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USING DIGITAL ECONOMY OPPORTUNITIES TO REDUCE POVERTY

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Abstract: This study examines how digital economy opportunities are being harnessed to reduce poverty in the Republic of Uzbekistan. Adopting an IMRAD framework, the paper draws on official statistics from the National Statistics Committee, the World Bank, the Central Bank of Uzbekistan, the UNDP, and IT Park Uzbekistan, covering the period 2016–2026. The results show that Uzbekistan's national poverty rate fell from 17.0 percent in 2021 to 5.8 percent in 2025, meeting its halving target three years ahead of schedule, alongside a parallel expansion of digital infrastructure: internet penetration reached 89.0 percent of the population in 2025, digital payment usage among adults rose from 39.0 percent in 2021 to 71.2 percent in 2025, and IT service exports grew from 140 million US dollars in 2022 to 344 million US dollars in 2023, with a government target of 5 billion US dollars by 2030. The paper identifies four channels through which the digital economy contributes to poverty reduction: digital financial inclusion, e-government-enabled social protection targeting, IT-sector job creation, and e-commerce-driven rural market access. The discussion situates these findings within the 'Digital Uzbekistan – 2030' strategy and the National Development Strategy 2022–2026, arguing that digital tools are most effective at reducing poverty when combined with complementary investments in digital literacy and rural connectivity. The paper concludes that sustaining Uzbekistan's poverty-eradication trajectory toward 2030 will depend on closing the remaining urban–rural digital divide and deepening digital-skills training for vulnerable populations.

Keywords: digital economy; poverty reduction; financial inclusion; e-government; Uzbekistan; digital divide

1. INTRODUCTION

Poverty reduction has long depended on income growth, social transfers, and access to employment, but over the past decade a fourth channel has emerged with increasing prominence: the digital economy. Digital financial services, e-government platforms, online marketplaces, and remote-work opportunities allow low-income households to access credit, government support, and income-generating activity in ways that were previously constrained by geography or physical infrastructure. For countries such as Uzbekistan, where a large share of the population historically lived in rural areas with limited access to banks, formal employers, or government offices, digital tools offer a potentially transformative complement to traditional poverty-reduction instruments.

Uzbekistan presents a particularly instructive case. Since adopting a new, internationally comparable poverty methodology in 2021 with World Bank support, the government set an explicit target to halve the national poverty rate by 2026 and to eradicate absolute poverty entirely by 2030. Over the same period, the country has pursued the 'Digital Uzbekistan – 2030' strategy, investing heavily in broadband infrastructure, e-government services, and a government-backed technology hub, IT Park Uzbekistan, intended to grow the information-technology sector into a major source of export revenue and employment. The near-simultaneous pursuit of aggressive poverty-reduction

and digital-transformation targets raises the question of how, and to what extent, these two agendas are mutually reinforcing.

This paper investigates three questions: (1) How have Uzbekistan's poverty indicators evolved alongside its digital-economy indicators over the past five years? (2) Through which specific channels — financial inclusion, government service delivery, employment, or market access — does the digital economy appear to contribute to poverty reduction? (3) What structural constraints could limit the digital economy's continued contribution to poverty eradication by 2030?

The paper follows the IMRAD structure. Section 2 describes the data sources and analytical approach. Section 3 presents descriptive results across poverty trends, digital infrastructure, financial inclusion, the IT sector, and e-government. Section 4 discusses the mechanisms linking digital-economy expansion to poverty outcomes, and Section 5 offers conclusions and policy recommendations.

2. MATERIALS AND METHODS

This study uses a descriptive-analytical design based on secondary data, since no single dataset tracks both poverty status and digital-economy participation at the household level in Uzbekistan. Instead, an indicator-triangulation approach was applied, combining four categories of official and institutional sources: national poverty statistics from the National Statistics Committee and World Bank poverty assessments (2021–2025); digital-connectivity and financial-inclusion data from the Central Bank of Uzbekistan, the Asian Development Bank, and the Global Findex Database (2021 and 2025 rounds); IT-sector performance data published by IT Park Uzbekistan and the Ministry of Digital Technologies (2022–2026); and policy targets set out in the 'Digital Uzbekistan – 2030' strategy and the National Development Strategy 2022–2026.

Indicators were grouped into five analytical dimensions: (a) national poverty trends, (b) digital infrastructure and connectivity, (c) digital financial inclusion, (d) IT-sector employment and export performance, and (e) e-government and digital social-protection targeting. Because poverty and digital-adoption indicators are reported at the national level rather than cross-tabulated by household, the analysis is necessarily correlational rather than causal: parallel trends in poverty decline and digital-economy expansion are documented and interpreted in light of the specific mechanisms described in government and development-partner reports, rather than estimated through a formal econometric model linking the two directly. This is the principal limitation of the study, and the findings should be read as a structured, evidence-based account of plausible channels rather than as a measurement of the digital economy's precise causal contribution to poverty reduction.

3. RESULTS

3.1 National Poverty Trends

Uzbekistan adopted a new, internationally comparable poverty methodology in 2021 with World Bank assistance, replacing an earlier system that could not be benchmarked against global standards. Under this methodology, the national poverty headcount rate fell from 17.0 percent in 2021 to 5.8 percent in 2025 — a two-thirds reduction that met the government's 2026 halving target three years ahead of schedule, moving approximately 1.6 million people out of poverty between

2021 and 2023 alone. Wage-income growth accounted for roughly 60 percent of this progress, with increased social spending contributing much of the remainder. For 2026, the government has set further targets of lifting 181,000 additional families out of poverty, increasing the number of poverty-free mahallas (neighborhoods) 2.5-fold to 3,500, and reducing both unemployment and poverty to 4.5 percent, with a longer-term goal of eradicating absolute poverty entirely by 2030.

Table 1. Selected poverty and digital-economy indicators, 2021 vs. 2025

Indicator	2021	2025
National poverty rate	17.0%	5.8%
Digital payment usage (adults)	39.0%	71.2%
Fixed broadband household penetration	9.6% (2016)	25.0% (2022)
IT service exports (IT Park residents)	$140M (2022)	$344M (2023)

Source: World Bank poverty assessments; Central Bank of Uzbekistan/Asian Development Bank financial-inclusion survey; IT Park Uzbekistan annual reports.

3.2 Digital Infrastructure and Connectivity

Digital infrastructure expanded substantially over the same period. Fixed broadband household penetration rose from 9.6 percent in 2016 to 25.0 percent by December 2022, supported by the deployment of over 122,000 kilometers of fiber-optic network and a large increase in international internet bandwidth by the end of 2021. By early 2025, an estimated 32.7 million individuals were using the internet in Uzbekistan, equivalent to an 89.0 percent penetration rate, while 11.7 million people — around 31.7 percent of the population — held active social-media identities. These gains were concentrated disproportionately in urban centers, leaving a residual rural connectivity gap that is directly relevant to the reach of digital poverty-reduction tools.

3.3 Digital Financial Inclusion

Digital financial inclusion has advanced rapidly. According to a financial-inclusion survey conducted by the Central Bank of Uzbekistan with support from the Asian Development Bank, 71.2 percent of adult respondents reported making or receiving at least one digital payment in 2025, compared with only 39.0 percent in 2021. This growth has been driven by government policies expanding electronic payments and remote customer identification, alongside the rapid expansion of domestically developed fintech 'super-apps' — including Uzum, Payme, and Click, the latter of which surpassed 20 million users in 2025 — which have integrated payments, microloans, e-commerce, and banking services into unified digital ecosystems accessible via mobile phone.

3.4 IT-Sector Employment and Export Performance

Uzbekistan's information-technology sector, anchored by the government-backed IT Park Uzbekistan, has emerged as a direct source of employment and export income. By the end of 2023, IT Park counted 1,652 resident companies, including 426 with foreign-capital participation, generating service revenue of approximately 1.0 billion US dollars and export revenue of 344 million US dollars — nearly 2.5 times the 140 million US dollars recorded in 2022. IT Park resident companies employed more than 26,000 people as of January 2024, of whom 3,641 worked outside the capital, in the regions. Momentum continued into 2025: between September and November of that year alone, 470 new companies joined IT Park, including 267 export-oriented firms projecting more than 70 million US dollars in additional export services by the end of 2026. The government's stated target is to raise IT service exports to 5 billion US dollars annually by 2030, alongside expanding IT Park's resident base to 10,000 companies and creating over 300,000 new jobs.

Table 2. Digital economy indicators and related national targets

Indicator	Value	Year
Internet users	32.7 million (89.0%)	2025
Social media user identities	11.7 million (31.7%)	2025
IT Park resident companies	1,652 (426 foreign-capital)	2023
Employment via IT Park residents	26,000+ (3,641 in regions)	2024
Target: national poverty rate	4.5%	2026
Target: IT service exports	$5.0 billion	2030
Target: families lifted out of poverty	181,000	2026

Source: DataReportal Digital 2025 Uzbekistan report; IT Park Uzbekistan; Ministry of Digital Technologies; World Bank Group Uzbekistan overview (2026).

3.5 E-Government and Digital Social-Protection Targeting

Alongside financial and employment channels, the government has invested in e-government platforms to digitize the identification and delivery of social assistance, including electronic identification, online business registration, and digitized tax administration. These systems are designed to improve the targeting of social benefits toward the poorest households and to reduce the administrative barriers that historically prevented eligible families — particularly in remote or rural areas — from accessing support. Combined with the mahalla-level (neighborhood-level)

poverty-monitoring system that underpins the government's 'poverty-free mahalla' targets, digital record-keeping allows local and national authorities to track household welfare status with greater precision than earlier paper-based systems permitted.

4. DISCUSSION

The parallel trajectories of poverty decline and digital-economy expansion documented above are consistent with four plausible channels through which digital tools support poverty reduction in Uzbekistan. First, digital financial inclusion — reflected in the rise of digital payment usage from 39.0 to 71.2 percent of adults between 2021 and 2025 — extends access to savings, credit, and remittance channels to populations previously excluded from the formal banking system, which is particularly consequential given that remittance income and wage growth have been identified as leading drivers of household poverty exodus in Uzbekistan.

Second, IT-sector employment growth offers a direct income channel, particularly for the country's large youth population. While the roughly 26,000 jobs generated by IT Park residents remain a modest share of Uzbekistan's overall labor force, the sector's projected growth toward 300,000 jobs by 2030, combined with programs to expand IT training into the regions beyond Tashkent, suggests a growing role for digitally enabled employment in areas with historically limited formal job opportunities. The fact that only 3,641 of 26,000 IT Park jobs are currently located outside the capital, however, highlights a significant geographic concentration that has yet to be resolved.

Third, e-government and digital social-registry systems appear to be improving the precision of social-protection targeting, a mechanism distinct from income generation but directly relevant to poverty measurement, since better-targeted transfers can lift marginal households above the poverty line more efficiently than untargeted spending. Fourth, e-commerce and fintech 'super-apps' are lowering the transaction costs of participating in markets for households in areas with limited physical banking or retail infrastructure, potentially extending market access to rural producers and small entrepreneurs.

At the same time, the evidence points to an important structural constraint: the digital divide between urban and rural, and between Tashkent and the regions, has not closed at the same pace as national aggregate indicators suggest. With roughly 11 percent of the population still offline in 2025 and IT-sector employment heavily concentrated in the capital, the households most likely to remain in poverty — typically rural, less urbanized, and with lower educational attainment — are also the households least likely to be fully integrated into the digital economy. This suggests that digital tools have thus far complemented, rather than substituted for, more traditional drivers of poverty reduction such as wage growth and social spending, and that their marginal contribution to closing Uzbekistan's remaining poverty gap by 2030 will depend heavily on whether rural connectivity, digital literacy, and regional IT investment continue to expand at their current pace.

5. CONCLUSION AND RECOMMENDATIONS

This study has examined how Uzbekistan's expanding digital economy relates to its rapid, internationally recognized progress on poverty reduction. Between 2021 and 2025, the national poverty rate fell from 17.0 to 5.8 percent, a decline that unfolded alongside a rise in digital payment usage from 39.0 to 71.2 percent of adults, internet penetration reaching 89.0 percent, and IT service exports growing from 140 million to 344 million US dollars, with a 5-billion-dollar export target

set for 2030. The evidence points to four complementary channels linking digital-economy growth to poverty outcomes: financial inclusion, IT-sector job creation, e-government-enabled social-protection targeting, and e-commerce-driven market access.

Three recommendations follow. First, rural and regional digital infrastructure investment should be prioritized so that broadband and mobile connectivity — and the financial and employment opportunities they enable — reach the population segments most likely to remain in poverty, rather than concentrating gains in Tashkent. Second, digital-literacy and IT-skills training programs should be expanded specifically for low-income and rural populations, ensuring that the digital economy functions as an inclusive on-ramp to income opportunity rather than a further source of inequality between connected and unconnected households. Third, e-government social-registry systems should continue to be refined and cross-linked with digital financial-inclusion data, allowing social-protection targeting to become increasingly precise as Uzbekistan pursues its goal of eradicating absolute poverty by 2030. Pursued together, these measures would help ensure that the digital economy continues to serve as a genuine accelerant of, rather than a bystander to, Uzbekistan's poverty-reduction trajectory.

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