



CENTRAL BANK DIGITAL CURRENCY: GLOBAL EXPERIENCE, POLICY CHALLENGES, AND PROSPECTS FOR UZBEKISTAN

Abduraxmonov Biloliddin Ulug'bek o'g'li

Faculty of Digital Economics, Finance and Financial Technologies

University of Digital Economics and Agrotechnologies (UDEA)

biloliddinabdurahmonov8@gmail.com

ABSTRACT	KEY WORDS
Central bank digital currencies (CBDCs) have become a major policy topic as central banks seek to modernize payment systems, preserve monetary sovereignty, and improve financial inclusion in increasingly digital economies. This article examines global CBDC experience, identifies the principal policy, technological, legal, and economic challenges associated with CBDC development, and assesses the prospects for a potential Digital Soum in Uzbekistan. The study is based on the Technology–Organization–Environment (TOE) framework and Institutional Theory, which together explain how technological readiness, organizational capacity, and external institutional pressure shape CBDC adoption (DePietro, Wiarda and Fleischer, 1990; DiMaggio and Powell, 1983). Methodologically, the paper combines a scoping review of academic and policy literature, comparative policy analysis of selected countries, documentary analysis of Uzbekistan’s policy environment, and a cross-country comparative assessment using publicly available indicators. Evidence from international cases shows that CBDC projects differ significantly in motivation, architecture, and implementation stage, but most are designed as complements to cash and existing payment systems rather than replacements (BIS, 2023). The literature also highlights persistent concerns regarding privacy, cybersecurity, financial stability, commercial bank intermediation, and governance (IMF, 2024). For Uzbekistan, publicly available evidence suggests growing digital financial infrastructure and an exploratory policy environment, although not fully verified official CBDC launch decision is evident in the materials reviewed (Central Bank of the Republic of Uzbekistan, 2026). The paper concludes that Uzbekistan should pursue a phased CBDC strategy built on regulatory clarity, technological readiness, institutional coordination, and limited pilot testing. The findings contribute to the emerging literature on CBDC adoption in emerging and transition economies and provide policy-relevant lessons for Uzbekistan (World Bank, 2025; Atlantic Council, 2026).	Central bank digital currency; digital soum; Uzbekistan; payment systems; financial inclusion; monetary policy; TOE framework; institutional theory.

Introduction

Digitalization has transformed financial services, especially payments, by enabling faster, cheaper, and more accessible transactions. Over the last decade, this shift has encouraged central banks to reconsider the future of sovereign money in a financial system that is increasingly digital (BIS, 2020). Central bank digital currency has emerged as one of the most important policy innovations under discussion because it combines the trust of central bank money with the functionality of digital payments (IMF, 2024).

Globally, central banks have explored CBDCs for multiple reasons, including payment efficiency, financial inclusion, resilience in retail payments, monetary sovereignty, and competition with private digital currencies (BIS, 2022). At the same time, CBDC design and implementation raise difficult questions about privacy, cybersecurity, operational resilience, bank intermediation, and legal oversight (IMF, 2024).

These concerns are especially important in emerging and transition economies, where digital infrastructure and regulatory capacity may still be developing (World Bank, 2025).

Uzbekistan is a relevant case because it has also accelerated digital finance reforms and is publicly discussing possible CBDC scenarios. Recent reporting indicates that the Central Bank is considering retail and wholesale models of a Digital Soum, while the official fintech strategy for 2026–2030 emphasizes digital infrastructure, regulatory sandboxes, and innovation capacity. At the same time, public Central Bank materials also show broader efforts to strengthen payment infrastructure and fintech readiness. These sources together suggest an exploratory policy environment rather than a confirmed launch decision (Central Bank of the Republic of Uzbekistan, 2026).

Research questions

This study is guided by the main research question: “What lessons can be drawn from global Central Bank Digital Currency initiatives, and how can these lessons inform the potential development and implementation of a CBDC in Uzbekistan?”

Sub-questions:

1. What motivations have driven central banks to explore or implement CBDCs?
2. What technological and governance models have been adopted globally?
3. What policy, legal, technological, and economic challenges have emerged?
4. What is Uzbekistan’s current level of readiness for CBDC implementation?
5. What policy recommendations can support the successful introduction of a Digital Soum?

Theoretical framework

The paper is grounded in two complementary theoretical perspectives: the Technology–Organization–Environment framework and Institutional Theory. The TOE framework argues that technology adoption is shaped by technological, organizational, and environmental conditions. In the context of CBDCs, the technological dimension includes digital infrastructure, interoperability, and cybersecurity; the organizational dimension includes central bank capacity, coordination with commercial banks, and operational governance; and the environmental dimension includes regulatory pressure, payment market structure, and broader digitalization (DePietro, Wiarda and Fleischer, 1990; BIS, 2022).

Institutional Theory complements TOE by explaining why organizations and states adopt innovations not only because they are technically feasible, but also because they face legitimacy pressures, coercive regulation, and mimetic learning from peer jurisdictions. In CBDC policy, this means that countries may adopt or explore CBDCs partly because other central banks are doing so, global standards are evolving, and digital money is becoming institutionally normalized. TOE and Institutional Theory provide a useful lens for explaining why CBDC adoption varies across countries and why some economies move quickly into pilots while others remain in research stages (DiMaggio and Powell, 1983).

Literature review

CBDC concept and evolution

CBDCs are digital forms of central bank money backed by national government and denominated in the national unit of account and issued by the monetary authority. Unlike cryptocurrencies, they are sovereign liabilities and can be designed for retail use by the public or wholesale use between financial institutions (BIS, 2020). The policy literature increasingly views CBDCs as part of the broader evolution of digital money, which has progressed from cash and bank deposits to cards, e-money, mobile payments, stablecoins, and now sovereign digital currency. The literature suggests that CBDCs are not a substitute for all existing instruments, but rather one possible component of a broader digital money ecosystem (IMF, 2025).

Competing motivations for CBDCs

The literature identifies several motivations for CBDC exploration. In many countries, the strongest arguments relate to improving payment efficiency, expanding financial inclusion, and strengthening resilience in the payment system (World Bank, 2025). In some economies, CBDCs are also seen to preserve monetary sovereignty and reduce dependence on private or foreign-controlled payment infrastructures (IMF, 2025).

However, these motivations differ across settings. Advanced economies often focus on the declining role of cash and the need for a public option in digital payments, while emerging economies more often emphasize access, inclusion, and modernization (World Bank, 2025). This diversity of objectives means that a successful CBDC design must respond to a specific national problem rather than imitate another country's model.

Design choices and trade-offs

The literature distinguishes mainly between retail and wholesale CBDCs. Retail CBDCs are intended for households and firms, while wholesale CBDCs are designed for interbank settlement and financial market transactions (BIS, 2023). Other important design choices include account-based versus token-based access, direct versus intermediated architecture, centralized versus distributed ledger systems, privacy settings, and offline payment functionality (IMF, 2025).

These choices matter because they determine the policy and operational consequences of CBDC adoption. Account-based systems may enhance traceability and compliance, while token-based systems may resemble cash more closely. Intermediated models can preserve the role of commercial banks and payment providers, whereas direct models place more functions under the central bank (IMF,

2025). The literature increasingly suggests that design trade-offs are not technical details but core policy decisions (BIS, 2023).

Benefits, risks, and adoption

CBDCs are commonly promoted as tools for improving payment efficiency, lowering transaction costs, expanding financial inclusion, and strengthening payment system resilience (World Bank, 2025). In emerging markets, CBDCs are often discussed as part of broader efforts to enhance access to formal finance and improve the effectiveness of digital public infrastructure. Another argument is that CBDCs can help central banks preserve monetary sovereignty in the face of growing private digital money and foreign payment infrastructures (IMF, 2024).

The literature also identifies major risks. Privacy is a central concern because CBDC systems may create detailed transaction records and reduce user anonymity (IMF, 2024). Cybersecurity is another critical issue because CBDC platforms would become attractive targets for fraud, technical failure, and cyberattack (IMF, 2025). Financial stability concerns arise if households move deposits from banks into CBDCs, potentially affecting bank funding and credit creation (BIS, 2022; IMF, 2025). Legal and institutional issues are also important, consumer protection, cross-border interoperability, and accountability in governance (BIS, 2023; IMF, 2025). Overall, the literature shows that CBDC adoption is not only a technological decision but also a regulatory and institutional reform process (IMF, 2025).

Methodology

This paper uses a scoping literature review, comparative policy analysis, documentary analysis, and a cross-country comparative assessment. The review protocol searched Scopus, Web of Science, Google Scholar, SSRN, BIS publications, IMF reports, World Bank reports, and official central bank and government documents in English, Russian, and Uzbek. The review period covered 2018–2026, reflecting the period during which CBDC policy debate intensified globally (BIS, 2023). Inclusion criteria prioritized peer-reviewed articles, official reports, central bank publications, legal or strategic documents.

The data extraction framework captured CBDC motivation, design, governance, implementation stage, reported outcomes, and challenges. For each country, the following variables were recorded: country name, CBDC type, implementation status, dominant motivation, technology/design model, governance approach, key challenges, and main lesson for policy transfer (IMF, 2025). For Uzbekistan, documentary analysis focused on Central Bank materials, government strategies, regulatory documents, and official statements to determine whether the country is at the exploratory, pilot-planning, or implementation stage (Central Bank of the Republic of Uzbekistan, 2026). Thematic synthesis was then used to identify recurring patterns and produce a readiness assessment.

This study synthesizes evidence from English, Russian, and Uzbek academic publications, official policy documents, and central bank reports. This multilingual approach provides a more comprehensive assessment of Uzbekistan's policy environment and situates it within the broader international CBDC landscape (Central Bank of the Republic of Uzbekistan, 2026).

Quantitative comparative analysis

The qualitative review is complemented by a cross-country comparative analysis using a small empirical dataset. The sample includes 11 countries selected to capture different CBDC stages and institutional contexts. The most useful variables are GDP per capita, financial inclusion, internet penetration, mobile payment adoption, and CBDC development stage. The Atlantic Council CBDC Tracker and the World Bank Global Findex 2025 are especially useful because they provide broad cross-country coverage and updated CBDC status data (Atlantic Council, 2026; World Bank, 2025). The data (Table-1) was used to extract the key variables to construct the comparative table.

Table-1: Data extraction protocol

Variable	Description
Country	Name of the country or jurisdiction
CBDC type	Retail, wholesale, or hybrid
Status	Research, pilot, live, or abandoned
Motivation	Financial inclusion, payments efficiency, sovereignty, innovation
Technology	Centralized, token-based, account-based, or hybrid
Governance	Direct, intermediated, or multi-stakeholder
Major challenge	Privacy, cybersecurity, adoption, regulation, stability
Main lesson	Important policy takeaways for Uzbekistan

Source: BIS, 2022; IMF, 2025.

Comparative analysis of global CBDC initiatives

Global CBDC development has accelerated sharply, with most countries now studying some form of digital currency. According to the Atlantic Council's CBDC Tracker, 146 countries, covering more than 98 percent of global GDP, are exploring CBDCs, while a small number have already launched them and many others are in pilot or advanced research phases (Atlantic Council, 2026). This shows that CBDCs have moved from a niche policy idea into a mainstream area of central bank experimentation.

The evidence also suggests that CBDC design priorities differ across country groups. In emerging market economies, BIS research shows that central banks focus especially on retail payment use cases, financial inclusion, data governance, financial stability, and cross-border payment issues (BIS, 2023). These countries often view CBDCs as practical tools for expanding access to digital finance and improving payment efficiency. In most cases, CBDCs are being designed as complements to cash and existing payment systems rather than as direct replacements (BIS, 2022).

By contrast, advanced digital economies tend to emphasize different goals. Their central banks are more likely to highlight resilience, the continued role of public money in a cash-light environment, and the need to preserve sovereign monetary functions as private digital payment systems grow (BIS, 2023). This contrast matters because it shows that CBDC adoption is not driven by one universal logic. Instead, each country is responding to its own payment structure, policy pressures, and financial market conditions.

Overall, the literature suggests that there is no single CBDC model suitable for all countries. The IMF notes that successful CBDC design must reflect domestic institutional capacity, policy priorities, and

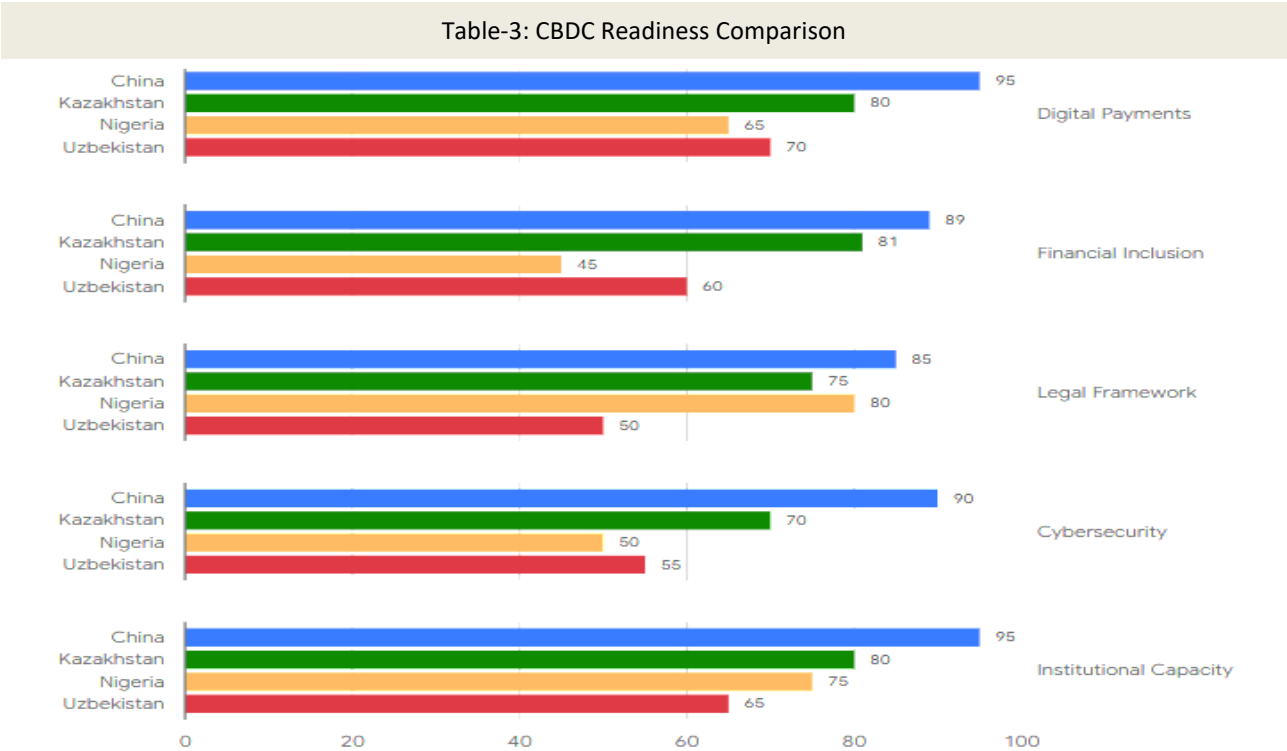
technological readiness, which means countries should adapt lessons from others rather than copy them directly (IMF, 2025).

Table-2: Comparative country overview

Country	CBDC name	Status	Objective	Technology	Governance	Major challenge	Key lesson
China	e-CNY	Large-scale pilot	digital modernization	Intermediated account-based	Central bank led	Adoption beyond test settings	Strong state capacity helps
Nigeria	eNaira	Live, retail CBDC	Inclusion, digital payments	Retail model	Central bank led	Trust and usage barriers	Launch alone does not guarantee adoption
India	Digital Rupee	Pilot, expanding	Retail and wholesale experimentation	Mixed architecture	Intermediated	Scaling and user incentives	Large systems can proceed in stages
EU	Digital Euro	Advanced preparation	Monetary sovereignty, resilient payments	Intermediated retail design	Multi-institutional	Privacy and disintermediation	Privacy and bank intermediation require balance
Kazakhstan	Digital Tenge	Pilot stage	Inclusion, payments modernization	Pilot-based architecture	Intermediated	Regional interoperability	Regional experience is relevant to Uzbekistan
South Korea	Digital Won	Research stage	Digital payments, monetary options	Research-oriented	Central bank led	Defining public demand	Strong digital readiness does not imply launch
Japan	Digital Yen	Research stage	Payment resilience	Research-oriented	Central bank led	Institutional caution	Caution can coexist with technical readiness (Atlantic Council, 2026)
United Kingdom	Digital Pound	Research stage	Payment resilience, sovereignty	Research-oriented	Public consultation	Legitimacy and trust	Public consultation is central
UAE	Digital dirham	Pilot, research	Payment modernization	Interoperability focus	Interbank-focused	Integration across institutions	Regional financial hubs prioritize infrastructure and settlement
Hong Kong	e-HKD	Pilot, research	Retail and wholesale experimentation	Multi-track exploration	Multi-stakeholder	Choosing the right use case	A dual-track approach can test multiple policy uses
Thailand	Digital baht	Pilot, research	Inclusion and payments innovation	Research-oriented	Central bank led	Aligning with domestic payment behaviour	Pilot design should fit domestic payment behaviour

Source: Atlantic Council, 2026.

The Table-3 evaluates CBDC readiness across four diverse jurisdictions. China demonstrates advanced maturity across all five dimensions, while Kazakhstan serves as a strong regional benchmark with balanced capabilities. Despite launching the eNaira, Nigeria reveals critical gaps in financial inclusion and cybersecurity.



Source: Atlantic Council, 2026

Crucially, the index highlights Uzbekistan’s current transitional phase: while its digital payment infrastructure (70) and institutional capacity (65) are progressing steadily, significant vulnerabilities persist in its legal framework (50) and cybersecurity preparedness (55). This empirical comparison visually reinforces the core policy recommendation that Uzbekistan must prioritize regulatory and security infrastructure before executing a nationwide Digital Soum rollout.

Uzbekistan: opportunities and challenges

Uzbekistan has made notable progress in digital finance and payment modernization. Available official materials show that the Central Bank’s financial technology strategy for 2026–2030 prioritizes digital infrastructure, regulatory sandboxes, investment, and talent development. Public reporting further indicates that the Central Bank is exploring Digital Soum scenarios and that a roadmap for pilot work has been discussed within the fintech support program for 2025–2026. Together, these sources support the interpretation that Uzbekistan is in an exploratory and preparatory phase rather than a confirmed launch phase.

Table-3: Global Findex: Uzbekistan's Financial Inclusion

Europe & Central Asia		Lower middle income	
Population, age 15+ (millions)	24.6	GNI per capita (\$)	2,190.0
Variable Name (% age 15+)	Country data	Europe & Central Asia	Lower middle income
Account			
All adults, 2024	59.7	77.8	70.4
All adults, 2021	44.1	77.6	62.1
All adults, 2011	22.5	44.4	30.5
Account, by type			
Account at a bank or similar financial institution	59.7	77.6	65.0
Mobile money account	..*	8.4	24.4
Digitally enabled account (any account used with a card or phone)	43.8	61.4	36.8

Source: World Bank, 2025

The country's opportunity lies in the fact that CBDC discussion is taking place alongside wider reforms in digital payments. Recent developments include a national payment switch and regulatory sandbox activity in digital finance. These reforms may create part of the institutional and technical foundation needed for future CBDC testing.

Table-4: Digital payments growth in Uzbekistan

Made or received digital payments in the past year			
All adults, 2024	49.9	69.1	47.3
All adults, 2021	41.7	73.7	38.4
Made a digital merchant payment, 2024	38.1	51.4	19.9
Made a digital merchant payment, 2021	32.6	53.7	12.3
Made an online bill payment	24.1	42.2	16.2
Received a government payment into an account	32.0	27.6	15.6
Received a private sector wage into an account	3.3	22.5	11.2
Saving money in the past year			
Saved formally or informally	32.2	40.6	42.9
Saved formally using an account, 2024	9.2	23.3	26.1
Saved formally using an account, 2021	2.6	13.5	15.0
Saved informally using a savings club or a person outside the family	10.3	8.4	14.4
Borrowing in the past year			
Borrowed formally or informally	39.5	55.1	62.4
Borrowed formally	11.8	28.8	14.1
Financially resilient: Not difficult to access extra money in 30 days			
All adults	63.4	64.0	40.6
Women	57.7	59.0	34.9
Adults in the poorest 40% of households	53.7	50.6	28.5
Could cover more than 2 months of expenses if income is lost	26.6	24.0	27.3
Mobile connectivity			
Has a personal mobile phone	82.3	93.6	75.1
Women	76.7	92.0	66.6
Adults in the poorest 40% of households	76.8	92.2	67.2
Has a personal smartphone	70.2	82.4	50.0
Women	66.0	79.9	42.8
Adults in the poorest 40% of households	63.1	78.4	36.4
Has a password on their mobile phone	46.9	63.1	42.3

Source: World Bank, 2025

Current financial inclusion data also suggest that the environment is becoming more favourable for digital money adoption. Global Findex 2025 indicates that 60 percent of adults in Uzbekistan have an account, nearly double the 2017 level, and that digital payments and mobile money use have grown substantially. This matters because CBDC adoption is more likely where digital account ownership and mobile payment use are already expanding (World Bank, 2025).

At the same time, several challenges remain. The legal framework would need to clarify issuance authority, user protection, privacy safeguards, and the relationship between CBDC and commercial bank deposits. Technical readiness would require secure infrastructure, interoperability across payment providers, and cybersecurity capacity. Adoption may also be limited if the public does not see strong benefits relative to existing payment tools (IMF, 2025).

Uzbekistan readiness assessment

Dimension	Current status	Readiness judgment	Basis
Legal framework	Emerging	Moderate	CBDC-specific rules still need clarification (IMF, 2025).
Technology infrastructure	Improving	Moderate to good	Payment modernization and payment switch development (Central Bank of the Republic of Uzbekistan, 2026).
Digital payments	Stronger than before	Good	Account ownership and digital transaction use are rising (World Bank, 2025).
Financial inclusion	Moderate	Improving	Findex shows growth, but gaps remain (World Bank, 2025).
Cybersecurity	Developing	Moderate	Needs stronger readiness before launch (IMF, 2025).
Institutional capacity	Moderate	Moderate	Research stage, not implementation stage

Source: IMF, World Bank, 2025, Central Bank of Uzbekistan.

This assessment suggests that Uzbekistan has an enabling environment, but not yet full readiness for a national CBDC rollout. Its payments infrastructure is improving, financial inclusion and digital transactions are rising, and the Central Bank is actively developing fintech strategy and payment modernization. However, the legal framework is still emerging, cybersecurity preparedness remains limited, and institutional capacity is only moderate. Public reporting suggests policy interest in a digital soum, but official evidence still points to an exploratory stage rather than implementation. Overall, the best approach is a phased pilot, not immediate nationwide launch, so policymakers can test demand, governance, interoperability, and security first.

Discussion

The global evidence demonstrates that CBDCs are not a single policy formula, but a set of design choices shaped by domestic priorities, infrastructure, and governance capacity (BIS, 2023). For Uzbekistan, this means CBDC should not be treated as a symbolic digital innovation. It should be evaluated as part of a broader reform of payment systems, monetary governance, and financial infrastructure.

The TOE framework helps explain why some countries move faster than others. Where digital infrastructure is robust, institutions are coordinated, and the external environment is favourable, CBDC experimentation becomes easier (DePietro, Wiarda and Fleischer, 1990). For Uzbekistan, the technological dimension is improving, but still requires stronger interoperability, cybersecurity, and integration across payment services. Organizationally, the Central Bank has created strategic

momentum, but the system still needs more operational clarity and implementation detail. Environmentally, the fintech policy climate and regional CBDC diffusion are increasing pressure to explore digital currency options (Atlantic Council, 2026; DiMaggio and Powell, 1983).

Institutional Theory adds that countries also adopt because CBDC is becoming globally legitimate and because they respond to peer-country diffusion and regulatory pressures. In Uzbekistan, this is visible in the broader fintech reform agenda and public discussion of pilot pathways, but the evidence still points to exploration rather than commitment. The relevant question is therefore whether the technological and institutional preconditions are sufficiently developed for a safe and useful rollout (DePietro, Wiarda and Fleischer, 1990; DiMaggio and Powell, 1983).

Three lessons are especially important. First, CBDCs work best when they solve a clearly identified policy problem, such as weak access, payment fragmentation, or high transaction costs. Second, intermediated designs are usually more practical because they preserve the role of commercial banks and payment providers (BIS, 2023). Third, adoption depends on trust, convenience, and compatibility with existing financial behaviour (IMF, 2025).

For Uzbekistan, the strongest policy case appears to be a phased, interoperable, and institutionally governed digital public payment instrument. The country is already strengthening digital payment architecture through switches, fintech regulation, and strategy development. If this continues, a limited pilot could be tested in a narrow use case such as interbank settlement or government-linked payments.

Implications for emerging economies

Emerging economies differ from advanced economies because they often face a dual challenge: they must modernize payment systems while also expanding access and protecting financial stability. This means that imported CBDC models may not transfer cleanly. China's scale, the EU's institutional depth are not directly reproducible in Uzbekistan (Atlantic Council, 2026). Instead, Uzbekistan should adopt a selective learning approach that borrows specific design lessons while preserving local policy flexibility (DiMaggio and Powell, 1983; IMF, 2025).

The readiness index approach is therefore especially useful for emerging economies because it allows comparison without assuming that one pathway fits all countries. It also helps identify which dimensions require policy action first: legal reform, cybersecurity, public communication, or payment interoperability.

In this sense, the paper contributes not only to CBDC debate but also to transition-economy research on digital public infrastructure.

In TOE terms, Uzbekistan's technological conditions are improving but incomplete, organizational capacity is emerging but not yet mature, and environmental pressure is increasing due to regional and global CBDC diffusion. In Institutional Theory terms, the country faces growing legitimacy incentives to explore digital currency but still appears to be in a cautious exploratory phase rather than a committed implementation phase.

However, a premature launch would create unnecessary risks. Without a legal basis, cybersecurity readiness, and effective communication, a CBDC could suffer from confusion, low uptake, and trust problems. The policy lesson is therefore to prioritize readiness before rollout. This is consistent with the broader international pattern in which many countries remain in research or pilot stages rather than full implementation (Atlantic Council, 2026).

Limitations

This study has several limitations. First, it relies on secondary sources, including official documents, policy reports, and published literature, rather than primary interviews or fieldwork. Second, CBDC policy is changing rapidly, so the findings reflect the most recent evidence available at the time of writing but may require updating as new pilots and official decisions. Third, the Uzbekistan readiness assessment is exploratory and based on publicly available evidence, not on a fully implemented national dataset. Finally, where official documentation remains limited, media reports are used only as supplementary evidence and are not treated as definitive policy proof.

Policy recommendations

Uzbekistan should treat the Digital Soum as a policy project, not just a technology project. The first step is to define its purpose clearly: whether it is meant for retail payments, wholesale settlement, government transfers, or a hybrid model. Without this, design choices will remain inconsistent, and the project may lack a clear public value proposition.

Second, the legal framework must be strengthened before any launch. This should cover issuance authority, user rights, privacy protections, consumer safeguards, dispute resolution, and the CBDC's relationship with commercial bank deposits and existing payment law. Third, technical preparation should prioritize interoperability with banks and payment providers, offline functionality, resilience, and strong cybersecurity. Fourth, the Central Bank should begin with a small pilot in one or two controlled use cases rather than a nationwide rollout.

Fifth, Uzbekistan should create a multi-stakeholder governance model involving the Central Bank, Ministry of Finance, commercial banks, fintech firms, and telecom operators.

Sixth, public communication and user education will be essential to build trust and prevent misunderstanding. Seventh, the country should monitor international CBDC experiments closely and maintain active cooperation with global institutions and peer central banks for benchmarking and technical learning.

Eighth, the pilot should be evaluated using clear performance indicators such as usage, transaction speed, cost, reliability, security, and public acceptance.

Ninth, Uzbekistan should assess financial stability risks early and ensure that CBDC design does not disrupt credit intermediation.

Tenth, the project should remain modular and flexible so it can be adjusted as technology, regulation, and user demand evolve.

Conclusion

CBDCs are now a major part of the global policy debate, but countries are pursuing them for different reasons and with different design choices. The international experience shows that CBDC success is not about copying a single model; it depends on matching technology, governance, and policy goals to local conditions. Some countries prioritize payment efficiency, others financial inclusion, monetary sovereignty, or resilience in a cash-light economy. This makes CBDC development highly context-specific rather than universally standardized.

For Uzbekistan, the evidence points to growing interest and some institutional preparation, but not yet to full readiness for a rapid nationwide launch. The country is improving its digital payments infrastructure and exploring fintech reforms, yet important gaps remain in legal clarity, cybersecurity,

and implementation capacity. This suggests that Uzbekistan is better positioned for a phased pilot approach than for immediate large-scale deployment.

The paper contributes to three main ways. First, it offers a structured review of global CBDC literature and compares policy experiences across countries. Second, it uses the TOE framework and Institutional Theory to explain why CBDC adoption differs across national settings. Third, it provides an Uzbekistan-specific readiness assessment that can support policy design in Central Asia. Together, these contributions make the study useful both for theory and for practical policymaking.

A future study could build on this work by turning the readiness assessment into a more formal index and testing statistically how digital readiness, financial inclusion, and institutional capacity shape CBDC development stage across countries.

References

1. Atlantic Council (2026) Central Bank Digital Currency Tracker. <https://www.atlanticcouncil.org/cbdctracker>.
2. Bank for International Settlements (2020) Rise of the central bank digital currencies: Drivers, approaches and technologies. BIS Working Papers No. 880. Basel: Bank for International Settlements. <https://www.bis.org/publ/work880.htm>
3. Bank for International Settlements (2022) CBDCs in emerging market economies. BIS Papers No. 123. Basel: Bank for International Settlements. Available at: <https://www.bis.org/publ/bppdf/bispap123.pdf>
4. Bank for International Settlements (2023) Results of the third BIS survey on central bank digital currency. BIS Papers No. 114. Basel: Bank for International Settlements. <https://www.bis.org/publ/bppdf/bispap114.pdf>
5. Central Bank of the Republic of Uzbekistan (2026a) Strategy 2026–2030. Tashkent: Central Bank of the Republic of Uzbekistan. Available at: <https://cbu.uz/en/fintech/strategy>
6. Central Bank of the Republic of Uzbekistan (2026b) The Central Bank of Uzbekistan launches the Silk Road Finance & Technology Forum. Available at: https://cbu.uz/en/press_center/releases/3975955
7. DePietro, R., Wiarda, E. and Fleischer, M. (1990) ‘The context for change: Organization, technology and environment’, in Tornatzky, L.G. and Fleischer, M. (eds.) *The Processes of Technological Innovation*. Lexington, MA: Lexington Books, pp. 151–175.
8. DiMaggio, P.J. and Powell, W.W. (1983) ‘The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields’, *American Sociological Review*, 48(2), pp. 147–160. <https://doi.org/10.2307/2095101>
9. Gazeta.uz (2026) ‘Uzbekistan considers launching digital soum, says Central Bank’, 16 January. Available at: <https://www.gazeta.uz/en/2026/01/16/digital-soum>
10. International Monetary Fund (2024) Central bank digital currency adoption. IMF Fintech Note No. 2024/005. Washington, DC: International Monetary Fund. Available at: <https://www.imf.org/-/media/Files/Publications/FTN063/2024/English/FTNEA2024005.pdf>
11. International Monetary Fund (2025) Central bank digital currency: Further navigating challenges and risks. IMF Policy Paper. Washington, DC: International Monetary Fund. Available at: <https://www.imf.org/-/media/Files/Publications/PP/2025/English/PPEA2025041.pdf>

12. Kursiv Uzbekistan (2025a) 'Uzbekistan creates mandatory national payment switch', 30 November. Available at: <https://uz.kursiv.media/en/2025-11-30/uzbekistan-builds-its-own-national-switch-to-lock-down-digital-payments>
13. Kursiv Uzbekistan (2025b) 'Uzbekistan approves stablecoin sandbox as fintech sector accelerates toward 2030', 8 December. Available at: <https://uz.kursiv.media/en/2025-12-08/uzbekistan-approves-stablecoin-sandbox-as-fintech-sector-accelerates-toward-2030>
14. World Bank (2025) Global Findex Database 2025: Connectivity and financial inclusion in the digital economy. Washington, DC: World Bank. Available at: <https://www.worldbank.org/en/publication/globalfindex/report>.