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DIGITAL TECHNOLOGIES AND THE INSTITUTIONALIZATION OF ISLAMIC FINANCE IN UZBEKISTAN'S BANKING SECTOR: OPPORTUNITIES, BARRIERS, AND A STRATEGIC ROADMAP

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Abstract. This article examines the role of digital technologies in the faster and more manageable implementation of Islamic finance in Uzbekistan's banking sector amid the formation of a new legal, institutional and technological framework. The relevance of the topic is determined by the adoption of Law of the Republic of Uzbekistan No. ZRU-1126 of March 27, 2026, aimed at introducing Islamic banking activities, as well as by strategic priorities for developing Islamic finance in commercial banks by 2030. The purpose of the article is to substantiate how digital technologies can facilitate the accelerated and more controlled implementation of Islamic finance through product standardization, automation of operational procedures, digital Shariah compliance, segregated accounting, RegTech reporting and broader customer outreach through remote channels. The practical outcome of the study is a roadmap for the digital implementation of Islamic finance for 2026-2030.

Keywords: Islamic finance, Islamic banking, Islamic windows, digital transformation, financial technology, RegTech, Shariah compliance, dual compliance, Islamic Core Banking, banking sector, Uzbekistan.

Introduction

Islamic finance is becoming one of the most promising areas for the development of Uzbekistan's banking sector. Its implementation is associated not only with broadening the product range of commercial banks, but also with a wider agenda: increasing financial inclusion, attracting new sources of investment, developing alternative financial instruments and integrating the national financial market into the global Islamic finance industry.

The global Islamic finance market continues to develop steadily. According to the Islamic Financial Services Board, the assets of the global Islamic financial services industry reached USD 3.88 trillion in 2024 [14]. This confirms that Islamic finance is not a niche phenomenon, but a significant segment of the international financial system, comprising Islamic banks, sukuk, takaful, Islamic investment funds and non-bank financial institutions.

For Uzbekistan, the adoption of Law of the Republic of Uzbekistan No. ZRU-1126 of March 27, 2026, On Amendments and Additions to Certain Legislative Acts of the Republic of Uzbekistan Aimed at Introducing Islamic Banking Activities in Uzbekistan, is of particular importance. The law enters into force on June 29, 2026 and establishes the legal foundations for Islamic banking activities, including licensing, Islamic financial standards, Islamic financial operations, the Central Bank Council on Islamic Finance, Islamic finance councils in banks, dedicated Islamic finance units and internal audit for Islamic finance [1].

The Uzbekistan 2030 Strategy provides for the introduction of Islamic finance criteria and procedures in at least three commercial banks [2]. This means that Islamic finance must move from

a regulatory concept to practical implementation in the banking sector. However, the adoption of a law alone does not guarantee the rapid and sustainable launch of Islamic financial products. Banks must adapt their business processes, contractual framework, accounting, IT systems, risk management, internal control, customer channels and Shariah compliance mechanisms.

The distinctive feature of the current stage is that Uzbekistan is beginning the systematic implementation of Islamic finance at a time when its digital financial infrastructure is actively developing. The Central Bank of the Republic of Uzbekistan has approved the National Strategy for the Development of Financial Technologies for 2026-2030, aimed at strengthening digital financial infrastructure, attracting investment and developing human capital [3]. As part of the fintech agenda, the Central Bank also operates a regulatory sandbox, a mechanism for testing innovative financial technology products and services in a controlled environment [4].

Against this background, the research question is as follows: how can digital technologies contribute to the accelerated and more controlled implementation of Islamic finance in Uzbekistan's banking sector while preserving Shariah compliance, sound risk management, segregated accounting and regulatory resilience?

The research hypothesis is that digital technologies create the preconditions for the accelerated and more controlled implementation of Islamic finance because they make it possible to embed the requirements of Islamic financial standards, segregated accounting, risk management and regulatory reporting into the product architecture in advance. In other words, a digital platform can become not only a customer service channel, but also an instrument for ensuring compliance with Islamic financial standards, banking regulation and the bank's internal requirements.

The scientific novelty of the study lies in the development of an approach to implementing Islamic finance in Uzbekistan's banking sector through a model of digital acceleration, in which digital platforms are regarded as one of the key infrastructural mechanisms for simultaneously addressing three tasks: standardizing Islamic financial products, ensuring dual compliance and scaling Islamic windows in commercial banks.

The purpose of the article is to determine the role of digital technologies as a catalyst for the accelerated and more manageable implementation of Islamic finance in Uzbekistan's banking sector, to identify the key opportunities and barriers to digitalization, and to propose a roadmap for implementing digital solutions in 2026-2030.

To achieve this purpose, the article addresses the following tasks:

1. to explain the theoretical link between digital transformation and the development of Islamic finance;
2. to characterize the current regulatory and institutional state of Islamic finance in Uzbekistan;
3. to identify digital technologies capable of supporting the launch of Islamic financial products;
4. to analyze international experience in the digitalization of Islamic finance;
5. to identify the main barriers and risks of digitally implementing Islamic finance;
6. to propose a phased roadmap for 2026-2030.

1. Theoretical Foundations of the Digital Transformation of Islamic Finance

Islamic finance is a system of financial relations based on the principles of Islamic law and differs from the conventional interest-based model of banking. The key principles of Islamic finance include the prohibition of riba, the connection of a financial transaction with a real asset or economic activity, the sharing of profit and risk among participants, the prohibition of excessive uncertainty and speculative transactions, and compliance with ethical requirements.

In banking practice, these principles are implemented through instruments such as mudarabah, musharakah, murabahah, wakalah, salam, ijarah and other forms of financing that comply with Islamic financial standards. Unlike conventional lending, an Islamic financial transaction often requires a more complex contractual and operational structure. The bank must ensure not only customer assessment, but also the correct structure of the transaction, linkage to an asset, proper distribution of income, segregated accounting, disclosure of terms to the client and compliance with Islamic financial standards.

It is precisely this complexity that explains the importance of digital technologies. In a traditional model, launching an Islamic banking product may involve a substantial number of manual procedures: individual review of contracts, manual confirmation of transaction stages, separate approval of operations, manual consolidation of data for reporting and subsequent oversight by the Islamic finance council. Such a model may be acceptable at the pilot stage, but it becomes unsustainable when scaled.

Digital transformation makes it possible to move a significant part of repetitive procedures into an automated environment. If the requirements of Islamic financial standards are embedded into the product module, contractual templates, control fields, accounting entries, customer interfaces and reporting, the bank can reduce operating costs while improving the quality of control.

Theoretically, the digitalization of Islamic finance can be viewed as a mechanism for reducing three types of costs.

The first type is transaction costs. These relate to the search for information, preparation of documents, customer verification, asset confirmation, contract conclusion and transaction execution. Digital channels, electronic document management and API integrations can reduce manual actions and accelerate application processing.

The second type is operating costs. These are associated with the day-to-day servicing of Islamic financial operations: settlements, schedules, accounting, changes in terms, monitoring, reporting and internal control. Automation reduces dependence on manual procedures and lowers the probability of errors.

The third type is compliance costs. Islamic finance requires simultaneous compliance with banking regulation and Islamic financial standards. This creates dual compliance, a two-layer compliance framework. Digital RegTech tools can automate part of the checks, create a digital audit trail of operations and enhance transparency for the bank, the Islamic finance council and the regulator.

Thus, digital transformation does not remove the methodological, legal and Shariah requirements of Islamic finance. On the contrary, its importance lies in making those requirements executable within a mass banking process.

2. Regulatory and Institutional Preconditions for the Development of Islamic Finance in Uzbekistan

Law No. ZRU-1126 establishes the basic legal framework for Islamic banking activities in Uzbekistan. It defines Islamic banking activities, Islamic financial standards and Islamic financial operations. The law also introduces amendments to legislation on the Central Bank, banks and banking activities, tax regulation and other related areas [1].

The following are classified as Islamic financial operations of a bank:

1. financing a client or attracting funds into investment deposits on a profit-sharing basis;
2. providing funds or attracting funds on the basis of an agency agreement;
3. financing a client through the sale of goods by installments;
4. financing a client through advance payment for goods;

5. financing a client through joint activity, partnership or participation in the charter capital of legal entities;

6. providing property under an Islamic lease with a purchase option.

This list creates a regulatory basis for introducing key Islamic financial instruments: mudarabah, wakalah, murabahah, salam, musharakah and ijarah. At the same time, the law permits other Islamic financial operations that do not contradict legislation and comply with Islamic financial standards.

An important institutional innovation is the establishment of the Central Bank Council on Islamic Finance. Such a council should support the coordination of Islamic financial activities, the development of Islamic financial standards, the preparation of regulatory legal acts, clarification of disputed issues and the issuance of opinions on matters related to Islamic financial activities.

At the level of commercial banks, the law requires the existence of an Islamic finance council, a dedicated unit responsible for Islamic finance and internal audit for Islamic finance. To obtain a license for Islamic banking activities, a bank that already holds a conventional banking license must submit to the Central Bank information confirming the establishment of these bodies and units, a three-year business plan and documents confirming the ability to maintain separate accounting for financial operations carried out within Islamic banking activities [1].

These requirements show that the implementation of Islamic finance cannot be reduced to launching a separate marketing product line. It involves the creation of a separate managerial, methodological, operational and accounting framework within the bank. For a bank opening an Islamic window, the following become especially important:

- segregated accounting;
- a separate product methodology;
- approval of standard contracts;
- control over compliance with Islamic financial standards;
- independent internal audit for Islamic finance;
- a three-year business plan;
- separate reporting and management monitoring.

Without digital support, meeting these requirements may become labor-intensive and costly. The 2026 legal framework therefore effectively creates demand not only for Islamic financial products, but also for the digital infrastructure required for their implementation.

3. International Experience in the Digitalization of Islamic Finance and Its Significance for Uzbekistan

International experience shows that the digitalization of Islamic finance is developing in several directions: digital Islamic banks, Islamic fintech platforms, RegTech solutions, digital Shariah compliance, sukuk tokenization, API integrations and remote channels for financial inclusion [11; 12; 16].

Malaysia is one of the most advanced centers of Islamic finance. Its experience is important for Uzbekistan for two reasons. First, Malaysia has developed a mature Shariah governance system that includes regulatory requirements, Shariah supervisory boards, internal control and audit. Second, Malaysia is actively developing digital banking and fintech regulation, including digital bank licensing and a regulatory sandbox [9; 10]. The presence of licensed Islamic digital banks shows that Islamic finance can develop not only through traditional bank branches, but also through fully digital business models.

A practically significant element of the Malaysian experience is the use of a regulatory sandbox as an instrument for controlled testing of fintech solutions. This approach can be adapted

in Uzbekistan for piloting Islamic digital products, including digital murabahah, Islamic leasing, investment deposits and RegTech modules for Shariah compliance. For the regulator, this makes it possible not to scale a new product immediately across the entire market, but first to test its legal, technological, operational and customer resilience in a limited environment.

Indonesia is of interest as a country with a large Muslim population where Islamic fintech services are regarded as an instrument of financial inclusion. For Uzbekistan, this experience is important in terms of expanding access for small businesses, self-employed individuals and the population to financial products through mobile channels, digital identification and simplified customer interfaces.

For Uzbekistan, the Indonesian experience is especially important from the perspective of financial inclusion. Islamic fintech services can be used not only as a banking product, but also as a channel for involving small businesses, self-employed persons and customers who previously did not use conventional credit instruments. In this context, digital channels should be combined with educational interfaces that explain the economic structure of an Islamic transaction and the difference between an Islamic product and an interest-bearing loan.

The United Arab Emirates demonstrates more advanced areas of digital Islamic finance, including the development of digital platforms, Islamic capital markets and tokenization experiments. For Uzbekistan, this experience should not be treated as a model for immediate replication, but it is important for the long-term stage, when the market moves from basic banking products to digital sukuk, investment platforms and more complex instruments.

Kazakhstan and the AIFC are of interest as a regional example of adapting Islamic finance within the legal and institutional environment of Central Asia. For Uzbekistan, this experience is useful in shaping a regional agenda, developing standards, training personnel and creating partnerships among Central Asian countries [7; 8; 13].

Kazakhstan's regional experience shows that the development of Islamic finance requires not only legal permission, but also institutional infrastructure: specialized platforms, training, cooperation with international organizations and the building of market participants' trust. For Uzbekistan, this means that the banking implementation of Islamic windows should be combined with the development of a center of competence and methodological support for the market.

International experience does not automatically prove that digitalization in any country reduces the time needed to implement Islamic finance by a predetermined proportion. However, it does show that digital channels, regulatory sandboxes, standardized platforms, Shariah governance and fintech ecosystems can lower access barriers, increase operational transparency and make scaling more manageable.

The following conclusions from international experience are applicable to Uzbekistan:

1. the digitalization of Islamic finance should begin not with the most complex instruments, but with products that can be standardized;

2. digital channels should be accompanied by clear customer disclosure of the structure of an Islamic transaction;

3. Shariah compliance should be embedded into the product architecture rather than performed only after the fact;

4. the regulator should define minimum requirements for the digital trail, reporting and segregated accounting in advance;

5. fintech innovation requires a regulatory sandbox and controlled piloting.

4. Digital Technologies as an Instrument for the Accelerated Implementation of Islamic Finance

Digital technologies can support the accelerated implementation of Islamic finance in Uzbekistan not because they simplify the economic nature of Islamic contracts, but because they make it possible to standardize and control recurring elements of transactions.

4.1. Islamic Core Banking and Modular Architecture

One of the main conditions for launching Islamic finance is the availability of a banking system capable of properly recording Islamic operations. Conventional core banking systems are usually designed around interest-bearing loans, deposits and standard fees. Islamic products require a different logic: accounting for the asset, stages of purchase and sale, profit distribution, agency fees, partnership participation, investment deposits, Islamic leasing and segregated accounting.

For Uzbekistan, a modular approach is the most realistic at the initial stage. It involves creating a separate digital framework for the Islamic window, integrated with the bank's existing systems: accounting, CRM, remote channels, risk systems, data warehouse and reporting.

This approach allows a bank to avoid rebuilding its entire IT infrastructure at once and to begin with a limited set of products. For example, digital murabahah for small businesses can be implemented as a module that includes the customer's application, selection of goods or supplier, customer verification, purchase confirmation, installment sale contract, payment schedule, accounting treatment and reporting.

4.2. Digital Onboarding and Mobile Channels

Islamic finance can attract customers who previously avoided conventional banking products for religious, ethical or behavioral reasons. However, to achieve this effect, it is not enough to open an Islamic window in a bank branch. Convenient access to products through digital channels is essential.

Digital onboarding allows a customer to submit an application remotely, complete identification, receive consultation, review the structure of the product, sign documents and track the stages of the transaction. This is particularly important for small businesses, as entrepreneurs need fast and understandable financing for purchases, equipment, raw materials or transport.

The customer interface of an Islamic financial product should differ from the interface of a conventional loan. It should explain:

- which asset underlies the transaction;
- what role the bank performs;
- how the bank's income is formed;
- which stages the transaction passes through;
- which risks the customer bears;
- why the product complies with Islamic financial standards.

This not only improves transparency, but also reduces the reputational risk that an Islamic product will be perceived as an ordinary loan with different terminology.

4.3. Automation of Shariah Compliance

Shariah compliance is one of the central elements of Islamic finance. In a manual model, monitoring compliance with Islamic financial standards can be slow, costly and dependent on the qualifications of individual specialists. In a digital model, Shariah compliance requirements can be embedded into the product process.

For this purpose, the digital system should include:

- a library of approved product templates;
- electronic checklists for compliance with Islamic financial standards;

• control over the sequence of transaction stages;
• a prohibition on changing key terms without renewed approval;
• verification of permissible assets and suppliers;
• automatic generation of documents;
• a user action log;
• reports for the Islamic finance council and internal audit.

This approach does not replace the Islamic finance council. The council should approve the methodology, product templates, standard contracts and control rules. However, the daily application of those rules must be embedded in the system; otherwise, scaling Islamic products will increase manual workload and operational errors.

4.4. RegTech and Dual Compliance

Banks implementing Islamic finance must comply simultaneously with banking regulation and Islamic financial standards. This creates dual compliance, a two-layer compliance framework.

RegTech solutions can automate the following processes:
• monitoring compliance with licensing requirements;
• monitoring segregated accounting;
• checking the completeness of mandatory documents;
• controlling limits on the Islamic portfolio;
• identifying operations with signs of deviation from the approved methodology;
• generating reports for the bank's management;
• preparing data for the Central Bank;
• preparing reports for the Islamic finance council and internal audit.

For Uzbekistan, dual compliance is especially important because Islamic banking activities will develop within the existing banking system. If Islamic windows in different banks use incomparable data and reporting, regulatory monitoring will become more difficult. It is therefore advisable to define minimum digital requirements for the data structure of Islamic financial operations at the initial stage.

4.5. Artificial Intelligence and Data Analytics

Artificial intelligence and machine learning can be used in Islamic finance for customer scoring, cash-flow analysis, fraud detection, business resilience assessment, delinquency forecasting and risk monitoring.

At the same time, the use of AI and machine learning must be cautious. Islamic finance is based on the principles of fairness, transparency and trust. Scoring models should therefore be explainable, auditable and non-discriminatory. A bank should not use a black-box model in products where the customer needs to understand the terms of the transaction and the grounds for the decision.

For small businesses, the use of alternative data is a promising direction: account turnover, tax reporting, electronic invoices, payment history, industry indicators, marketplace data and cash-register transactions. This can improve access to finance for customers who do not have a sufficient credit history.

In partnership-based products such as musharakah and mudarabah, data analytics can be used not only before financing, but also after financing - to monitor revenue, expenses, profit, business-plan implementation and signs of project deterioration.

4.6. API Ecosystem and Integration with External Platforms

Islamic finance is closely linked to the real economy because many operations are based on a commodity, asset, lease, delivery or investment project. Therefore, integration between banks and

external platforms is especially important: suppliers of goods, marketplaces, government registries, tax systems, payment infrastructure, insurance and logistics services.

API integrations allow a bank to verify the customer faster, confirm the supplier, obtain data on the asset, generate the contract, make the payment, track the transfer of the goods and monitor transaction execution. For example, in digital murabahah, the customer can select goods from a verified supplier, the bank confirms the purchase, the system generates an installment sale agreement, and the accounting module automatically records the operation within the separate Islamic accounting framework.

This model reduces operational risk and increases transaction transparency.

4.7. Blockchain and Smart Contracts: Long-Term Potential

Blockchain and smart contracts are often considered promising technologies for Islamic finance because they can enhance transaction transparency, preserve a digital trail of operations and automate the execution of contractual terms. The most promising areas of application are digital sukuk, trade finance, asset tokenization and supply-chain control.

However, for Uzbekistan, blockchain should not be regarded as a primary condition for launching Islamic finance in 2026-2027. At the initial stage, priority should be given to more fundamental tasks: segregated accounting, Islamic Core modules, digital Shariah compliance, RegTech reporting, customer disclosure and integration with banking systems.

The most realistic long-term points of application for blockchain technologies in Uzbekistan may include maintaining a digital registry of rights to certain assets used in Islamic transactions; improving supply-chain transparency in trade finance; issuing digital sukuk where an appropriate legal framework exists; and automating individual contractual terms through smart contracts. Such solutions, however, should be introduced only after the basic infrastructure of Islamic banking has been established, including segregated accounting, Shariah compliance, internal audit and regulatory reporting.

Blockchain solutions should therefore be considered at a later stage, after a stable legal, technological and product base has been formed. In that case, they may be used for developing digital sukuk, investment platforms and regional integration.

5. Comparing the Traditional and Digital Pathways for Implementing Islamic Finance

The traditional pathway for implementing Islamic finance involves the sequential formation of legislation, product methodology, human resources, contracts, accounting, control and IT infrastructure. This approach ensures caution, but it can be lengthy and costly.

The digital pathway involves the parallel development of methodology, product templates, an IT module, reporting and control procedures. It does not remove the need for legal and Shariah review, but it allows standardized solutions to be replicated more quickly.

Table 1. Comparison of the traditional and digital pathways for implementing Islamic finance

Criterion	Traditional pathway	Digital pathway
Product launch	Sequential manual development of processes	Parallel development of methodology, IT module and reporting
Shariah compliance	Predominantly manual review	Embedded control rules and a digital audit trail
Segregated accounting	Configured after product launch	Designed from day one
Customer access	Through branches and	Through mobile and

Criterion	Traditional pathway	Digital pathway
	individual specialists	remote channels
Scaling	Depends on each bank's preparedness	Possibility of replicating a standard module
Risk management	Ex post control	Monitoring and alerts during the process
Regulatory reporting	Manual consolidation	Standardized digital data
Transparency for the customer	Depends on explanations by an employee	Embedded disclosure of the transaction structure

For Uzbekistan, the digital pathway is preferable not because it is simpler, but because it allows Islamic finance to be built from the outset on standardized and controllable infrastructure.

6. Barriers and Risks of Digitalizing Islamic Finance in Uzbekistan

Despite the significant potential of digital technologies, their application in Islamic finance is associated with a number of barriers.

6.1. Technological Barriers

The main technological barrier is the limited readiness of existing core banking systems for Islamic financial operations. Many banking systems are built around interest-bearing loans, deposits and standard fees. Islamic products require accounting for the asset, the stages of the transaction, profit distribution, agency relationships, partnership participation, investment deposits and Islamic leasing.

The second barrier is the high cost of specialized solutions. For banks that are only testing demand for Islamic products, introducing a full-scale Islamic Core Banking system may be economically difficult. A modular approach is therefore advisable at the first stage.

The third barrier is data quality. Complete and structured data are required to automate scoring, accounting, reporting and monitoring. If information on customers, contracts, assets, suppliers and payments is stored in different systems, digitalization may complicate the process rather than accelerate it.

6.2. Human Capital Barriers

Islamic finance requires specialists with multiple competencies: banking, Islamic financial standards, risk management, accounting, law and digital technology. At the initial stage, such specialists will be in short supply.

Banks need to train not only employees of the Islamic window, but also risk managers, accountants, lawyers, compliance officers, internal auditors, IT teams and customer-facing staff. Without such training, a digital system may be formally introduced but used incorrectly.

6.3. Regulatory and Methodological Barriers

The law creates a basic legal framework, but full implementation will require by-laws, standards, clarifications and methodological documents. Issues of accounting, tax treatment, reporting, Shariah compliance, internal audit, disclosure and risk management are especially important.

For digital implementation, it is also necessary to define requirements for the digital trail of operations, electronic documents, automated checks, data storage and reporting on Islamic products.

6.4. Risk of Non-Compliance with Islamic Financial Standards

The risk of non-compliance with Islamic financial standards is one of the most sensitive issues. An error in the contract structure, transaction sequence, disclosure of terms or distribution of income may result in financial losses and reputational damage.

For a new market, this risk is particularly significant. If the first Islamic products are perceived by customers as conventional loans with altered terminology, trust in the segment may weaken. Digital products must therefore be not only convenient, but also explainable, transparent and methodologically sound.

6.5. Cyber Risks and Data Protection

Digitalization increases dependence on information systems, mobile channels, API integrations and external providers. This creates risks of data leakage, unauthorized access, document substitution, fraudulent applications, attacks on APIs and failures in transaction processing.

Islamic digital products must be included in the bank's overall framework for cybersecurity, operational risk management, personal data protection, backup arrangements and incident monitoring.

6.6. Risk of Market Fragmentation

If each bank creates an Islamic window on its own platform, with different data structures, different reporting and different approaches to digital Shariah compliance, the market may become fragmented. This will increase costs, complicate supervision and reduce product comparability.

To minimize this risk, it is necessary to define minimum unified requirements for digital data, reporting, segregated accounting, disclosure and transaction logging.

7. SWOT Analysis of the Digitalization of Islamic Finance in Uzbekistan

Table 2. SWOT analysis: strengths and weaknesses

Strengths	Weaknesses
A new legal framework for Islamic banking activities	Limited practical experience of banks with Islamic products
Development of digital financial infrastructure	Dependence on existing core banking systems
Possibility of launching Islamic windows through modular solutions	Shortage of personnel with dual expertise
Support for the fintech agenda at the level of the Central Bank	Need for detailed by-law regulation
Potential to attract new customers and investment	Risk of weak customer understanding of products

Table 3. SWOT analysis: opportunities and threats

Opportunities	Threats
Launch of standardizable products: murabahah, ijarah, investment deposits	Reputational losses in the event of Shariah compliance errors
Expansion of financial inclusion for the population and SMEs	Cyber risks and data leaks
Creation of a unified digital methodology for Islamic windows	Fragmentation of platforms and standards
Integration with government registries and the fintech ecosystem	Formal copying of conventional credit products

Opportunities	Threats
Prospects for digital sukuk and regional integration	Insufficient preparedness of staff and customers

The SWOT analysis shows that the main task is not only to launch Islamic products, but also to create a manageable digital architecture. If implementation is uncoordinated, digitalization may intensify fragmentation. With a systemic approach, however, it may become one of the factors supporting the sustainable development of the market.

8. Roadmap for the Digital Implementation of Islamic Finance in 2026-2030

8.1. Stage 2026-2027: Fast Start

The purpose of this stage is to launch the first Islamic financial products in pilot banks on the basis of a controlled digital architecture.

Table 4. Roadmap for the 2026-2027 stage

Area	Key actions	Success conditions	Main risks
Regulatory framework	Develop by-law requirements for Islamic windows, accounting and reporting	Coordination among the Central Bank, the Council on Islamic Finance and banks	Delay in methodological documents
Minimum Central Bank requirements	By the end of 2026, develop draft minimum requirements for the digital module of an Islamic window, including segregated accounting, digital audit trail, product templates, reporting and Shariah compliance control points	Coordination among the Central Bank, the Council on Islamic Finance, commercial banks and IT providers	Delay in by-law regulation and inconsistent interpretation of requirements by banks
Digital module	Create a minimum Islamic module for pilot products	Integration with core banking and accounting	System incompatibility
Pilot product	In 2026-2027, launch a pilot digital murabahah product for small businesses in one or more banks	Availability of a standard contract, a tested purchase-and-sale process for goods and a separate accounting framework	Errors in transaction structure and incorrect customer perception of the product
Products	Launch digital murabahah, ijarah and	Ease of standardization and	Errors in product structure

Area	Key actions	Success conditions	Main risks
	investment deposits	clarity for the customer	
Shariah compliance	Introduce digital checklists and product templates	Approval of methodology by the Islamic finance council	Formal control without substantive content
Customer disclosure	Before launching pilot products, develop a unified minimum disclosure standard for Islamic digital products	Simple interfaces, calculators, FAQs and explanations of transaction structure	Reputational risk if the product is perceived as an ordinary loan
Human resources	Train bank employees	Practical training program	Shortage of specialists
Customers	Launch educational digital materials	Simple explanation of the differences between an Islamic product and a conventional one	Distrust or misunderstanding

At this stage, the priority should not be complex investment instruments, but basic products that can be standardized and controlled. The most suitable first products are digital murabahah for small businesses, Islamic leasing with a purchase option and investment deposits on a profit-sharing basis.

8.2. Stage 2028-2029: Scaling

The purpose of this stage is to move from pilots to the expansion of Islamic financial products across several banks.

Table 5. Roadmap for the 2028-2029 stage

Area	Key actions	Success conditions	Main risks
Product line	Expand products for SMEs and corporate clients	Tested methodology from the pilot stage	Overly rapid product complexity
RegTech	Introduce standardized digital reporting	Unified data structure	Incomparable bank reports
Integrations	Connect to government registries, tax data and suppliers	Availability of APIs and a legal basis for data exchange	Low data quality
Risk management	Monitor portfolio, arrears, concentrations and profitability	Configured analytical dashboards	Underestimation of specific risks
Internal audit	Verify the digital trail of Islamic	Independence and competence of audit	Formalistic audit

Area	Key actions	Success conditions	Main risks
	operations		
Customer base	Scale through mobile channels	Growing trust and understanding of products	Reputational risks

At this stage, it is especially important to avoid market fragmentation. It is advisable to introduce minimum unified data and reporting standards for Islamic operations.

8.3. Stage 2030: Digital Islamic Finance Ecosystem

The purpose of this stage is to create a full-fledged digital Islamic finance ecosystem that goes beyond individual banking products.

Table 6. Roadmap for the 2030 stage

Area	Key actions	Success conditions	Main risks
Ecosystem	Integrate banks, fintech companies, suppliers and government registries	Unified API standards	Fragmentation of participants
Digital sukuk	Prepare the legal and technological basis	Development of the capital market	Insufficient investor demand
Regional integration	Partnership with Central Asian markets	Alignment of standards	Differences in legal regimes
Systemic risk analytics	Monitor the Islamic financial segment at the system level	Bank data in a unified format	Incomplete statistics
Center of competence	Create a national knowledge platform	Participation of the Central Bank, banks, universities and international partners	Shortage of experts

By 2030, Islamic finance in Uzbekistan may move from a model of individual Islamic windows to a digital ecosystem that includes banking products, fintech services, investment instruments, educational platforms and regional cooperation.

To assess the effectiveness of the roadmap, measurable indicators should be used: the number of banks that have obtained licenses for Islamic banking activities; the number of digital Islamic products launched; the share of operations passing through a digital framework with an automated Shariah checklist; the existence of segregated accounting for Islamic operations; the number of employees trained; the level of customer understanding of Islamic products based on surveys; and the number of identified and eliminated Shariah or regulatory compliance violations.

9. Prioritized Practical Recommendations

9.1. For the Central Bank

For the Central Bank, the primary task is to develop draft minimum requirements for a digital Islamic window by the end of 2026. Such a document should define requirements for segregated accounting, the digital audit trail of operations, data structure, product templates, automated control procedures, reporting, internal audit and interaction with Islamic finance councils.

The second priority is to launch a regulatory sandbox for Islamic fintech products. Within such a sandbox, it would be advisable to test digital murabahah, Islamic leasing, investment deposits and RegTech solutions for dual compliance.

The third priority is to develop a standardized reporting form for Islamic financial operations. This would ensure data comparability across banks, reduce the risk of fragmentation and improve supervisory effectiveness.

9.2. For Commercial Banks

Commercial banks should begin not with a broad product range, but with a limited set of products that can be standardized. The most suitable products for the first stage are murabahah, ijarah, wakalah and investment deposits.

Banks need to ensure segregated accounting from the first day of launching an Islamic window. This requirement should be not only organizational, but also technological.

It is also important to embed Shariah control points into the digital product process in advance. If a product is first launched manually and automation is postponed, later scaling may increase operational and reputational risks.

9.3. For Fintech Companies

Fintech companies can participate in the development of Islamic finance by creating modules for digital murabahah, ijarah, investment deposits, digital Shariah compliance, API integrations and risk analytics.

Solutions that do not compete with banks but help them implement Islamic products faster are especially promising: reporting modules, customer interfaces, digital checklists, supplier integrations and educational services.

9.4. For the Academic and Educational Community

It is necessary to develop interdisciplinary programs in Islamic finance, the digital economy, banking risk management and fintech. Human capital development should be practical: specialists must understand not only Islamic financial principles, but also their implementation in banking systems, accounting, contracts, risks and digital channels.

Important areas of research include assessing demand among the population and businesses for Islamic financial products, analyzing the readiness of banking infrastructure and studying international experience in digital Islamic banking.

Conclusion

Uzbekistan is at an important stage in the formation of a new segment of the banking market: Islamic finance. The adoption of Law No. ZRU-1126 and the strategic priorities through 2030 create the legal and institutional preconditions for launching Islamic banking activities. However, successful implementation of Islamic finance requires not only regulatory permission, but also the readiness of banking systems, human resources, accounting, controls, customer channels and risk management.

Digital technologies can become a catalyst for this process. Their role is not to simplify Islamic financial principles, but to create infrastructure that allows those principles to be applied in a mass banking process. Islamic Core modules, digital onboarding, automated Shariah compliance, RegTech reporting, data analytics and API integrations can reduce operating costs, increase transparency, expand customer outreach and ensure the manageability of Islamic windows.

The main conclusion of the study is that digitalization should be regarded not as a subsequent stage after the launch of Islamic finance, but as a basic condition for its sustainable implementation. If Islamic products are launched primarily through manual procedures, banks will face high operating costs, risks of error, difficulties in segregated accounting and limited scalability. If digital requirements are embedded from the first stage, Uzbekistan can benefit from the latecomer effect, since the formation of Islamic finance is taking place during a period of already developing digital banking infrastructure.

The proposed roadmap consists of three stages: a fast start in 2026-2027, scaling in 2028-2029 and the formation of a digital ecosystem by 2030. At the first stage, the priorities should be basic Islamic products, segregated accounting, digital templates and Shariah compliance. At the second stage, the priorities should be RegTech reporting, integration with government systems and expansion of the product line. At the third stage, the priorities should be digital sukuk, regional integration and the creation of a full-fledged Islamic fintech ecosystem.

Thus, digital technologies can become an important factor in the successful implementation of Islamic finance in Uzbekistan's banking sector. Their practical value lies in the ability to embed the requirements of Islamic financial standards, segregated accounting, risk management and regulatory reporting into banking processes in advance. Through coordinated action by the Central Bank, commercial banks, fintech companies, educational institutions and international partners, Uzbekistan can develop a modern digital model of Islamic finance adapted to national conditions and the prospects of regional development.

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