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ARTICLE REVIEW

PROSPECTS FOR THE USE OF BLOCKCHAIN TECHNOLOGIES IN ATTRACTING ISLAMIC FINANCE TO THE REGION

PERSPECTIVAS PARA O USO DE TECNOLOGIAS DE BLOCKCHAIN PARA ATRAIR FINANÇAS ISLÂMICAS PARA A REGIÃO

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ABSTRACT

Objective: This study seeks to substantiate the prospects for using blockchain technologies as a mechanism to attract Islamic finance to the Russian regions, with the dual aim of mitigating sanctions-related restrictions and fostering integration into global Islamic financial ecosystems.

Methodology/Approach: The research employs econometric and systems analysis to assess the macroeconomic externalities of blockchain-driven Islamic finance inflows. A methodological toolkit was developed and tested to estimate potential market capacity, using data from four Russian regions (Tatarstan, Bashkortostan, Chechnya, Dagestan) through 2030. The approach incorporates substitution modeling of lost Western capital, scenario analysis, and the application of blockchain-based financial gateways.

Originality/Relevance: The originality of this work lies in linking two underexplored areas—Islamic finance and blockchain technologies—in the context of Russia's geoeconomic reorientation toward Asia and the Global South. The study provides an innovative framework for replacing Western capital flows with investments from Islamic finance markets through decentralized fintech solutions.

Main Conclusion: Findings demonstrate that the use of blockchain-based financial mechanisms can significantly expand the capacity of Russian regions to attract Islamic finance. Tatarstan and Bashkortostan show the highest potential, while Chechnya and Dagestan present smaller but strategically relevant capacities. Blockchain solutions are positioned as a breakthrough tool for overcoming international financial isolation and enabling long-term convergence with Islamic digital ecosystems.

Theoretical/Methodological Contribution: The study advances the methodological basis for assessing fintech's role in regional investment attraction by introducing a quantitative model that integrates substitution coefficients, market capitalization ratios, and penetration indices. It enriches the theoretical discourse on blockchain's economic externalities and provides policymakers and practitioners with actionable instruments for embedding Islamic finance within regional development strategies.

Keywords: Islamic finance, Fintech, Regional economic systems, Sanctions restrictions, Investment activity, Capital flow

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RESUMO

Objetivo: Este estudo busca fundamentar as perspectivas do uso de tecnologias blockchain como mecanismo para atrair finanças islâmicas para as regiões russas, com o duplo objetivo de mitigar restrições relacionadas a sanções e promover a integração aos ecossistemas financeiros islâmicos globais.

Metodologia/Abordagem: A pesquisa utiliza análise econométrica e de sistemas para avaliar as externalidades macroeconômicas dos fluxos de financiamento islâmico impulsionados por blockchain. Um conjunto de ferramentas metodológicas foi desenvolvido e testado para estimar a capacidade potencial de mercado, utilizando dados de quatro regiões russas (Tartaristão, Bascortostão, Chechênia e Daguestão) até 2030. A abordagem incorpora modelagem de substituição de capital ocidental perdido, análise de cenários e a aplicação de gateways financeiros baseados em blockchain.

Originalidade/Relevância: A originalidade deste trabalho reside na conexão de duas áreas pouco exploradas — finanças islâmicas e tecnologias blockchain — no contexto da reorientação geoeconômica da Rússia em direção à Ásia e ao Sul Global. O estudo fornece uma estrutura inovadora para a substituição de fluxos de capital ocidentais por investimentos de mercados financeiros islâmicos por meio de soluções de fintech descentralizadas.

Conclusão Principal: Os resultados demonstram que o uso de mecanismos financeiros baseados em blockchain pode expandir significativamente a capacidade das regiões russas de atrair financiamento islâmico. Tartaristão e Bascortostão apresentam o maior potencial, enquanto Chechênia e Daguestão apresentam capacidades menores, mas estrategicamente relevantes. As soluções de blockchain se posicionam como uma ferramenta inovadora para superar o isolamento financeiro internacional e permitir a convergência de longo prazo com os ecossistemas digitais islâmicos.

Contribuição Teórica/Metodológica: O estudo avança a base metodológica para avaliar o papel das fintechs na atração de investimentos regionais, introduzindo um modelo quantitativo que integra coeficientes de substituição, índices de capitalização de mercado e índices de penetração. Ele enriquece o discurso teórico sobre as externalidades econômicas do blockchain e fornece aos formuladores de políticas e profissionais instrumentos acionáveis para incorporar o financiamento islâmico às estratégias de desenvolvimento regional.

Palavras-chave: Finanças islâmicas, Fintech, Sistemas econômicos regionais, Restrições de sanções, Atividade de investimento, Fluxo de capital

1. INTRODUCTION

In the context of large-scale digital transformation driven by the global economy's transition to the sixth technological paradigm and dynamically progressing systemic changes in the geoeconomic agenda and scientific-technological development, key frontiers of national economic growth are increasingly defined by the adaptation of economic processes to the new institutional landscape (Abdullayev et al., 2025; Arynova et al., 2025). One such frontier, actively integrating into the system of economic relations, is fintech solutions, which lay the foundation for optimizing and reconfiguring business processes. Among the most in-demand fintech mechanisms today are blockchain technologies. For example, according to (Martinez et al., 2020) in 2023, about 70% of large foreign economic enterprises in China utilized blockchain. It is expected that by 2025, blockchain will become the standard for managing supply chains in China's export sector.

In Russia, as in the broader global context of blockchain development and the deployment of blockchain-based digital financial instruments, significant progress has been made in recent years in regulating and integrating these technological solutions into economic systems (Nagumanova et al., 2025). A vivid demonstration of the unfolding developments in this sphere is the fact that in 2024, Russian President signed a law legalizing cryptocurrency mining. As of September 1, foreign trade settlements in cryptocurrency are permitted under an experimental framework (Federal Law No. 221-FZ, 2024; Sharifullin, 2025).

Furthermore, the Russian business community acknowledges the need to establish cross-border payment mechanisms amid sanctions-related constraints. As noted in the explanatory note to draft law No. 540256-8 "On Amendments to the Federal Law on Digital Financial Assets and Digital Currency," traditional interbank settlement channels in the currencies of unfriendly countries have become unreliable under foreign policy pressure, increasing the risk of asset freezes. This situation necessitates a shift to new mechanisms for international settlements.

A significant impetus for integrating the Russian economy into global digital transformation processes was the adoption of Federal Law No. 259 in 2020 regulating the use of digital financial assets (DFAs) in business operations. These DFAs are created and function on the basis of blockchain, enabling automation of transaction execution and the removal of numerous intermediaries and bureaucratic layers.

These factors highlight the need to explore the macroeconomic externalities emerging within the evolving fintech landscape. This issue is of particular interest in assessing the prospects for investment capital inflow into Russia's national and regional economies through the use of blockchain solutions, which help mitigate sanctions-related restrictions on access to global clearing systems. Taking this into account, this study attempts to justify the potential of using blockchain-based digital financial instruments for organizing the attraction of Islamic finance into Russia's regional economies.

This research focus is driven by three main reasons. First, the Islamic finance market is currently experiencing active growth, with annual increases exceeding 10% . The total market capitalization of Islamic finance is estimated to reach $4.6 trillion in 20245. Second, the Islamic finance industry has shown considerable interest in the Russian market; however, under the pressure of sanctions, including restricted access of Russian financial institutions to systems such as SWIFT, there has been a curtailment of transnational investment capital flows, even from friendly countries. Third, in 2023, Russia launched a federal pilot program on Islamic financing in four regions: the Republic of Tatarstan, the Republic of Bashkortostan, the Chechen Republic, and the Republic of Dagestan. This development signals increased state attention to the growth of the Islamic finance industry in Russia and its integration into global Islamic markets.

Considering the high level of fintech advancement in Islamic countries based on digital solutions, the proposed mechanism for attracting foreign investment capital to Russia offers significant potential for the convergence of Russia's financial markets with those of countries possessing a developed Islamic finance industry.

2. LITERATURE REVIEW

Issues of attracting foreign investments (real, financial, and others) are a priority in the implementation of state policy. In a concentrated form, investment activity depends on two system-forming parameters:

- the investment attractiveness of the region;
- the availability of technical channels for organizing financial transactions under conditions of external restrictions, technological transformations, and sanction pressure.

Regarding the first factor, it can be stated that the issue is well-developed, revealing the specifics of forming and assessing investment attractiveness. Numerous works by both Russian and foreign researchers are devoted to these issues (Beilin, 2024; Chodorow-Reich et al., 2012; Fedorova et al., 2016; Mehta et al., 2023; Yeremin, 2016). These theoretical aspects have been thoroughly studied by various schools of economic thought (classical and neoclassical schools (Mill, 1848), Keynesian and neo-Keynesian directions (Klimova, 2017), monetarist theory (Friedman, 1996), etc.).

Meanwhile, issues that reveal the specifics of organizing channels for conducting financial and investment transactions under external constraints, as well as in the context of dynamic progress in the fintech field, require thorough elaboration.

The methodological toolkit used to assess the impact of fintech on the prospects of intensifying financial relations and the resulting macroeconomic dynamics has not yet become widespread in the realm of scientific research. This is largely due to the fact that fintech, being a relatively new area in the theory and practice of economic thought, requires comprehensive, multi-vector analysis. And given the dynamism in the production of new financial products with a high level of technological sophistication, the methodological toolkit must also dynamically adapt to ongoing changes.

Despite the identified theoretical gaps in the context of methodological developments for empirical assessment of the impact of fintech on the development of economic systems and the intensification of investment processes and capital flows, it should be noted that such issues do find partial reflection in the scientific literature. This kind of problematics can be found in the works of both Russian and foreign scientists and experts. In a systematized format, some of these works, reflecting the generally established course in this field, are presented in Table 1.

No.	Author	Impact of Fintech on Economic System Development
1	Pavlov (2023)	"Modern fintech largely removes from the value creation and interaction chains many tasks that were previously performed solely by individuals. Investment platforms operating on modern fintech solutions eliminate various intermediaries, reducing investment costs and minimizing the influence of the human factor." (Campanella et al., 2023)
2	Krinichansky and Annenskaya (2022)	The Internet, smartphones, big data, and neural networks—core technologies of financial accessibility—presumably also help mitigate the negative effects of financial deepening, allowing for a better allocation effect in transforming savings into investments.
3	Campanella et al. (2023)	The emergence and expansion of fintech should be seen as a logical result of the failures of financial development in past decades and as a response to the demand for more efficient institutions and mechanisms of economic interaction in the financial sector.
4	Yao et al. (2021)	Modern fintech is transforming the financial sector, creating a foundation for stronger and more efficient financial development, which in turn generates numerous secondary positive effects for the economy.

Table 1. Approaches of Russian and foreign researchers in assessing the impact of fintech on the development of economic systems
Source: developed by the authors based on the systematization of approaches of Russian and foreign researchers.

The presented approaches reveal the essence and content of fintech's role in generating economic externalities at the current stage of global economic development, depending on the target of influence and the functional orientation of fintech solutions. In a concentrated form, aligning with the views of Belova and Rizvanova (2024), Krinichansky and Zeleneva (2024), it must be stated that innovative financial technologies play one of the key roles in intensifying economic development amid the global digital transformation progressing during the era of the sixth technological paradigm.

At the same time, it should be noted that despite these rather evident conclusions, issues related to the empirical assessment of the discussed externalities still require further methodological development.

Considering the subject of this study, the following section undertakes an attempt to develop and test a methodological toolkit that allows for the implementation of empirical assessments of the impact of fintech, in the form of blockchain, on processes stimulating the inflow of Islamic finance into Russian regions as investment resources.

The degree of integration of Islamic financial products into national financial markets will largely determine not only the prospects and parameters of attracting foreign investments within the newly emerging configuration of the geopolitical agenda—characterized by a shift of focus toward Asian countries – but also the foundation for intensifying economic development of the national economy as a whole.

3. METHODOLOGY

Focusing on the subject of this study, the key task is the development of a methodological framework that enables the assessment of the impact of blockchain on the formation of a new organizational and technological environment. This environment should provide the means to determine both the current and projected market capacity of Russian regions in the context of the potential volume of attracted financial and investment resources, in accordance with the principles of Islamic finance.

This task is multi-scenario in nature. Essentially, it can be argued that this capacity can be estimated based on the assessment of the substitution of foreign capital inflows from Western coalition countries, through its geographical reorientation toward countries in Asia, the Middle East, North Africa, and other jurisdictions whose financial markets operate under the principles of Islamic finance. In other words, a hypothesis may be proposed that under the sanction pressures of 2022–2025, Western investments could be replaced by investments from Islamic countries.

At the same time, the following assumptions must be taken into account:

Assumption 1: The realization of this scenario is possible only under the condition of creating special financial gateways independent of global clearing regulators, allowing for the unimpeded movement of international capital.

Assumption 2: The replacement of Western investments by Islamic ones cannot occur in full in the short term. This is due to several factors, including:

a) The time factor, which implies a low probability of the immediate substitution of Western investments in Russia's national economy by investments from Islamic financial systems;

b) The capitalization factor, where the market capitalization of Islamic finance is significantly lower than that of traditional financial markets, which are concentrated in Western countries. As shown in Figure 1, the total market capitalization of the Western coalition countries (actively involved in sanctioning Russia's national economy) amounts to USD 91 trillion, which is more than 18 times higher than the capitalization of Islamic financial markets.

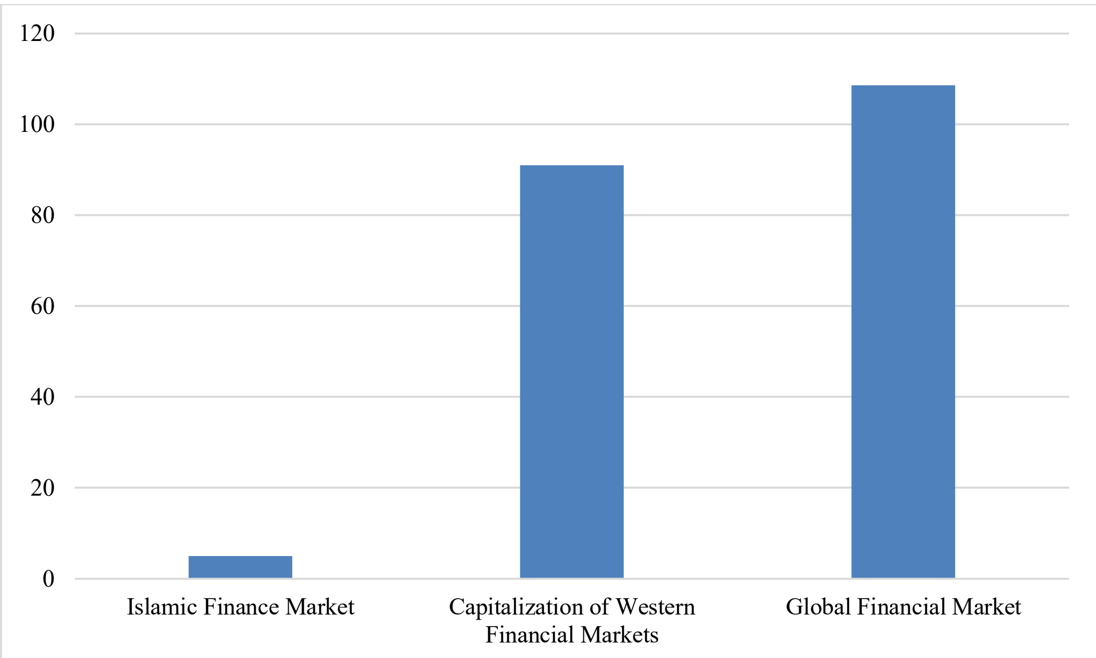


Figure 1. Comparison of the traditional global financial capital market with the capitalization of Islamic finance

Taking into account the aspects presented above, it is important to note that the mitigation of risks associated with the first assumption can be addressed within the framework of the organizational and economic mechanism for the movement of transnational capital based on blockchain principles, as developed in this study (Figure 2).

A key element of the proposed organizational and economic algorithm is the creation of a regional operator that acts as a linking agent between regional economic entities and external Islamic financial resources, based on DeFi blockchain mechanisms. In a condensed form, the functionality of this regional operator—supporting the process of attracting partnership-based financing via blockchain and Web 3.0—will include the following:

development of an application on friendly blockchain platforms that enables the creation of digital financial assets (tokens);

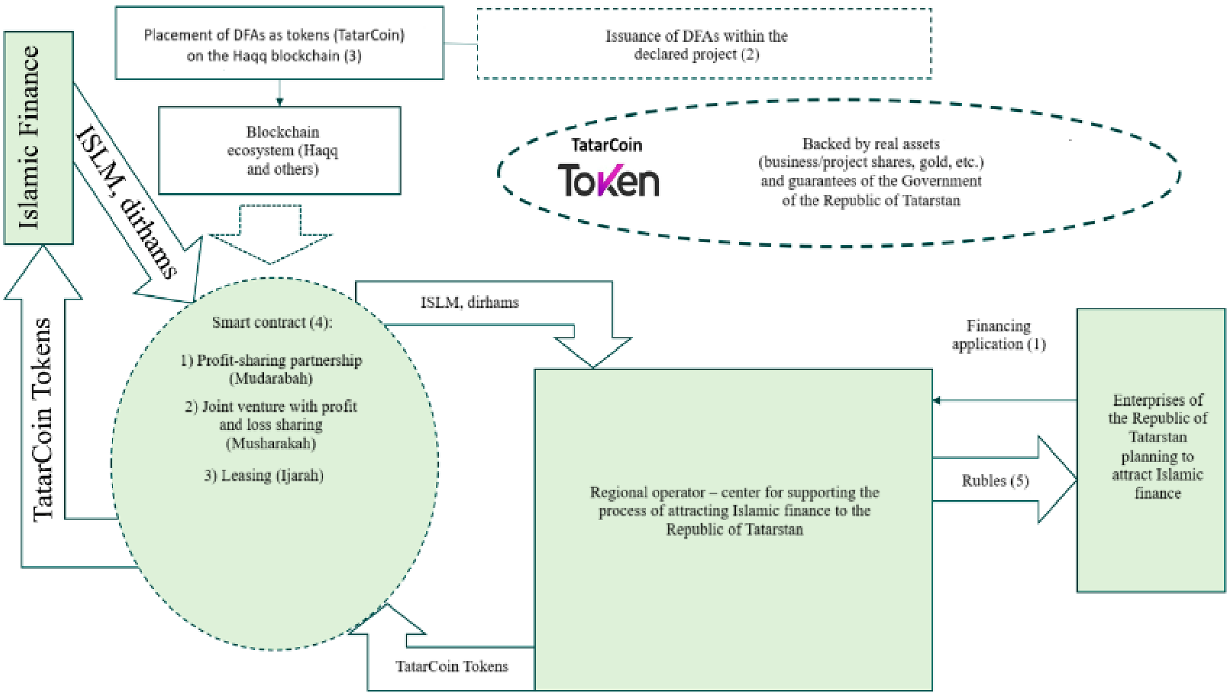
issuance of regional tokens as digital financial assets (DFAs) within blockchain ecosystems;

collection of applications from regional economic agents for partnership-based financing;

coordination and support of the partnership-based financing process;

synchronization of blockchain protocols used in friendly blockchain platforms and systems involved in the issuance of DFAs regulated by the Central Bank of the Russian Federation.

As for the second assumption, it requires the development of substantiated hypotheses that would allow for a quantitative expression of the principle of substituting traditional Western capital with Islamic finance and investment. In a condensed form, the process of potential investment capital flow from Islamic economies can be represented as a sequence of iterative actions (Figure 3)



* Islamic Coin (ISLM) - an ethical cryptocurrency for investments, payments, and transfers

Figure 2. An algorithm for attracting Islamic finance as an investment in the economy of the Republic of Tatarstan

Source: developed by the authors

<table>
<tr><td colspan="2">Determining the Capacity of the Regional Islamic Finance Market within the Concept of Replacing Western Capital through the Inflow of Foreign Partnership-Based Investments</td></tr>
<tr><td colspan="2">Step 1. Assess the “lost” foreign capital in the region by determining the difference between the volume of foreign investments in the region in 2021 and the current investment levels within the regional economic system.
This forms the basis for defining the regional Islamic finance market capacity (inflow)</td></tr>
<tr><td colspan="2">Step 2. Assume that the "lost" foreign capital can be replaced by the Islamic finance industry through blockchain-based investment mechanisms</td></tr>
<tr><td colspan="2">Step 3. Adjust the potential capacity of the regional Islamic finance market</td></tr>
<tr><td>3.1 Evaluate the ratio of Western financial market capitalization to the capitalization of Islamic financial markets (define the substitution potential coefficient):
S=КзКиS = \frac{Кз}{Ки}S=КиКз
where:
• S – substitution potential coefficient of Western foreign capital in the region by the Islamic financial market;
• Кз – capitalization of the Western financial market;
• Ки – capitalization of the Islamic financial market.</td><td>3.2 Take into account the time factor, adjusting the capacity of the regional Islamic finance market based on the current and projected growth rates of the global Islamic finance industry and the speed of its penetration into the region.</td></tr>
<tr><td colspan="2">Step 4. Estimate the potential capacity of the regional market for attracted Islamic finance:
Et=Kvt·St·ΔIt·ΔPtE_t = Kv_t \cdot S_t \cdot ΔI_t \cdot ΔP_tEt=Kvt·St·ΔIt·ΔPt
where:
• E_t – estimated value of the inflow capacity of Islamic finance into the region in period t, in USD billions;
• Kv_t – base value of the regional Islamic finance market (inflow) before adjustment for time and the scale of the global Islamic finance industry in period t, USD billions;
• S_t – substitution potential coefficient in period t;
• ΔI_t – current and projected growth of the global Islamic finance market in period t, %;
• ΔP_t – index of Islamic finance industry penetration into the region in period t, %;
• Ifintech – index assessing the level of the region's integration into global fintech ecosystems (baseline scenario: Ifintech for region type 1, optimistic scenario: Ifintech for region type 2).</td></tr>
</table>

Figure 3. An iterative sequence of assessing the market capacity of the influx of Islamic finance into the region
Source: developed by the authors.

The calculated value of the regional Islamic finance inflow market capacity (E_t), obtained through the proposed methodological toolkit, serves as the starting point for all subsequent iterative steps aimed at the empirical assessment of macroeconomic prospects for opening financial gateways to Islamic capital in Russian regions via advanced fintech solutions built on blockchain technology.

Overall, the presented approach to developing a methodological framework for evaluating the impact of foreign investment inflows in the form of partnership-based finance does not claim to be a universal standard. Rather, it represents an attempt to offer a conceptual approach to empirical evaluation through the lens of a series of logically interconnected externalities, which are, among other things, grounded in the practical application of blockchain ecosystems in transnational financial transactions.

4. RESULTS

Following the methodological solutions presented above, the subsequent section outlines the key characteristics of investment flow dynamics for the following regions of the Russian Federation: the Republic of Tatarstan, the Republic of Bashkortostan, the Chechen Republic, and the Republic of Dagestan. The selection of these regions is determined by the logic of their ethnic composition, characterized by a predominantly Muslim population. Furthermore, these regions are participating in the federal pilot program for the development of Islamic finance.

Given the limited availability of disaggregated statistical data from Rosstat for the period 2022–2024, the figures reflecting foreign investment volumes for this timeframe across the selected regional group were obtained from analytical reports and official public statements by executive authorities of the respective Russian regions.

Table 2 presents the information regarding the studied indicators.

Region	2021	2023	Volume of "Lost" Foreign Capital
Republic of Tatarstan	388.0	67.0	321.0
Republic of Bashkortostan	524.0	90.5*	433.5
Chechen Republic	18.0	3.1*	14.9
Republic of Dagestan	1.0	0.1*	0.9

* Estimated values calculated based on proportional adjustment of 2021 data, taking into account the decline in foreign investments in the Republic of Tatarstan

Table 2. Foreign direct investment in the regions of the Russian Federation, million US dollars
Source: developed by the author according to Rosstat and other sources (Official portal of the Republic of Bashkortostan, n.d.; TatCenter, 2024).

Before proceeding to the assessment of the potential capacity of the Islamic finance inflow market in the region, within the framework of the methodological approach proposed above (Figure 3), it is important to note that the obtained estimates regarding the volume of "lost" foreign capital in the studied regions of the Russian Federation are of an indicative nature. This is due to the fact that the flow of foreign capital into regions in the form of direct investment is subject to significant fluctuations over time and does not exhibit relatively static stability. Nevertheless, the calculated benchmarks may be used as a basis for the implementation of subsequent iterative steps.

Following the developed methodological framework, in order to assess the potential capacity of the regional Islamic finance inflow market, an intermediate step is required — determining the ratio of the capitalization of Western financial markets to that of Islamic financial capital. This methodological step is necessitated by the need to account for the scale effect. According to this logic, the capitalization volume of Western markets is incomparably higher than that of the Islamic finance market. This means that the partnership-based finance industry is not capable, even under the most favorable conditions, of fully replacing in the short term the Western investment capital that has exited the national economy of Russia and its regions. In this regard, it is important to understand and adequately assess the capabilities of Islamic financial markets, taking into account their actual scale.

According to the previously presented data (Figure 2), the value of the desired coefficient was 18.2 in the year 2024.

Relying on the research algorithm (Figure 3), key parameters determining the final value of the potential market capacity for attracted Islamic finance in the region include indicators signaling the projected growth rate of the global Islamic finance industry (ΔI_t), as well as the growth rate of the penetration of Islamic finance into the region (ΔP_t). Regarding the first parameter, it is defined in this study based on the analytical report "ICD – Refinitiv Islamic Finance Development Report 2022 (Islamic Corporation for the Development of the Private Sector & Refinitiv, 2022). According to the parameters presented in the document, the projected annual growth rate of the global Islamic finance market is estimated at approximately 10% through 2030. In contrast, the growth rate of the global financial market over the same period is forecasted to remain around 1.5–2% per year.

As for the second parameter, its dynamic projection should be determined through scenario analysis involving a broad set of factors influencing this process. These factors include ethnic, social, economic, political, and other dimensions. This study focuses on the most significant factors in terms of intensifying the process of attracting capital from the global Islamic finance industry to the region:

Share of capital raised under Islamic finance principles in the total investment volume in Russia (ΔРК);

Level of penetration of regional fintech solutions into the global Islamic finance ecosystem (FT);

Investment attractiveness of the region (IA).

The emphasis on these three parameters is justified by the fact that financial markets tend to function based on existing infrastructure — particularly high-tech infrastructure — both internally and externally, as well as on economic indicators such as investment margins and market growth rates.

Given that the FT parameter (penetration of regional fintech solutions into the Islamic finance ecosystem) is currently not reflected in expert or academic sources at the level of regional economic systems, its use in further calculations is not feasible. Therefore, the integrated value of the ΔPt index (the projected growth rate of Islamic finance penetration in the region) will be evaluated based on the remaining two indicators.

The characteristics of the regional factors attracting the global Islamic finance market, as included in the study, are presented in Table 3.

No.	Region	Share of Capital Raised Under Islamic Finance Principles in Russia (2024), % (ΔРК)	Investment Attractiveness / Region's Rank in the National Investment Rating, 2024
1	Republic of Tatarstan	84	4
2	Republic of Bashkortostan	2	35
3	Chechen Republic	4	79
4	Republic of Dagestan	1	82

Table 3. The main parameters characterizing the potential attraction of the global market of Islamic finance in the region
Source: developed according to the data Central Bank of Russia (Bank of Russia, 2024), National Rating Agency (2024).

Relying on the data presented in **Table 3**, an important methodological element in determining the value of the ΔPt indicator is the **aggregation** of the considered variables into a single synthesized index.

It is important to emphasize that, in order to standardize the ΔPt parameter across all studied regions of the Russian Federation, all calculated values of regional indicators used in Formula 2 were normalized using the taxonomic data analysis method. This method is based on "measuring the distances between points in a multidimensional space, the dimensions of which are determined by the number of factors involved in the model" (Safiullin & Elshin, 2018, p. 34).

The current and projected values of the resulting aggregated ΔPt index for the examined group of regions are presented in Table 4. The forecast is based on the assumption that the investment attractiveness of the studied Russian regions and the level of implementation of Islamic finance tools in these regions will remain consistent with the positions observed in 2024. Thus, the assessed values of the ΔPt index are expected to remain static without changes until the year 2030.

No.	Region	2024	2025	2026	2027	2028	2029	2030
1	Republic of Tatarstan	0,781	0,781	0,781	0,781	0,781	0,781	0,781
2	Republic of Bashkortostan	0,217	0,217	0,217	0,217	0,217	0,217	0,217
3	Chechen Republic	0,319	0,319	0,319	0,319	0,319	0,319	0,319
4	Republic of Dagestan	0,056	0,056	0,056	0,056	0,056	0,056	0,056

Table 4. Projected values of the aggregated index ΔPt
Source: calculated by the authors.

According to the methodological toolkit (Figure 3), the **potential market capacity** of attracted Islamic finance in a given region is calculated using the following formula:

$$Et = Kvt * St * \Delta It * \Delta Pt * Ifintech, \qquad (1)$$

Where:

Et – Estimated inflow of Islamic finance into the region during period t (in USD billions)

Kvt – Baseline investment gap: the volume of foreign capital lost in the region (based on comparison between 2021 and post-sanctions levels)

St – Substitution coefficient: shows how much of the lost Western capital could be replaced by Islamic finance

ΔIt – Growth rate of the global Islamic finance market (reflects annual increase in Islamic finance availability)

ΔPt – Penetration index: how actively Islamic finance tools are being implemented in the region

Ifintech – Fintech readiness: the region's ability to integrate into digital investment ecosystems (e.g., use of blockchain, DeFi, etc.).

In other words, this model shows that even a partial redirection of investment from Islamic finance could significantly improve the region's financial resilience.

The value of the $I_{xnte}c_{h}$ index, which assesses the level of the region's integration into international fintech ecosystems, is determined based on the data presented in Table 5.

No.	Index Value	Interpretation
1	1.0	Fintech technologies are absent; no new channels for foreign investment inflows via partnership finance.
2	1.5	Fintech technologies operate fragmentarily, without a systemic foundation.
3	2.0	Fintech technologies are fully deployed in the region and integrated into international Islamic ecosystems based on blockchain platforms

Table 5. Meaningful interpretation of the possible values of the Ifintech coefficient
Source: developed by the authors.

Based on the obtained estimates and parameters, Table 6 presents the calculated values of the target index (E_t) for the Republic of Tatarstan. Similar calculations were also performed for the other regions in the studied group. The summary results of these calculations are presented in Table 7.

No.	Indicator	2024	2025	2026	2027	2028	2029	2030
1	Kvt, million USD	321	321	321	321	321	321	321
2	St, % (Substitution Potential Coefficient)	18,2	18,5	18,9	19,3	19,8	20,4	20,9
3	ΔIt, Growth Index*	1,105	1,144	1,146	1,107	1,107	1,097	1,088
4	ΔPt (Estimated Value)	0,781	0,781	0,781	0,781	0,781	0,781	0,781
5	$I_{xnte}c_h$ (Expert Evaluation)	1	1,5	2	2	2	2	2
6	E_t, million USD	50,4	79,6	108,6	107,2	109,9	112,2	114,0
7	E_t, billion RUB	**5,0**	**8,0**	**10,9**	**10,7**	**11,0**	**11,2**	**11,4**

1. * according to Islamic Corporation for the Development of the Private Sector and Refinitiv (2022)

Table 6. Assessment of the potential of the attracted foreign investment market in the form of partner Islamic finance in the region for the period up to 2030 (Republic of Tatarstan)
Source: calculated by the authors.

Region	2024	2025	2026	2027	2028	2029	2030
Republic of Tatarstan	5,0	8,0	10,9	10,7	11,0	11,2	11,4
Republic of Bashkortostan	1,9	3,0	4,1	4,0	4,1	4,2	4,3
Chechen Republic	0,10	0,15	0,21	0,20	0,21	0,21	0,22
Republic of Dagestan	0,003	0,004	0,006	0,006	0,006	0,006	0,006

Table 7. Assessment of the market capacity of attracted Islamic finance in the regions of the Russian Federation for the period up to 2030 within the framework of fintech solutions
Source: calculated by the authors.

In the broader global context, many countries have already made large progress integrating blockchain technologies into Islamic finance ecosystems. The development trajectory within Russian regions can be informed through valuable comparative perceptions that Malaysia, the United Arab Emirates (UAE), and Indonesia do offer.

Malaysia has brought Shariah-compliant financial products into alignment with blockchain platforms. Therefore, it is now a main center for Islamic fintech. Malaysia's regulatory body Bank Negara Malaysia backs sandbox environments for Islamic fintech startups. These environments let startups deploy smart contracts with decentralized ledgers in sukuk issuance, microfinance, and halal supply chain certification (Mohd Nor et al., 2021).

In the UAE, initiatives like the Emirates Blockchain Strategy 2021 have helped encourage the integration of blockchain across financial services which includes using Shariah-certified tokens also decentralized platforms for the managing of waqf assets (Dahdal et al., 2022). Dubai's Islamic Economy Strategy innovates explicitly in a digital way as it promotes finance that is Shariah-compliant.

Likewise, Indonesia has supported development of the platforms when those platforms crowdfunded, via blockchain, Islamic causes particularly intended for rural development as well as small-scale entrepreneurship. Important for an inclusive Islamic finance field are the models' transparency aspects, cost reduction aims, and improved accessibility scopes (Hamzah, 2025).

By contrast, Russia pilots its program for Islamic finance at an early stage, and someone integrates blockchain experimentally (Zhilyakov et al., 2025; Klochko et al., 2025). Regulatory flexibility, technological infrastructure, and cultural-religious alignment combining suggests that success lies in these international experiences. Russian regions have strong Islamic identities therefore their convergence could accelerate greatly. Their acceleration within global Islamic financial ecosystems may improve by replicating or adapting best practices from Malaysia or the UAE.

This strategic convergence holds important implications for sustainable competitive intelligence. First, integrating blockchain with Islamic finance promotes financial innovation in regions traditionally underserved by Western capital. Through tokenization of sukuk, smart contracts for partnership-based financing, and decentralized waqf platforms, local economies can implement transparent, efficient, and Shariah-compliant tools that strengthen their investment attractiveness. Second, in the face of external economic pressure and limited access to global clearing systems, the proposed framework offers a route to regional resilience by enabling financial autonomy through alternative capital inflows. This reduces exposure to sanctions-related risks and supports long-term economic stability. Third, participation in blockchain-enabled Islamic finance facilitates international integration. Russian regions can build digital financial bridges with markets in Southeast Asia and the Middle East, aligning with global Islamic fintech standards while maintaining regulatory sovereignty. Such infrastructure not only mitigates isolation but also enhances global competitiveness through sustainable, value-driven financial innovation. Ultimately, blockchain-supported Islamic finance can become a structural advantage for regions navigating complex geopolitical realities, contributing to their positioning within emerging economic alliances and digital trade corridors.

5. CONCLUSION

Taking into account that the obtained estimates of the potential inflow of foreign investments into the regions—in the form of Islamic finance—are based on the assumption of launching special blockchain “gateways” integrated into international, friendly crypto ecosystems, it is entirely reasonable to advocate for the establishment of special institutions in the regions for managing foreign economic activity using the discussed fintech technologies.

This organizational and economic mechanism creates a strong foundation for attracting foreign investment in the form of partnership-based finance from countries with a highly developed Islamic finance industry. Given that the current and developing regulatory framework governing digital financial instruments in the context of foreign economic activity by Russian Federation residents aligns with the principles and mechanisms for transnational financial relations proposed in this study, the solutions offered here may significantly influence the growth of investment activity in regions where Islamic finance principles are well-established and where there is a clear orientation toward fintech-driven technological advancement.

It should be noted that the empirical base used for scenario modeling uses official data available until 2021 along with projections and interpolations during 2022, 2024 based on expert views plus regional analytical bulletins. Because financial flows are lacking in transparency particularly in Islamic finance also as public data disclosure faces restrictions that are sanctions-related access of real-time statistics stays quite limited. Anyway, this approach for modeling integrates scenario adjustments plus strong sensitivity coefficients. This integration reflects on the volatility of capital flows under geopolitical constraints, particularly through the substitution index (St) and penetration rate (ΔPt). More granular data in regard to fintech platform performance metrics, regional digital asset flows, with cross-border Islamic finance transactions would benefit future research.

The importance of this direction is further reinforced by the ongoing shift of the global financial transaction landscape into the digital environment. In this context, strategic adaptability of regions to the evolving and rapidly advancing fintech agenda becomes critically important.

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