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MEASURING ISLAMIC FINANCIAL INCLUSION IN CENTRAL ASIA: AN APPLICATION OF THE ISLAMIC FINANCIAL INCLUSION INDEX

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Abstract.

This article introduces and applies the Islamic Financial Inclusion Index (IMII), a composite measure designed to capture the inclusiveness of the Islamic finance segment of a banking system, to the five states of Central Asia. The index follows the multidimensional tradition of financial-inclusion measurement and combines three dimensions, namely access, usage and quality, into a single weighted score in which quality carries the highest weight (0.40), usage an intermediate weight (0.35) and access the lowest weight (0.25), reflecting that the mere availability of services does not guarantee genuine inclusion. Applying the index to Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan, and benchmarking the results against mature dual-banking systems, the study finds that Islamic financial inclusion remains at a very early stage across the entire region. All Central Asian scores fall far below the benchmark levels of Turkey (about 0.25) and Malaysia (about 0.65). Within the region, Kazakhstan (0.20) and Tajikistan (0.19) lead, followed by the Kyrgyz Republic (0.15), while Uzbekistan records the lowest current score (0.028) despite possessing the region's largest population and strongest latent demand. The central contribution of the study is methodological and diagnostic. It provides the first cross-country measurement of Islamic financial inclusion in Central Asia, quantifies the gap between potential and realisation, and shows that Uzbekistan's position is driven not by weak demand but by the early stage of institutional operationalisation following its 2026 Islamic finance law.

Keywords: *Islamic finance, financial inclusion, IMII, Central Asia, Uzbekistan, composite index, access, usage, quality, dual banking.*

Introduction

The measurement of financial inclusion has become central to both research and policy, because what is measured shapes what is prioritised. While the inclusiveness of conventional banking systems is now routinely quantified through multidimensional indices, the inclusiveness of the Islamic finance segment has received far less systematic measurement, particularly in emerging markets. This gap is consequential for regions where a large share of the population may abstain from conventional finance for religious reasons, since in such settings Islamic finance is not merely an alternative product line but a potential instrument of inclusion in its own right.

Central Asia is an instructive case. Across Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan, Muslims constitute on average about 85 per cent of the population, yet the region accounted for only around US$699 million in Islamic finance assets in 2024, roughly 0.01 per cent of the global total (EDB, IsDBI, & LSEG, 2025). This contrast between a broad latent demand base and a very small realised market raises a measurement question that precedes any policy prescription, namely how inclusive the Islamic finance segment actually is across these neighbouring states, and how far each country stands from its potential.

This article addresses that question by introducing and applying the Islamic Financial Inclusion Index (IMII), a composite measure that adapts the established multidimensional approach to financial-inclusion measurement to the specific case of Islamic finance. The index combines three dimensions,

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access, usage and quality, into a single weighted score. Its purpose is to make the inclusiveness of the Islamic finance segment comparable across countries and over time, and to distinguish the institutional readiness of a market from the extent to which its population actually uses Sharia-compliant services.

The aim of the research is to measure Islamic financial inclusion across the five Central Asian states using the IMII, to benchmark the results against mature dual-banking systems, and to interpret the position of Uzbekistan in regional perspective. The scientific novelty of the study is twofold. It provides the first cross-country application of an Islamic-finance-specific inclusion index to Central Asia, and it demonstrates that the index can separate institutional development from genuine usage, thereby revealing a potential-realisation gap that aggregate market statistics conceal.

1. Literature review and conceptual background

The measurement of financial inclusion rests on the recognition that it is a multidimensional phenomenon. Sarma (2008, 2012) developed the first widely used index of financial inclusion, combining the dimensions of banking penetration, availability and usage into a single value between zero and one using a distance-based method analogous to the Human Development Index. Subsequent work refined both the dimensions and the aggregation. Amidžić, Massara and Mialou (2014) constructed a composite index from the dimensions of outreach, usage and quality, where the quality dimension captures how well services meet consumer needs and how informed and protected consumers are, while Camara and Tuesta (2014) introduced a parametric approach based on principal component analysis. These contributions established a common architecture, namely a small number of dimensions, each populated by indicators and combined into a single comparable score.

A persistent theme in this literature is that access does not guarantee usage, and usage does not guarantee quality. Beck, Demirgüç-Kunt and Martínez Pería (2007) showed that the proximity of a branch does not ensure that households actually use financial services, and the Global Findex programme has documented that hundreds of millions of accounts worldwide remain dormant (Demirgüç-Kunt et al., 2022). This insight motivates indices that weight usage and quality at least as heavily as physical access, since genuine inclusion is realised only when available services are actively and beneficially used.

A parallel literature examines the relationship between Islamic finance and financial inclusion specifically. Demirgüç-Kunt, Klapper and Randall (2013) used Global Findex data to show that Muslim adults are less likely than non-Muslims to hold a formal account, and that a non-trivial share of the unbanked cite religious reasons, a form of voluntary self-exclusion. Naceur, Barajas and Massara (2015) found that, although physical access to Islamic finance has expanded, its translation into higher usage has been only tentative, underscoring that supply-side development is necessary but not sufficient. Mohieldin, Iqbal, Rostom and Fu (2012) argued that Islamic finance, through risk-sharing and the inclusion of the voluntarily excluded, holds particular promise for raising inclusion in member countries of the Organisation of Islamic Cooperation. Imam and Kpodar (2016) provided cross-country evidence that the presence of Islamic banking is associated with higher financial inclusion.

Building on these two strands, a number of studies have attempted to construct Islamic-finance-specific inclusion indicators, for example for Indonesia and for sub-national settings, typically adapting the access, usage and quality dimensions to Sharia-compliant products. The present study extends this emerging line of work in two respects. It is the first to apply such an index across all five Central Asian states, and it does so using a transparent, weighted three-dimensional structure benchmarked against mature dual-banking systems. In doing so it responds to the absence, noted in regional analyses (EDB, IsDBI, & LSEG, 2025), of comparable country-level measurement of Islamic financial inclusion in the region.

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2. The Islamic Financial Inclusion Index (IMII)

The IMII measures the inclusiveness of the Islamic finance segment of a banking system. Unlike a general index of financial inclusion, which captures the whole banking system, the IMII isolates the Sharia-compliant segment, so that a value close to zero indicates that Islamic financial inclusion is effectively absent even where conventional inclusion may be high. The index is built from three dimensions, each normalised to the zero-to-one interval, and combined as a weighted average:

$$IMII = 0.25 \times Access + 0.35 \times Usage + 0.40 \times Quality$$

The weights are deliberately unequal. The quality dimension receives the highest weight (0.40) because, as the measurement literature emphasises, the depth, diversity and governance of services determine whether inclusion is genuine rather than nominal. Usage receives an intermediate weight (0.35) because it reflects the actual outcome of inclusion. Access receives the lowest weight (0.25) because the availability of services, while necessary, does not by itself guarantee inclusion, a point established by Beck, Demirgüç-Kunt and Martínez Pería (2007).

Each dimension is the simple average of three sub-indicators expressed as ratios of the Islamic segment to the total banking system. Access combines the share of banks offering Islamic finance, the share of branches providing it, and the availability of dedicated digital channels. Usage combines the share of Islamic-finance account holders, the share of Islamic deposits and the share of the Islamic financing portfolio. Quality combines the diversity of products offered relative to a standard product set, the completeness of the Shariah-governance architecture, and a measure of consumer satisfaction. Table 1 summarises this structure.

Table 1. Structure of the Islamic Financial Inclusion Index (IMII)

Dimension (weight)	Sub-indicators (ratio of Islamic segment to total)
Access (0.25)	Share of banks offering Islamic finance in total banks. Share of branches providing it. Availability of dedicated digital Islamic channels, graded 0 to 1.
Usage (0.35)	Share of Islamic-finance account holders in all account holders. Share of Islamic deposits in total deposits. Share of the Islamic financing portfolio in total credit.
Quality (0.40)	Range of products offered against a six-instrument standard set. Completeness of Shariah governance across Sharia board, internal Sharia audit and external Sharia audit. Consumer-satisfaction indicator.

Source: compiled by the author, adapting the multidimensional approach of Sarma (2008, 2012) and the access, usage and quality dimensions of Amidžić, Massara and Mialou (2014) to the Islamic finance segment.

Two features of the operationalisation require comment. First, because the data on the Islamic-finance segment in Central Asia are sparse, the sub-indicators are estimated from the best available national banking-sector sources and from the regional report of the Eurasian Development Bank and its partners (EDB, IsDBI, & LSEG, 2025), supplemented by national-bank disclosures. The resulting scores should therefore be read as indicative rather than exact. Second, for cross-country comparison the digital-access sub-indicator is treated as a graded measure between zero and one, reflecting the breadth of digital Sharia-compliant channels, rather than as a strict institution-level binary, since a

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binary measure would disproportionately inflate the access dimension for any country possessing a single digital channel.

To anchor the interpretation, the index is benchmarked against two mature dual-banking systems. Computed on the same basis, Turkey, where participation banks hold roughly eight per cent of banking assets, scores approximately 0.25, and Malaysia, where the Islamic segment exceeds forty per cent of assets, scores approximately 0.65. These reference values, consistent with the author's wider research on the IMII, provide a scale against which the early-stage Central Asian markets can be judged.

3. Results

Table 2 reports the IMII and its three dimensions for the Central Asian states, together with the two benchmark systems. The most striking result is regional rather than national. Every Central Asian score lies far below the benchmark levels of Turkey and Malaysia, confirming that Islamic financial inclusion across the region remains at an early, pre-deepening stage.

Table 2. Islamic Financial Inclusion Index across Central Asia, with benchmarks

Country	Access	Usage	Quality	IMII
Malaysia (benchmark)	0.600	0.450	0.850	0.647
Turkey (benchmark)	0.150	0.080	0.450	0.246
Kazakhstan	0.130	0.005	0.420	0.202
Tajikistan	0.140	0.055	0.340	0.190
Kyrgyz Republic	0.054	0.010	0.333	0.150
Uzbekistan	0.016	0.005	0.056	0.028
Turkmenistan	—	—	—	n/a

Source: author's computation from EDB, IsDBI and LSEG (2025), national banking-sector sources and the Islamic Finance Development Report (ICD–LSEG, 2024). Values are indicative. Turkmenistan is not scored owing to the absence of an enabling framework and data.

Within the region, Kazakhstan records the highest score (0.202), followed closely by Tajikistan (0.190), then the Kyrgyz Republic (0.150), while Uzbekistan records the lowest (0.028) and Turkmenistan cannot be scored. The composition of these scores is as informative as their ranking. Kazakhstan's position rests almost entirely on its quality dimension, reflecting the governance architecture and product range associated with the Astana International Financial Centre, even though its usage dimension is negligible, since the Islamic segment is only about 0.4 per cent of banking assets. Tajikistan presents the opposite profile. Its usage dimension is by far the highest in the region, because the Islamic segment, anchored by a converted Islamic bank and a large Islamic-principle fintech, reaches roughly six per cent of banking-system assets, the highest such share among the five states, while its governance and product range are thinner than Kazakhstan's.

Uzbekistan's low score is the central national finding. It does not reflect weak demand, which surveys consistently show to be the strongest in the region, but rather the early stage of institutional operationalisation. At present the country's Islamic banking activity is represented chiefly by a single

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pioneer institution offering a narrow corporate product without a dedicated Shariah board or digital channel, which depresses all three dimensions. The adoption of the dedicated Islamic finance law in 2026, with its provisions for a central Council for Islamic Finance, tax neutrality and the recognition of sukuk, marks the threshold at which these dimensions can begin to rise.

The trajectory implied by Uzbekistan's reform agenda can be expressed through the same index. As Islamic windows open and full institutions emerge, the score is projected to rise from its current level to an intermediate value by 2027 and towards the level of an established market such as Turkey by 2030, as set out in Table 3.

Table 3. Projected trajectory of Uzbekistan's IMII, 2024–2030

Dimension	2024 (current)	2027 (pilot)	2030 (target)
Access	0.016	0.10	0.25
Usage	0.005	0.05	0.15
Quality	0.056	0.10	0.20
IMII	0.028	0.081	0.193

Source: author's projection, consistent with the implementation milestones of at least one Islamic window by 2027 and full institutions by 2029–2030.

4. Discussion

The principal value of the IMII lies in its capacity to separate institutional readiness from genuine usage, two properties that aggregate market statistics blend together. The Kazakhstan and Tajikistan results illustrate this clearly. A measure based on market size alone would rank Kazakhstan well ahead, since its absolute Islamic assets are the largest in the region. The IMII, by weighting usage and quality more heavily than access, instead shows the two countries almost level, because Kazakhstan's institutional quality is offset by negligible penetration, while Tajikistan's higher penetration is offset by thinner governance. The index thus conveys that institutional development and market depth are distinct achievements, and that a country can advance on one while lagging on the other.

For Uzbekistan the diagnostic message is sharper. The country combines the region's largest population, a Muslim share of about ninety-six per cent, and the strongest documented latent demand, with surveys reporting that roughly three quarters of individuals and three fifths of businesses would use Islamic financial services if they were available (Imamnazarov, 2020), and independent estimates placing potential demand in the range of US$10 to 15 billion. Yet its current IMII is the lowest in the region. This juxtaposition defines a potential-realisation gap. The constraint is not demand but the early stage of supply-side operationalisation, since the dedicated legal framework entered force only in 2026 and full Sharia-compliant institutions have not yet been established. The index therefore reframes the policy question from whether to develop Islamic finance to how quickly the new framework can be translated into operating institutions, governance and products.

At the regional level, the results indicate that Central Asia as a whole occupies the earliest segment of the development path. Even the regional leaders score below 0.21, against 0.25 for Turkey and 0.65 for Malaysia, so the gap to a mature dual-banking system is large for every state. Convergence will require advances on both the institutional and the usage dimensions simultaneously,

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since high-quality frameworks without uptake, as in Kazakhstan, and modest uptake without deep governance, as in Tajikistan, each leave the composite score well short of the benchmark.

Several limitations qualify these findings. The most important is data scarcity. Disaggregated statistics on the Islamic-finance segment are not consistently published in the region, so the sub-indicators rely on best-available estimates and the resulting scores are indicative rather than definitive. Turkmenistan cannot be scored at all, because it has neither an enabling framework nor reported Islamic-finance data, and is therefore treated as a pre-formation case rather than assigned an artificial value. A second limitation is sensitivity to the weighting scheme, since the quality-weighted structure favours institutionally developed markets such as Kazakhstan, and a usage-weighted scheme would raise Tajikistan's relative position. A third concerns operationalisation choices, including the treatment of the digital-access indicator as graded rather than binary, which affects the access dimension. Finally, the index is a single-period snapshot, and a panel covering several years would better capture the rapid changes now under way.

5. Conclusion

This study introduced the Islamic Financial Inclusion Index and applied it, for the first time, across the five states of Central Asia. Four findings stand out.

First, Islamic financial inclusion in Central Asia remains at a very early stage. Every state scores far below the benchmark levels of Turkey and Malaysia, which confirms quantitatively that the region's broad latent demand has not yet been matched by realised inclusion.

Second, the regional ranking places Kazakhstan and Tajikistan ahead, the Kyrgyz Republic in an intermediate position, and Uzbekistan lowest, while Turkmenistan cannot be measured. The composition of the scores matters as much as the ranking, since Kazakhstan leads on institutional quality and Tajikistan on actual usage.

Third, Uzbekistan's low current score reflects a potential-realisation gap rather than weak demand. With the region's largest population and strongest documented demand but the least operationalised supply, the country's score is expected to rise from 0.028 today towards 0.081 by 2027 and 0.193 by 2030 as its 2026 legal framework is implemented.

Fourth, the index demonstrates analytical value by separating institutional readiness from genuine usage, a distinction that aggregate market statistics obscure and that is essential for setting priorities.

For policy, the results imply that Uzbekistan should concentrate on converting its legal framework into operating capacity, namely the opening of Islamic windows, the establishment of Shariah-governance structures, the broadening of the product range beyond a single instrument, the development of digital Sharia-compliant channels, and measures to raise public awareness, since more than sixty per cent of potential users still report limited understanding of how such products work. For research, the priority is to build a multi-year panel of the IMII and its dimensions across the region, which would allow the trajectories projected here to be tested against outcomes and would support difference-in-differences analysis of the inclusion effects of Islamic finance as new institutions begin operating.

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