bihar, particularly those aiming to leverage or provide digital payment solutions. The fundamental issues of inadequate infrastructure and low digital literacy directly impede the scalability and market penetration of digital payment-enabled start-ups. Even if a Start-up develops a cutting-edge solution, its reach will be limited if target customers lack reliable internet access or the basic understanding to use it. This restricts the addressable market, making it difficult for start-ups to achieve the critical mass needed for sustainable growth. The "brain drain," where skilled professionals leave Bihar for better opportunities, further exacerbates this, as it becomes challenging for local techdriven start-ups to build and maintain sophisticated digital payment systems or provide adequate technical support. The pervasive security concerns and trust deficit directly affect user adoption and retention. When a significant portion of the population fears cyber fraud or lacks confidence in digital transactions, they are likely to revert to cash, regardless of the convenience offered. This fragile trust environment means start-ups must invest heavily not just in technology but also in continuous user education and robust customer support to build and maintain confidence, adding to their operational costs and complexity. The high incidence of Start-up failures generally (around 90% within five years nationally) is a stark reminder that even with supportive policies, fundamental business acumen is crucial. For digital payment start-ups in Bihar, this means that beyond the specific regional challenges, they must also address universal Start-up pitfalls such as improper planning, lack of market research, and faulty customer segmentation. The imperative for a "strong business model infused with technology" and "aligning activities with customer needs" directly applies to digital payment solutions, emphasizing the need for market-appropriate, tech-driven approaches rather than merely adopting existing payment methods. Despite these hurdles, the Bihar government's massive push for grassroots entrepreneurship, exemplified by initiatives like approving $\gtrless 2$ lakh each to 94 lakh families for entrepreneurship and self-employment, creates an enormous, immediate, and localized market demand for digital payment solutions. Each of these new micro and small enterprises will require efficient



payment mechanisms, presenting a vast opportunity for start-ups that can offer simple, low-cost, and accessible digital payment solutions tailored for first-time entrepreneurs and their customers. This broader entrepreneurial push, while creating new challenges, also cultivates a large potential user base for digital payments, highlighting a significant pathway for growth and innovation for start-ups that can effectively bridge the existing gaps.

Initiative/Policy	Primary Objectives	Key Support/Benefits
Bihar Start-up Policy 2022	Promote entrepreneurship, build inclusive ecosystem, transform Bihar into innovation hub.	Seed funding (₹10 lakh interest-free loan), enhanced incentives for women entrepreneurs, incubation support, mentorship, networking, regulatory assistance (e.g., single-window clearance).
Bihar IT Policy	Strengthendigitalinfrastructure(urban/rural),attract IT investment, promotee-governance, enhance digitalliteracy.	Subsidies on capital investment, internet/electricity bill reimbursement, mentorship/incubation for tech start-ups, preference in government procurement, IT park development.
Start-up Bihar Kraanti	Identify, support, and scale 10,000 new ventures across all 38 districts, democratize entrepreneurship.	Incubation & mentorship, access to digital infrastructure, visibility through national storytelling, district-level outreach, focus on grassroots empowerment (women, farmers, artisans).
Bihar Start-up Fund Trust (BSFT)	Provide venture capital funding for start-ups.	₹500 crore corpus for venture capital, strong performance in seed funding support (98th percentile).
BharatNet Project	Bring high-speed internet to rural areas.	High-speed internet to over 2.18 lakh Gram Panchayats.
PradhanMantriGraminDigitalSakshartaAbhiyan(PMGDISHA)	Make rural citizens digitally literate.	Certified over 47.8 million rural citizens as digitally literate.
OpenNetworkforDigitalCommerce(ONDC)	Democratize e-commerce for MSMEs.	Open, inclusive ecosystem for buyers, sellers, and service providers.

Table 5: Key Government Initiatives Supporting Start-ups and Digital Transformation in Bihar

Source: Synthesized from

This table provides a comprehensive overview of the multi-pronged government efforts at both state and national levels to support start-ups and digital transformation in Bihar. It highlights the various forms of assistance, from financial incentives and infrastructure development to digital literacy programs and market access platforms. This summary is valuable for understanding the existing support ecosystem that start-ups can leverage and for identifying areas where further strategic interventions are needed to maximize the impact on digital payment adoption.



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6. Conclusion: Outlook for Digital Payments and Start-ups in Bihar

Bihar is at a crucial stage in its digital transformation. The rise of digital payments, especially UPI, offers a big opportunity for the state's growing start-up ecosystem. Bihar's "digital desi" approachfocusing on local, vernacular, and grassroots solutions-makes it a key player in shaping India's inclusive digital future. By innovating under limited resources, Bihar could become a model for other emerging markets. However, challenges remain. Poor infrastructure, low digital literacy (especially among women and rural communities), security concerns, and resistance to digital payments slow down progress. The loss of skilled talent to other states also weakens the local tech ecosystem. Despite these hurdles, there is hope. The Bihar government's Start-up Policy and IT Policy, along with national schemes like Bharat-Net and PMGDISHA, support entrepreneurship and digital growth. Financial aid for early-stage start-ups and efforts to boost rural entrepreneurship will increase demand for easy-to-use digital payment solutions. To succeed, Bihar needs a strong, collective effort. This includes better internet and electricity access, practical digital literacy programs for rural users, stronger cyber security, and trust-building measures. Start-ups should create simple, local-language-friendly payment tools that work even with limited resources. Easier regulations and local tech support will also help. By tackling these challenges, Bihar can unlock its digital potential, helping start-ups drive economic growth and financial inclusion across the state.

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