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Research Paper

Transition to a Cashless Economy in Islamabad, Pakistan: Trends, Drivers, and Impacts

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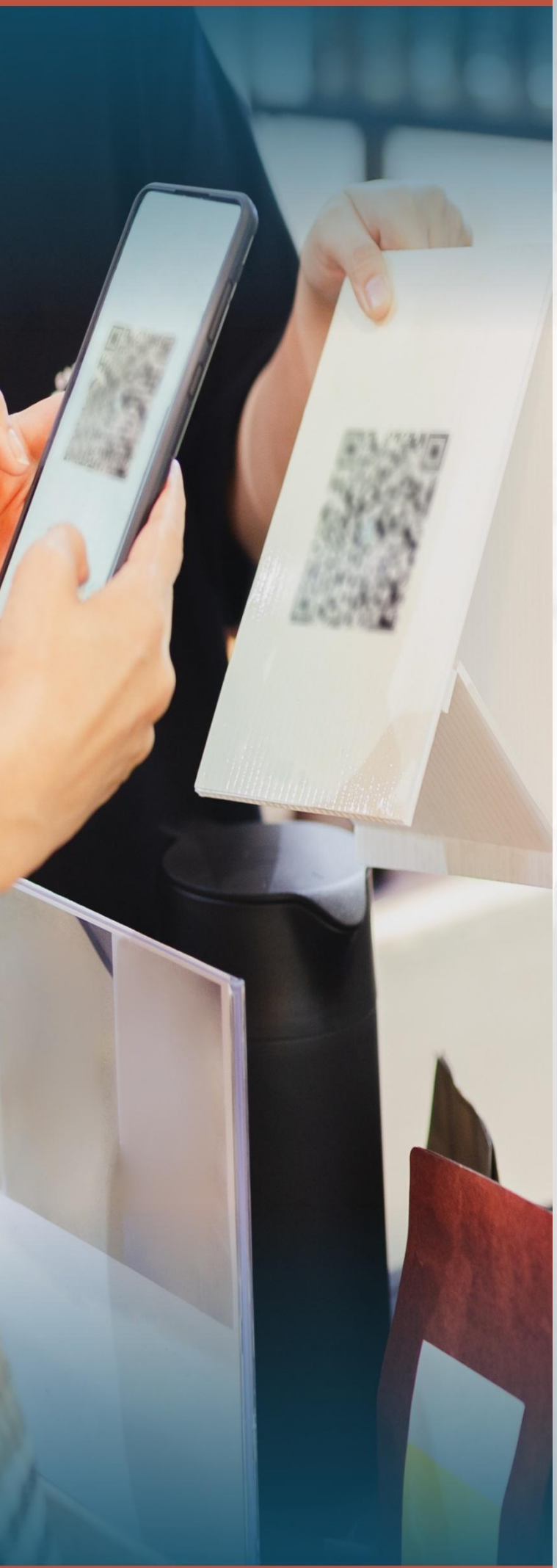

Abstract

This paper examines the rapid transition towards a cashless economy in Islamabad, Pakistan, driven by the expansion of digital financial infrastructure, policy reforms, and widespread adoption of instant payment systems such as Raast. Using national and city-level data, the study documents sharp growth in digital transactions. To estimate future adoption trajectories, this study applies a logistic (S-curve) diffusion model calibrated using empirical anchor points spanning 2023-2030. The model indicates an early inflection during the 2023-2024 period, after which adoption continues to rise at a gradually decelerating rate. Under a reform-intensive policy scenario (with 2025-2026 treated as a policy-driven inflection rather than a data-implied one), the trajectory converges towards a scenario-imposed upper bound of 99 percent digital transaction usage by 2030, while functional saturation emerges earlier as adoption surpasses the 90-92 percent level. The empirical analysis indicates that Islamabad exhibits comparatively high levels of digital payment readiness relative to other regions in Pakistan. At the same time, the results identify persistent adoption frictions, particularly among residual cash-reliant users and transaction types, suggesting that diffusion remains incomplete despite high aggregate penetration. These findings imply that policy interventions aimed at enhancing interoperability, reducing transaction costs, and strengthening user trust are likely to influence the speed and depth of adoption rather than its ultimate saturation level. Overall, the results provide an evidence-based framework for assessing how regulatory and institutional measures can shape the final stages of digital payment diffusion in Islamabad's retail economy.

Keywords: Digital Payments, Raast, Financial Inclusion, Cashless Economy, Pakistan, Islamabad.

INTRODUCTION

Digital payment systems enable electronic transfer of funds between individuals, businesses, and governments using online platforms, mobile wallets, or QR-code interfaces. They promise greater convenience, security and traceability compared to cash. Globally, many economies are promoting cashless transactions to reduce informal cash circulation and boost efficiency. For example, Europe's Single Euro Payments Area (SEPA) standardizes low-cost transfers across borders, while WeChat Pay in China and M-Pesa in Kenya have dramatically broadened retail payment options and financial access. In the United States, mobile P2P apps like Venmo facilitate peer transfers without cash or checks. These innovations typically emerge from developments in mobile and internet infrastructure and aim to address key challenges of cash economies: limited banking access, transaction inefficiencies, and revenue leakage.

Pakistan has embraced this global trend as part of its National Financial Inclusion Strategy (2020), with the State Bank of Pakistan (SBP) aggressively promoting digital financial services. In 2021, SBP launched Raast,[1] Pakistan's first instant retail payment system, enabling real-time low-cost transfers among banks, microfinance institutions, and fintechs.[2] SBP has also deployed interoperable QR-code standards and launched campaigns like "Go Cashless" to educate vendors and consumers. Federal targets align with this push: by mid-2025, the government announced plans to digitize all public sector payments by June 2026.[3] In its September 2025 briefing, the SBP reported that ~88 percent of retail transactions were now digital, reflecting a dramatic shift from cash dominance. Indeed, Raast has seen explosive growth: by mid-2025, it handled over 1.5 billion transactions (roughly PKR 34 trillion) since inception.[4] Branchless wallet networks have similarly expanded. For example,

[1] State Bank of Pakistan. "Raast: Pakistan's Instant Payment System." Digital Financial Services (DFS). Accessed November 25, 2025. https://www.sbp.org.pk/dfs/Raast.html.

[2] Qasim, Muhammad. "Raast and Pakistan's Digital Economy: How Instant Payments Are Reshaping the Nation's Financial Future." Finextra, 12 August 2025. https://www.finextra.com/blogposting/29106/raast-and-pakistans-digital-economy-how-instant-payments-are-reshaping-the-nations-financial-futu.

[3] Khan, Mubarak Zeb. "All Govt Payments to Be Digitised by June 2026." Dawn, September 19, 2025. https://www.dawn.com/news/1943042.

[4] Qasim, "Raast and Pakistan's Digital Economy."

JazzCash and Easypaisa now serve millions of users and process trillions of rupees annually.[5]

Pakistan's digital finance reports indicate rapid volume growth, partly due to SBP-led initiatives. For instance, media analyses of SBP payment system reviews document year-on-year jumps in Raast transactions and mobile-banking use.[6] Industry publications highlight JazzCash and Easypaisa's scale: as of 2024, JazzCash had ~48 million registered users and processed PKR 10.7 trillion in a year, while Easypaisa processed 2.7 billion transactions.[7] Central bank sources note that branchless wallet accounts are the main engine behind widening inclusion: by FY2023-24, Pakistan had 226 million bank or mobile accounts and nearly 46 million Raast IDs. These platforms are credited with reaching unbanked populations, especially in remote areas. Moreover, macro studies link higher digital-transaction rates with improved savings and tax compliance.[8]

At the city level, there is scant published research on Islamabad's initiatives. News reports cover CDA's Raast QR rollout and mention Islamabad's high digital readiness,[9] but rigorous evaluation is lacking. One recent field study (IPA/LUMS) surveyed merchants in Lahore, Rawalpindi, and Islamabad, confirming that cash still dominates: about 75 percent of retail payments were in cash, only 5 percent via QR code. The same study found that while digital solutions are valued by both customers and merchants, mutual expectations impede uptake. Importantly, it demonstrated that temporary financial incentives raised merchant QR usage by ~10–11 percentage points, though this effect waned once incentives ended.[10]

Islamabad, Pakistan's capital territory, has been singled out as a pilot for cashless initiatives. It is the nation's most service-oriented and high-income region, with almost universal 3G/4G coverage and very high digital-development indices. Local authorities have pursued a vision of Islamabad as a "model digitized city powered by Raast". For instance, the Capital Development Authority (CDA) has rolled out the unified Raast QR code across markets and malls and even planned smart "M-Tag" parking in favor of mobile payment.[11] These efforts aim to showcase cashless convenience and bring more commerce onto digital rails. However, cash is not being forcibly eliminated: recent stories that Pakistan would outlaw banknotes were firmly denied by SBP and media reports. Cash remains legal tender, and many small traders and households still rely on physical currency. An SBP official remarked that the cashless drive is about offering alternatives, not banning cash.

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[5] Durrani, Zahra. "The Rise of Digital Banking in Pakistan: Can Fintech Replace Traditional Banks?" Digital Pakistan, August 24, 2025. https://digitalpakistan.pk/the-rise-of-digital-banking-in-pakistan-can-fintech-replace-traditional-banks/

[6] Siddiqui, Salman. "Raast Payments Hit Rs1tr in 16 Days." The Express Tribune, October 20, 2024. https://tribune.com.pk/story/2504018/raast-payments-hit-rs1tr-in-16-days .

[7] Durrani. "The Rise of Digital Banking in Pakistan: Can Fintech Replace Traditional Banks?"

[8] Siddiqui, Salman. "Raast Payments Hit Rs1tr in 16 Days."

[9] "Raast QR Code System to Drive Islamabad's Cashless Economy Transition." Associated Press of Pakistan, September 11 2025. https://www.app.com.pk/national/raast-qr-code-system-to-drive-islamabads-cashless-economy-transition/.

[10] Razi, Hussam; Said, Farah; and Naushahi, Ayleen. "Encouraging Digital Merchant Payments through QR Codes: Results from a Rigorous Evaluation in Pakistan." Innovations for Poverty Action, July 31, 2025. https://www.poverty-action.org/encouraging-digital-merchant-payments-through-qr-codes-results-rigorous-evaluation-pakistan.

[11] "Raast QR Code System to Drive Islamabad's Cashless Economy Transition." Associated Press of Pakistan.

Table 1: Cashless Economy Statistics–Pakistan (Applicable to Islamabad)

Category	Statistic / Value	Details	Source
Digital Share of Retail Payments	76% (FY23) → 84% (FY24) → ~88% (Latest)	Share of total retail payments conducted digitally	SBP (2024)[12]
Total Retail Digital Transactions	9.1 billion; PKR 612 trillion	+38% growth in number of transactions	SBP (2024)[13]
Mobile Banking Users	+16% YoY growth	Driven by smartphone penetration	SBP (2023)[14]
Internet Banking Users	+25% YoY growth	Reflects growth in broadband availability	SBP (2023)[15]
E-Wallet (EMI) Users	+85% YoY growth	Fastest growing payment channel	SBP (2023)[16]
Retail Payments by Value (Channel Split)	70% branch, 16% mobile, 6% internet, 3% ATM, 0.5% merchant	Indicates value concentration in large cash-based transactions	SBP (2023)[17]
Raast Instant Payments	147M (FY23) → 496M (FY24)	Increased from 3.1% to 7.8% of digital payments	SBP (2024)[18]
POS-Enabled Merchants	115,177 merchants	Out of approx. 5 million MSMEs	SBP (2023)[19]
POS Terminals	151,646 terminals	Supported 89M transactions worth PKR 510B	SBP (2023)[20]
E-Commerce Payments (By Number)	92% wallets; 8% cards	Wallets dominate online transaction volume	SBP (2023)[21]
E-Commerce Payments (By Value)	67% wallets; 33% cards	Wallets used for higher value purchases	SBP (2023)[22]
Broadband Subscribers	138–142 million	PTA nationwide broadband data	PTA (2024)[23]
Cellular Mobile Coverage	~91% population	Enabler of mobile banking and wallets	PTA (2024)[24]
Cash Usage in Pakistan	~30% of all transactions	Higher reliance on cash vs global average (20%)	WB (2023)[25]
Mobile Money Access (Gender Gap)	35% men vs 7% women	Significant gender digital divide	WB (2023)[26]
Islamabad-Specific Insight	No city-level data available	Islamabad likely above national average due to higher literacy and connectivity	PBS (2023)[27]

[12] State Bank of Pakistan. (2024). Payment Systems Review 2023–24. https://www.sbp.org.pk.
[13] State Bank of Pakistan. (2024). Annual Payment Systems Review. https://www.sbp.org.pk.
[14] State Bank of Pakistan. (2023). Mobile & Internet Banking Statistics. https://www.sbp.org.pk.
[15] State Bank of Pakistan. (2023). Payment System Review. https://www.sbp.org.pk.
[16] State Bank of Pakistan. (2023). EMI Quarterly Review. https://www.sbp.org.pk.
[17] State Bank of Pakistan. (2023). Retail Payments Overview. https://www.sbp.org.pk.
[18] State Bank of Pakistan. (2024). Raast Progress Report. https://www.sbp.org.pk.
[19] State Bank of Pakistan. (2023). Payment System Review. https://www.sbp.org.pk.
[20] State Bank of Pakistan. (2023). Payment System Statistics. https://www.sbp.org.pk.
[21] State Bank of Pakistan. (2023). E-Commerce & Digital Payments Report. https://www.sbp.org.pk.
[22] State Bank of Pakistan. (2023). Payment Systems Review. https://www.sbp.org.pk.
[23] Pakistan Telecommunication Authority. (2024). Telecom Indicators. https://www.pta.gov.pk.
[24] PTA. (2024). Annual Telecom Report. https://www.pta.gov.pk.
[25] World Bank. (2023). Global Findex Database. https://www.worldbank.org.
[26] World Bank. (2023). Global Findex Database.
[27] Pakistan Bureau of Statistics. (2023). ICT Indicators. https://www.pbs.gov.pk.

The retail payment environment in Pakistan is fast becoming digital, with digital payment ratio increasing to 84 percent in FY24 with an even larger 88 percent most recently indicating a strong trend towards the use of digital channels. Total retail e-retailing transactions increased to 9.1 billion worth PKR 612 trillion with 38 percent increment in volume. Mobile and internet banking are steadily rising and the number of mobile and internet banking users is increasing by 16 and 25 percent each year with enhanced smartphone penetration and the extended availability of broadband.

E-wallets are the fastest growing segment, and it registered 85 percent annual growth, showing its increasing popularity in everyday payments and e-commerce. Although there are these gains, retail payments are still extremely concentrated in traditional channels with 16 and 6 percent respectively being contributed by mobile and internet banking, respectively. In online trading, wallets are leading in terms of the number and value of transactions done with 92 and 67 percent respectively than cards. In the meantime, Raast, has an impressive take-up, with a steady rise out of 147 million in FY23 to 1276 million in FY25.[28]

In Pakistan, the digital ecosystem is sustained by the 138-142 million broadband subscribers and 91 percent mobile coverage, but there are still issues. Cash continues to make up approximately 30 percent of all transactions and a huge gender gap exists in accessing mobile money as 35 percent of men have access to mobile money compared to only 7 percent of women. There is also lack of POS infrastructure with only 115,177 POS enabled merchants of an estimated 5 million MSMEs with 151, 646 terminals that transacted 89 million transactions worth PKR 510 billion.

[28] State Bank of Pakistan. (2025). Annual Payment Systems Review FY 2024-25. https://www.sbp.org.pk/PS/PDF/Annual-Payment-Systems-Review-FY25.pdf.

Pakistan registered 371 million instant payments worth PKR 8.5 trillion in Q3 FY25, indicating effective nationwide use of real-time digital transfers.

Table 2: Digital Connectivity Indicators

Indicators	Value	Source
Cellular Population Coverage	91%+ (FY2023–24)	PTA
Broadband Subscriptions	~142 million (Sept 2024)	PTA
Relevance	High connectivity enabling digital payments growth	PTA

The two biggest mobile wallet providers (JazzCash and EasyPaisa) still dominate the digital payments environment in the country. According to the official press statement of JazzCash, the company had gross transaction value of PKR 10.7 trillion over a period of twelve months with 20.6 million monthly active users as of March 2025. According to Business Recorder and included in the rating evaluation provided by PACRA, EasyPaisa completed 2.7-2.8 billion transactions in 2024 at a value of approximately PKR 9.5 trillion, which is approximately 9 percent of the GDP of Pakistan. This scale has been supported by other industry studies which point out that JazzCash is also transacting close to 9-10 percent of national GDP on an annual basis which points to the centrality of mobile wallets in Pakistan's financial system.

Table 3: Major Wallet Providers (Scale)

Provider	Metric	Value	Source
JazzCash	Gross transaction value (LTM as of Mar 2025)	PKR 10.7 trillion	Company press release (jazz.com.pk)
	Monthly active users	20.6 million	JazzCash
Easypaisa	Annual transactions (2024)	2.7–2.8 billion	Business Recorder, PACRA
	Annual value (2024)	~PKR 9.5 trillion (~9% of GDP)	Business Recorder, PACRA
Industry Context	TM Forum Industry Coverage (Wallet volumes)	9–10% of GDP	

DATA AND METHODOLOGY

The paper uses a logistic growth modelling framework to approximate the growth of digital retail payment adoption in Pakistan's Federal Capital, Islamabad, between 2023 and 2030 in a reform-intensive policy scenario using the work of E.M. Rogers (2003) and World Bank Digital Economy Reports.[29] The dependent variable is determined as the percentage of the retail transactions completed via digital channels. It has been empirically demonstrated that in 2023-2024, digital transactions in retail activity amounted to about 76 percent. Consistent with the projections of the SBP and federal and municipal digitisation targets; it is assumed

[29] World Bank Digital Economy Reports - BIS: "Digital payments and economic growth" - SBP Raast adoption data. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099030524162525956.

that the upper-bound saturation level will be 99 percent by 2030 (See Annex I). These values define the first and the last conditions that govern the model.

The logistic growth specification is used to represent the diffusion process as an effective specification of technological innovation and payment systems adoption. The functional form is as follows:

$$\mathbf{f(t) = \frac{L}{1 + e^{-k(t-t_0)}}}$$

in which L is the saturation level, k is the intrinsic growth rate, t is time in years and t_0 is the inflection point when the rate of adoption is the maximum. The saturation parameter is fixed at L=99 to represent an assumed scenario ceiling under an intensive reform pathway. In practice, functional saturation is expected to emerge earlier once adoption exceeds the 90–92 percent range. The digital payment adoption is logistic in this context since the adoption of digital payment usually increases rapidly after regulatory reforms, expansion of infrastructures, and changes in the user behaviour before levelling off as the system nears maturity.

Combination of observed data and forward-looking policy estimates are used to perform parameter calibration. This study uses 3 anchor points for the empirical data: Parameter calibration combines (i) an observed baseline and (ii) scenario-based constraints, anchors the curve at 2023-2024 (76 percent), treated as the observed baseline, and uses 2025-2026 (~88 percent) as a near-term calibration target consistent with SBP-reported retail digitisation levels and stated policy momentum. The 2030 value (99 percent) is not an observed datapoint; it is upper bound imposed (scenario-based) as the saturation ceiling (L = 99 percent) under the reform-intensive scenario. The curvefit algorithm of the SciPy optimisation package is used to estimate the logistic growth parameters nonlinearly, while fixing the upper asymptote at 99 percent to represent the assumed saturation ceiling under the reform-intensive scenario The implied logistic growth rate ($k \approx 0.75$) corresponds to a rapid diffusion path. While such a value is plausible given recent acceleration in digital payments adoption, parameter identification is necessarily weak because calibration relies on one observed baseline point, one near-term benchmark, and one imposed saturation constraint. Accordingly, the resulting trajectory should be interpreted as a scenario-consistent diffusion path, not as a statistically estimated forecast.

Model validation is performed through comparative evaluation between the model against international analogues and well-known theoretical constructs. A close empirical comparator is the adoption curve of the Unified Payments Interface (UPI) of India that also shows high-adoption levels. The literature on innovation diffusion also contributes additional support, as well as analysis of digital economies that are published by the World Bank, the Bank of International Settlement (BIS), and other entities. The logistic or near-logistic patterns of diffusion in digital financial services are consistently reported by these sources, which gives plausibility to the modelling strategy used in this paper.

This gives a theoretically sound and empirically based projection of the digital payment adoption curve of Islamabad. It shows that the marginal gains inherently decline beyond the 90-92 percent level of adoption, and that policy changes can shift or accelerate the effective inflection point, thus speeding the process of convergence to the saturation level. This modelling framework is thus an effective analytic platform that can be used to evaluate how digital retail payments are likely to develop in the face of proactive policy underpinning and dynamic ecosystem relationships.

RESULTS AND ANALYSIS

S-Curve Projection of Islamabad's Digital Adoption (2023–2030)

Adoption of a cashless economy in Islamabad will take a traditional S-curve pattern. The model of the proportion of retail transactions made digitally is based on the premise that in 2023, approximately 76 percent of transactions were made digitally, and by 2030, these will have risen to 90-92 percent (as per SBP direction). This growth behavior of logistics is manifested in the actual saturation effects: the uptake is initially slow, but it rapidly increases to a critical mass, and beyond that, it is no longer rapid. By 2023, some three-quarters of retail payments in Islamabad had become digital, with a high level of early technology adoption having created a specific interested demographic. By the middle of 2025, at least 88 percent of transactions had become digital. With a high reform agenda, this model foresees a near-universal digital use in the year 2030, effectively flooding the market.

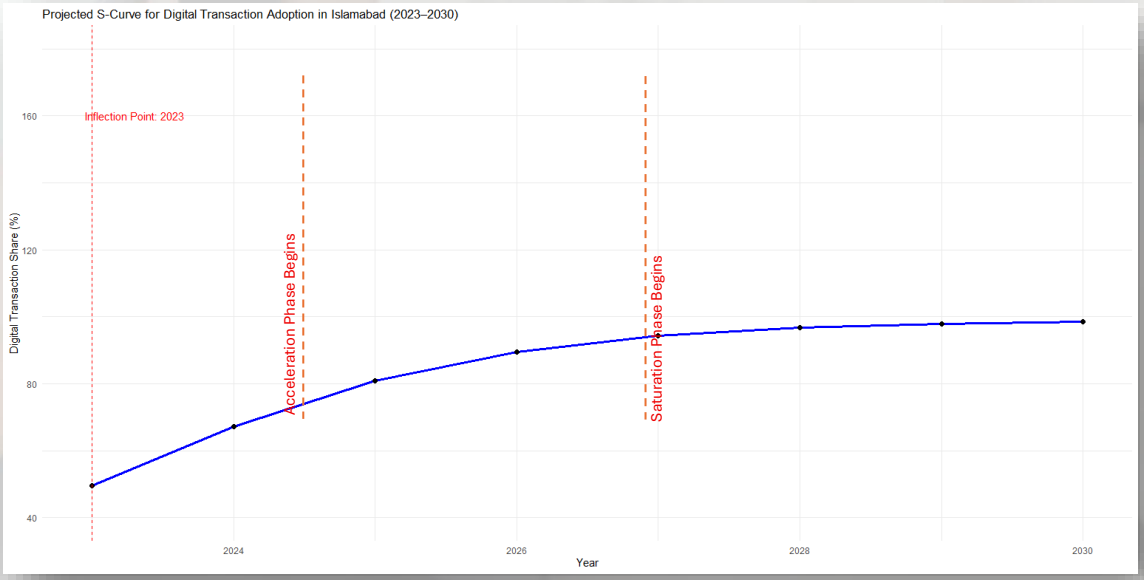

Figure 1: Projected Digital Transaction Adoption in Islamabad

Note: The approximate points of inflections where the rate of adoption changes between phases are denoted by the dashed lines. Inflection points 2023-2024 and saturation points 2028-2023 (illustrative phase markers).

The curve follows a classic S-shape. Growth is modest in the early phase (2023-2024), reflecting the presence of remaining cash users who require additional trust, infrastructure, or incentives to transition. Adoption accelerates in 2023-2025, when digital payments become mainstream and uptake broadens rapidly. This inflection point reflects the combined effects of policy support, network effects, and widespread merchant acceptance. After 2026, growth continues but at a diminishing rate as saturation is approached. By 2028-2030, adoption levels off near 90-92 percent, indicating near-universal use, where cashless transactions are self-reinforcing and further gains are incremental rather than transformative.

The curve begins to flatten towards the end of the 2028-2030 period, reflecting a stage in which digital payments account for the majority of retail transactions and the pace of adoption slows markedly. At this point, the remaining gap is likely to consist largely of the most difficult-to-convert users and transaction types, including segments that continue to rely on cash due to entrenched habits, access constraints, or cultural preferences. This group

may include a subset of small informal traders and older users with a strong preference for cash, implying that the final increments of adoption occur more gradually. Nonetheless, the trajectory indicates that the retail payments system is moving predominantly towards a cash-light or cash-minimised equilibrium. The logistic S-curve captures this dynamic: gains in digital inclusion are modest at the outset, rapid during the middle years, and increasingly incremental as the system approaches its natural saturation limit.

Trends in Digital Transactions

Pakistan is on an accelerated trajectory towards a digital payments-oriented retail economy, supported by the rapid expansion of the Raast instant payment system and widespread adoption of mobile wallet platforms such as JazzCash and Easypaisa (Table 4). At the global level, the share of retail transactions conducted through electronic channels has risen sharply in recent years, with digital payments now accounting for an estimated 84-88 percent of total transaction volumes in many advanced and emerging economies.

Within this national context, Pakistan's Federal Capital, Islamabad exhibits comparatively advanced conditions for digital adoption, including higher average income levels, elevated literacy rates, near-universal digital connectivity, and relatively strong financial inclusion indicators. These structural advantages suggest that the population of Islamabad is particularly well positioned to adopt and deepen the use of digital financial services, with adoption levels likely to exceed national averages.

Table 4: Trends in Digital Transactions

Category	Statistic / Value	Details / Interpretation	Source
National Digital Payments Growth	Raast cumulative: ~1.5 billion transactions, PKR 34 trillion (mid-2025)	Rapid national adoption of instant payments since launch.	Qasim (2025)[30]
	Raast annual: 892 million transactions, PKR 20 trillion (late 2024)	Indicates exponential year-on-year scaling.	Qasim (2025)
	Recent quarter: ~795 million transactions, PKR 6.4 trillion	Quarter-level surge in real-time payments.	Qasim (2025)
	Retail digital share: 84–88% of retail payments by volume	Up from ~76% a year earlier.	Qasim (2025)
Mobile Wallets & Interbank E-Payments	JazzCash: PKR 10.7 trillion (twelve months to March 2025), 20.6 M monthly active users	Highlights one of Pakistan's largest fintech payment networks.	Jazz (2025)[31]
	Easypaisa: ~2.7 billion transactions, PKR ~9.5 trillion (2024) ~9% of GDP	Signals significant scale for mobile-wallet/banking services.	Business Recorder (2025)[32]
	Total digital retail transactions: ~4.7 billion → ~6.4 billion (2023→2024)	~35% YoY growth in digital retail transaction volume.	Digital Pakistan (2025)[33]
Islamabad: Connectivity & Digital Readiness	Islamabad is the only district with "very high" digital development.	Indicates exceptionally strong digital infrastructure in ICT.	UNDP (2024)[34]

By mid-2025, SBP claimed that cumulative Raast transactions had reached over 1.5 billion since its inception. Digital transactions increased more than 30 percent in FY2023-24, in terms of annual growth. As an example, Raast alone handled approximately 892 million transactions by the end of 2024 and in one quarter almost 795 million transactions were processed. SBP estimates that about 84-88 percent of retail payments are now digital, an increase of about 76 percent a year ago nationwide.

The larger portion of this volume is made up of mobile wallets and interbank e-payments. The network of JazzCash (48M users, 120k cash agents) handled PKR 10.7 trillion of transactions in 2024 alone. Easypaisa that has been elevated to a Digital Retail Bank status had total transactions of approximately USD 2.7 billion (PKR 9.5 trillion) in 2024. These books matter: Easypaisa with PKR 9.5 trillion is approximated to be 9 percent of the GDP of Pakistan.

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[30] Qasim. "Raast and Pakistan's Digital Economy."

[31] Jazz (2025, May 15). Jazz reports 20.3% revenue growth in Q1 2025. https://jazz.com.pk/media-center/detail/jazz-reports-20-revenue-growth-in-q1-2025-invests-pkr-9.5-billion-to-expand-digital-ecosystem.

[32] Business Recorder (2025, January 29). 'Easypaisa' announces commercial operations. https://www.brecorder.com/news/40345142.

[33] Digital Pakistan. (2025, August 24). The rise of digital banking in Pakistan: Can fintech replace traditional banks? https://digitalpakistan.pk/the-rise-of-digital-banking-in-pakistan-can-fintech-replace-traditional-banks/.

[34] United Nations Development Programme (2024, April 24). UNDP's pioneering Digital Development Index for Pakistan finds that districts performing better on digital transformation are also performing better on human development. https://www.undp.org/pakistan/press-releases/undps-pioneering-digital-development-index-pakistan-finds-districts-performing-better-digital-transformation-are-also.

There was also a boom in the activity of branchless banking (mobile wallets, IBS/IBFT transfers), as SBP reported that the number of transactions carried out in branchless-wallets amounted to billions of transactions annually. To put this into perspective, one market report approximated that the amount of digital retail transactions in Pakistan increased by a factor of 35 between 2023 to 2024 (equivalent to the growth of 4.7 and 6.4 billion transactions respectively). These values are in line with the growth in Raast and wallet channels witnessed.

Islamabad's Demographics and Connectivity

The social and economic profile of Islamabad is very receptive towards digital uptake. In 2023, the population of Capital Territory of Islamabad was approximately 2.56 million people. It has a rather advanced demographic composition: almost half of its population are adults (15-64 years) and adult literacy rate is more than 80 percent (PBS census data, 2023).[35] Islamabad has one of the highest per-capita income levels in Pakistan, reflecting its role as the national capital and a major center for government administration, services, and technology-oriented activities. The city is also highly urbanised: recent population estimates indicate approximately 1.11 million residents in urban areas compared with around 1.25 million in rural or peri-urban zones, suggesting broad access to physical and digital infrastructure across much of the population.

In addition, Islamabad hosts major technology parks as well as regional offices and branches of national banks and telecommunications providers. The concentration of these institutions further enhances the availability and accessibility of formal financial and digital services. The data of PTA shows that by the end of 2024, more than 91 percent of the population in Pakistan had cellular access. In fact, the report produced by the UNDP Digital Development Index,[36] ranks Islamabad as the only district in Pakistan that has very high digital development. As an illustration, its residents have a higher internet speed and have more devices on average than most of the country. There is an overall increase in broadband subscriptions in the country, taking the number of subscribers up to 150 million (2025) compared to 128 million (mid-2023), and Islamabad is not behind, with almost all households accessing the internet to some extent. These connectivity statistics indicate that Islamabad users are less prone to technical barriers to digital finance than the rest of the country.

Financial Inclusion and Access

Inclusion has been supported by the rapid growth of payment accounts in recent years. According to SBP projections, the country had approximately 226 million mobile-wallet or active deposit accounts in 2024.The increase in accounts is also a result of outreach by banks, as well as fintechs, e.g., SBP reported 18,450 bank/microfinance branches by FY2024, which was 17,751 the previous year, and growth in Automated Teller Machines and point-of-sale terminals (although the latter are comparatively small). Banking penetration is already relatively high in Islamabad: branch density and ATM coverage in ICT is higher than in the country. Islamabad is also becoming more financially literate and SBP Go Cashless drives and fintech expos are frequent.

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[35] Pakistan Bureau of Statistics. (2025). "7th Population and Housing Census 2023: National Census Report. Government of Pakistan." https://www.pbs.gov.pk/wp-content/uploads/2020/07/National-Census-Report-2023.pdf.

[36] United Nations Development Program. (2025). "UNDP's pioneering Digital Development Index for Pakistan finds that districts performing better on digital transformation are also performing better on human development." April 23, 2024. https://www.undp.org/pakistan/press-releases/undps-pioneering-digital-development-index-pakistan-finds-districts-performing-better-digital-transformation-are-also.

The addition of connectivity and inclusion regions to higher income, education, and internet usage are likely to increase more in digital payments. Although we do not have time series city-level data, the high degree of overlap can be demonstrated by the fact that the wealthiest quintile of the population was found to have 15x more scores on digital development than the lowest, meaning that wealth is a huge marker of digital development.[37] In addition, the per capita digital indicator in Islamabad is higher than most of the provinces: the branchless-account penetration and Raast ID registrations are also one of the highest in the country.

It is estimated that approximately 1.3 million Raast IDs have been issued within the Islamabad Capital Territory (ICT), a penetration level substantially higher than the national average of around 21 percent. This level of uptake indicates that a large share of formal-sector workers and consumers in Islamabad can be effectively reached through digital payment channels.

Policy Targets and Adoption Shares

The government has an ambitious objective of fully converting all federal, provincial, local government, and state-owned enterprise (SOE) payments to be digital by June 2026 as reported in a parliamentary briefing in September 2025.

Table 5: Policy Area and Targets

Policy Area	Target / Status	Source
Government Payment Digitisation	All federal, provincial, local govt & SOE payments digital by June 2026	Dawn (2025)[38]
Retail Payment Digitisation	High-80s% of retail transaction volume is digital	SBP Q3 FY25[39] Review

Note: Digital dominance is by volume, not value.

This national push is in line with trends mentioned in the Q3 FY25 review of the SBP which indicates that the largest part of retail payments is represented by digital channels now, with volumes falling within the high-80 percent range with respect to the cut of monthly reporting. Combined, these changes indicate a powerful policy trend and broad user interest in a more efficient, transparent and technology-driven payment system.

POLICY RECOMMENDATIONS

Based on this study's results and the literature, the following practical suggestions ought to be adopted by relevant stakeholders who want to transform Islamabad into a cashless economy:

- Raast QR codes should be displayed on the walls of all commercial shops and markets in Islamabad and aided by quick on-site onboarding. The government can enhance adoption by providing cashbacks over three months, zero merchant costs, and minor prizes based on early and regular use of the digital format.

[37] United Nations Development Program. "UNDP's pioneering Digital Development Index for Pakistan finds that districts performing better on digital transformation are also performing better on human development."

[38] Dawn. (September 19, 2025). All govt payments to be digitised by June 2026. https://www.dawn.com/news/1943042.

[39] SBP. (Q3 2025). Payment Systems Quarterly Review. https://www.sbp.org.pk/psd/pdf/PS-Review-Q3FY25.pdf.

- An awareness campaign in Urdu and English should be conducted so that users can be educated about Raast security, instant reversals, and fraud protection. Banks should be able to give immediate alerts about frauds, as well as, have a 24/7 dispute-resolution team that ensures that any problem is addressed within 48 hours.
- BISP centers and women universities should start female-oriented digital finance programs. Practical assistance to the elderly and low-literacy citizens should be provided in form of weekend digital assistance booths in parks and markets.
- All banks and fintechs ought to switch to the common standard of Raast QR and implement subsidized micro-POS terminals to small vendors. Agent banking networks should continue to increase aggressively in the low-income and peripheral regions of Islamabad to enable digital cash-in/cash-out requirements.
- All public payments by the Capital Development Authority and federal departments should be made payable using Raast and mobile wallets. Such transformation will push digital adoption on a scale as well as enhance transparency and minimize leakages.
- The metro bus system at Islamabad ought to implement the QR-based payment at entry gates where a small percentage discount may be given to digital users. This will motivate digital behavior among daily commuters and establish a visible citywide movement towards cashless attitudes.
- A monthly digital payments dashboard at the city level should be released, which presents transactions, merchant adoption, and Raast usage.
- Behavioral change should be monitored through an annual survey of merchants and consumers to revise the policies, incentives, and outreach programs.

CONCLUSION

The results of this study suggest that Islamabad is on a trajectory towards very high levels of digital payment adoption relative to other regions in Pakistan. This trajectory reflects both national-level structural drivers, such as expanding digital payment infrastructure and regulatory support, and city-specific enabling conditions. In particular, higher literacy rates, elevated per-capita incomes, near-universal broadband and mobile connectivity, and a dense network of formal financial institutions reduce adoption frictions and strengthen network effects in the local payments ecosystem. These structural characteristics are consistent with the dynamics captured by the logistic growth model estimated in this paper, which indicates rapid acceleration rapid acceleration in adoption at the beginning of the projection period followed by gradual convergence towards saturation. Under a continuation of current reforms and incentive structures, the model projects that digital transactions in Islamabad could approach a scenario-imposed upper bound near 99 percent by 2030, while practical saturation is likely to occur earlier as adoption exceeds the 90-92 percent level.

Nevertheless, this transition is unlikely to occur automatically. Even under conditions of rapid expansion, certain segments of the population are expected to continue relying on cash due to habitual behavior, perceived security or privacy risks, and limited familiarity with digital payment technologies. Mobile money access differences between the genders also exist, and it cannot be ignored that inclusive design and target outreach is necessary. Merchant incentives, interoperability efforts and public financial literacy initiatives are thus still very important in making digital transformation fair and sustainable. Strengthening city-level data collection, providing targeted support for the adoption of secure and user-friendly digital payment solutions, and expanding the integration of Raast across all government payment channels would further accelerate digital payment adoption.

PROPOSED ACTION MATRIX

Action Area	Pathways to Solution	How to Implement Each Solution	Actor Responsible	Timeline
Merchant Digitisation	Require all shops to use Raast QR and encourage early adoption	Conduct market-wise onboarding, offer 3-month cashbacks, waive merchant fees, run prize-based incentives	SBP, CDA, Banks, JazzCash, Easypaisa	12 months
Consumer Trust & Security Campaigns	Build public confidence in digital payments	Launch Urdu/English awareness campaigns, set up 24/7 dispute-resolution desk, send real-time fraud alerts	SBP, PTA, CDA, Banks	12-18 Months Ongoing
Inclusion Programs	Reduce digital divides and train underserved groups	Provide women-focused digital training via BISP, deploy female ambassadors, set up weekend support booths	BISP, SBP, CDA, Ministry of IT	12-18 Months, ongoing
Interoperability & Infrastructure Expansion	Standardize payments and increase acceptance points	Enforce unified Raast QR, subsidize micro-POS devices, expand agent banking every 400 meters	SBP, Banks, Fintechs	18-24 Months
Digitisation of All Public Payments	Move government payments fully to digital channels	Enable Raast payments for CDA taxes, utilities, parking, challans; train staff and integrate systems	CDA, Ministry of Finance	9-12 Months
Cashless Public Transport	Promote mass daily digital adoption	Install QR scanners at metro gates, link with wallets, give small fare discounts for digital users	Metro Bus Authority, CDA	12 months
Monitoring & Evaluation System	Use data to refine and improve adoption strategies	Publish monthly digital dashboard; run annual merchant/consumer surveys	SBP, CDA, PTA, Academia	Dashboard in 3 months; Annual yearly

ANNEX 1: Step-by-Step S-Curve Projection Methodology

1. Select the Target Variable

We modeled the percentage of retail transactions conducted digitally in Islamabad from 2023 to 2030, under the "Reform Push" scenario.

- **Baseline**: ~76% digital retail transactions in 2023
- **Target**: ~99% by 2030 (Upper bound Scenario), based on SBP and city-level digitization goals

2. Choose a Suitable Mathematical Model

We used a logistic growth model (S-curve), appropriate for modeling technology adoption:

$$f(t) = \frac{L}{1 + e^{-k(t-t_0)}}$$

Where: - **L** = maximum adoption level (saturation point, set to 99%) - **k** = growth rate constant (how fast adoption rises) - **t** = time (in years) - t_0 = inflection point (year when growth rate is highest)

3. Calibrate Parameters Using Real Data

We used known data points to fit the curve:

- f(2023) ≈ 76%
- f(2025) ≈ 88% (SBP and policy targets)
- f(2030) ≈ 99%

With L = 99, and using nonlinear curve fitting (e.g., Python scipy.optimize.curve_fit), we obtained:

- **k ≈ 0.75**
- **t_0 ≈ 2025-2026**

This models acceleration around 2025–26 and leveling after 2028.

4. Implement the Model in Python

Using numpy, scipy, and matplotlib:

- Define logistic function
- Fit curve using nonlinear regression
- Predict values f(t) from 2023 to 2030
- Plot S-curve with phases:
    - Early adoption (2023–24)
    - Modest growth (2025–27)
    - Saturation (2028–30)

5. Validate Against Real-World Analogues

We benchmarked against:

- India UPI adoption curve (similar inflection near 80%)
- Literature: S-curves in mobile banking, internet adoption (e.g., Rogers' Diffusion of Innovations, World Bank reports)

6. Interpretation

The resulting S-curve:

- Reflects logistic growth with diminishing returns past ~90–92%
- Shows policy interventions (e.g., incentives, mandates) can shift inflection point earlier

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