

American Journal of Social and Humanitarian Research

Vol. 7 Issue 11 | **pp.** 50-55 | **ISSN:** 2690-9626
Available online @ https://globalresearchnetwork.us/index.php/ajshr

Article

Improving the Methodology for Assessing the Development of Islamic Finance in Developing Countries

Sherzod Ziyo Azamat o'g'li*[1]

1. PhD in economics, Tashkent International University, Tashkent, Uzbekistan
*Correspondence: sherzod.7070@inbox.ru

Abstract: The article analyses existing approaches to measuring the level of Islamic finance development in developing countries and identifies their main shortcomings: excessive focus on size, neglect of social outcomes, subjectivity in weighting, and data limitations. To address these problems, a five-block Integrated Islamic Finance Development Index (IMRI) methodology is proposed. The methodology includes the stages of normalisation, hybrid weighting, non-compensatory aggregation, robustness testing, and macroeconomic validation.

Keywords: Islamic finance, developing countries, composite index, maqasid, financial inclusion, efficiency, assessment methodology.

1. Introduction

Over the past two decades, Islamic finance has become one of the fastest-growing segments of the global financial system: according to IFSB data, the total assets of the Islamic financial services industry have exceeded USD 3 trillion [1]. In developing countries, this sector is viewed as a means of increasing financial depth, reaching segments of the population excluded from conventional financial services, and financing the real economy on a participatory basis [2]. The theory of the finance–growth nexus has also raised the need for empirical investigation of the impact of Islamic finance on growth: while some studies confirm a positive effect of Islamic banking on growth others show that this effect depends on institutional conditions [3].

However, the very concept of "development" is not measured on a single methodological basis [4]. In practice, the most widely used tools — indicators of asset size and market share, as well as the Islamic Finance Development Indicator calculated by ICD–Refinitiv — describe the size of the sector well but do not adequately reflect its quality, social performance, or genuine compliance with Shariah requirements [5]. International databases on financial inclusion do not separately identify aspects specific to Islamic finance. Therefore, the aim of this study is to develop a multidimensional and statistically grounded assessment methodology suited to the conditions of developing countries [6], [7].

In the foreign literature, the assessment of Islamic finance has developed along three main directions. The first direction involves comparative analysis of Islamic and conventional banks on the basis of financial indicators [8]. Beck et al. showed that Islamic banks have lower cost efficiency but higher capitalization.

Citation: Azamat o'g'li S. Z. Improving the Methodology for Assessing the Development of Islamic Finance in Developing Countries. American Journal of Social and Humanitarian Research 2026, 7(11), 50-55

Received: 09th Aug 2026
Revised: 10th Sep 2026
Accepted: 20th Oct 2026
Published: 04th Nov 2026

Copyright: © 2026 by the authors. Submitted for open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/)

Čihák and Hesse found that small Islamic banks are more stable while large Islamic banks are less stable; Abedifar et al. demonstrated that the risk profile depends on country conditions [9]. Hasan and Dridi noted that during the global crisis Islamic banks maintained higher profitability and stable credit growth [10]. IMF studies emphasise the specific requirements of macroprudential supervision in countries with Islamic banking [11].

The second direction assesses efficiency using non-parametric (DEA) and stochastic frontier (SFA) methods [12]. The results of these studies are sensitive to the selected period, country, and assumed "production technology," and do not always properly take into account the distinctive financing structure of Islamic banks (murabaha, ijarah, musharakah) [13].

The third direction has been developed within the framework of maqasid al-Shariah: Chapra describes development through the protection of faith, life, intellect, lineage, and property, while Laldin and Furqani propose a concept of developing the financial sector precisely within these objectives [14]. Mohammed and co-authors have translated the maqasid-based performance model into practical indicators [15].

The analysis has revealed the following methodological gaps: (1) existing indices rely excessively on size indicators; (2) financial and maqasid approaches are not integrated into a single system; (3) weighting is mainly based on expert judgment and is subjective; (4) incomplete data in developing countries, dual banking systems, and the activities of "Islamic windows" are not taken into account; (5) the relationship of the index with economic outcomes is rarely tested [16].

2. Methodology

The proposed Integrated Islamic Finance Development Index (IMRI) consists of five blocks, each describing a distinct aspect of a country's Islamic financial system.

- Block 1 – Institutional depth: the share of Islamic financial assets in total financial assets, the capitalisation of the sukuk market relative to GDP, and takaful coverage.

- Block 2 – Financial inclusion: the share of users of Islamic financial services, the number of branches (per 100,000 population), and the share of financing provided to small and medium-sized enterprises.

- Block 3 – Stability and efficiency: Z-score, the share of non-performing financing, capital adequacy, and technical efficiency based on DEA.

- Block 4 – Maqasid and social outcomes: the maqasid-based performance index, the share of profit-and-loss sharing (PLS) financing, the volume of zakat and qard hasan, and financing directed to the real sector.

- Block 5 – Regulation and Shariah governance: the existence of dedicated legislation, the functioning of a central Shariah board, compliance with IFSB standards, and the level of qualified human resources.

Data sources include IFSB, IMF and Global Findex databases, central bank statistics, banks' annual and Shariah supervisory reports, as well as expert surveys.

3. Results

In the first stage, indicators are brought to the [0; 1] interval using the min–max method: the minimum value in the sample is subtracted from each observation and the result is divided by the range between the maximum and minimum values; for reverse indicators (e.g., the share of non-performing financing) the resulting value is subtracted from one. Missing data are imputed with the regional median and the share of such values is reported [17].

In the second stage, hybrid weighting is applied: the final weight is determined as the weighted sum of two components. The first is an objective weight derived from the data themselves on the basis of Shannon entropy; the second is a subjective weight obtained from Shariah scholars, regulators, and academic experts through Delphi and AHP methods. Their ratio is set by a special parameter and in the baseline variant is equal (50 percent each). This approach simultaneously reduces the subjectivity of pure expert weighting and the lack of substantive grounding of pure statistical weighting.

In the third stage, block scores are aggregated using a weighted geometric mean: each block value is raised to the power of its weight and the results are multiplied. Unlike the arithmetic mean, geometric aggregation does not allow a high score in one block to fully compensate for a serious weakness in another. This prevents the overvaluation of systems that have a large asset base but weak Shariah governance and social outcomes [18].

The fourth stage includes robustness testing: the internal consistency of indicators is assessed by Cronbach's alpha, and the sensitivity of index results to changes in weights is evaluated by Monte Carlo simulation (at least 10,000 iterations) and Spearman rank correlation.

In the fifth stage, the substantive validity of the index is tested through panel regression: the growth rate of GDP per capita is linked as the dependent variable to the index value as well as to control variables (investment, inflation, trade openness, human capital), and the model includes country and time fixed effects. To reduce the risk of endogeneity, the system GMM method is applied. The relationship of the index with financial inclusion and real-sector lending is also examined in separate models [19].

The methodology has three main novelties. First, maqasid-based social outcomes and the quality of Shariah governance are combined with traditional financial indicators in a single system. Second, objective and expert approaches are harmonised in weighting, and inter-block compensation is limited through geometric aggregation. Third, the index is not merely calculated but is empirically grounded through its relationship with economic growth and inclusion.

The international standard for constructing composite indices is the handbook jointly produced by the OECD and the European Commission's Joint Research Centre [20]. It envisages the stages of establishing a theoretical framework, selecting indicators, imputing missing data, multivariate analysis, normalisation, weighting, aggregation, sensitivity analysis, and presentation of results. The IMRI methodology follows exactly this sequence while enriching it with the specific features of Islamic finance — Shariah governance, participatory financing, and maqasid outcomes.

The objective weight is calculated by the entropy method. First, the normalised values of each indicator are converted into shares relative to the sum across countries; then the information entropy of the indicator is obtained on the basis of these shares and normalised by the logarithm of the number of observations. The weight of the indicator is proportional to one minus its entropy: an indicator that varies more across countries has lower entropy and therefore higher weight, because it provides more information for discriminating among countries. The expert weight is obtained by Saaty's Analytic Hierarchy Process (AHP): experts perform pairwise comparisons of indicators and blocks; the consistency ratio is calculated on the basis of the largest eigenvalue of the resulting matrix, and judgments whose ratio exceeds the 0.10 threshold are revised.

Technical efficiency in the stability and efficiency block is assessed at the bank level using Data Envelopment Analysis (DEA) and is then aggregated to the country level as an asset-weighted average. For Islamic banks it is important to treat profit-sharing investment accounts separately from conventional deposits in the input structure [21].

The reliability of the index results is assessed by means of uncertainty and sensitivity analysis. In this process the normalisation method (min–max or z-score), the weighting scheme (purely objective, equal-mix, and purely expert variants), the aggregation form (arithmetic or geometric), and the option of excluding individual indicators are varied jointly; the average rank shift of each country and its confidence interval are calculated.

4. Discussion

In macroeconomic validation, the relationship between lagged values of the index and economic growth is estimated in dynamic panel models. Given the endogeneity problem and the limited number of time observations, the system GMM estimator proposed by Blundell and Bond is applied; it is necessary to prevent instrument proliferation, to test instrument validity by means of the Hansen test, and to verify the absence of second-order residual autocorrelation by means of the Arellano–Bond test [22].

When applying the methodology in developing countries, including states such as Uzbekistan where the Islamic finance infrastructure is still emerging, three constraints must be taken into account. First, data availability: if separate statistics on Islamic finance are not maintained, the index must rely on proxy indicators and their share must be reported transparently. Second, for countries where the sector is still young, growth rates and indicators of institutional readiness are more important than absolute size indicators; therefore, higher expert weights may be assigned to the institutional and regulatory blocks. Third, the calculation of maqasid indicators requires standardisation of banks' Shariah supervisory and annual reports.

The IMRI value lies in the interval [0; 1]. It is recommended to classify countries into four groups:

- 0.00–0.25 – initial stage (Islamic finance infrastructure not yet formed);

- 0.25–0.50 – emerging stage (legislation and initial institutions exist, but market depth is low);

- 0.50–0.75 – developing stage (the market is active, yet significant imbalances remain in certain blocks);

- 0.75–1.00 – mature stage.

Importantly, in addition to the overall index, a profile for each block is also presented: this shows precisely in which direction a country lags and creates a practical basis for policy decisions [23].

The advantages of the proposed approach over existing methods are as follows. First, the index measures not only the size of the sector but also its quality — stability, efficiency, and social performance — and can therefore distinguish a small but high-quality developing system from a large but unbalanced one. Second, hybrid weighting reduces dependence of the results on the judgment of a single expert group, while sensitivity analysis openly shows how reliable the results are. Third, validation through panel regression transforms the index from a purely descriptive indicator into an analytical tool for economic policy [24].

5. Conclusion

The results of the study show that existing methods of assessing Islamic finance development in developing countries are size-oriented, insufficiently take into account the socio-maqasid dimension, and rely on subjective weighting. The proposed IMRI methodology combines a five-block indicator system, hybrid weighting, geometric aggregation, robustness tests, and macroeconomic validation, thereby eliminating these shortcomings. In future research it is advisable to test the methodology on panel data of selected developing countries and to assess the sensitivity of weights in a regional cross-section.

REFERENCES

[1] Islamic Financial Services Board (IFSB), *Islamic Financial Services Industry Stability Report 2023*. Kuala Lumpur, Malaysia: IFSB, 2023. [Online]. Available: https://www.ifsb.org

[2] R. Levine, "Finance and growth: Theory and evidence," in *Handbook of Economic Growth*, vol. 1A, P. Aghion and S. N. Durlauf, Eds. Amsterdam, Netherlands: Elsevier, 2005, pp. 865–934, doi: 10.1016/S1574-0684(05)01012-9.

[3] P. Imam and K. Kpodar, "Islamic banking: Good for growth?," *Economic Modelling*, vol. 59, pp. 387–401, 2016, doi: 10.1016/j.econmod.2016.08.004.

[4] M. K. Hassan and S. Aliyu, "A contemporary survey of Islamic banking literature," *Journal of Financial Stability*, vol. 34, pp. 12–43, 2018, doi: 10.1016/j.jfs.2017.11.006.

[5] Islamic Corporation for the Development of the Private Sector (ICD) and Refinitiv, *Islamic Finance Development Report 2022: Embracing Change*. Jeddah, Saudi Arabia: ICD–Refinitiv, 2022.

[6] A. Demirgüç-Kunt, L. Klapper, D. Singer, S. Ansar, and J. Hess, *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution*. Washington, DC, USA: World Bank, 2018, doi: 10.1596/978-1-4648-1259-0.

[7] S. Umarov, I. Tlemsani, M. A. Mohamed Hashim, and R. Matthews, "Implementing Islamic banking in Uzbekistan," *Journal of Islamic Business and Management*, vol. 14, no. 1, 2024, doi: 10.26501/jibm/2024.1401-002.

[8] T. Beck, A. Demirgüç-Kunt, and O. Merrouche, "Islamic vs. conventional banking: Business model, efficiency and stability," *Journal of Banking & Finance*, vol. 37, no. 2, pp. 433–447, 2013, doi: 10.1016/j.jbankfin.2012.09.016.

[9] P. Abedifar, P. Molyneux, and A. Tarazi, "Risk in Islamic banking," *Review of Finance*, vol. 17, no. 6, pp. 2035–2096, 2013, doi: 10.1093/rof/rfs041.

[10] M. Hasan and J. Dridi, "The effects of the global crisis on Islamic and conventional banks: A comparative study," *Journal of International Commerce, Economics and Policy*, vol. 2, no. 2, pp. 163–200, 2011, doi: 10.1142/S1793993311000270.

[11] International Monetary Fund, "Ensuring financial stability in countries with Islamic banking," IMF Policy Paper, Washington, DC, USA, 2017.

[12] J. Johnes, M. Izzeldin, and V. Pappas, "A comparison of performance of Islamic and conventional banks 2004–2009," *Journal of Economic Behavior & Organization*, vol. 103, pp. S93–S107, 2014, doi: 10.1016/j.jebo.2013.07.016.

[13] M. Abdul-Majid, D. S. Saal, and G. Battisti, "Efficiency in Islamic and conventional banking: An international comparison," *Journal of Productivity Analysis*, vol. 34, no. 1, pp. 25–43, 2010, doi: 10.1007/s11123-009-0165-3.

[14] M. A. Laldin and H. Furqani, "Developing Islamic finance in the framework of maqasid al-Shari'ah: Understanding the ends (maqasid) and the means (wasa'il)," *International Journal of Islamic and Middle Eastern Finance and Management*, vol. 6, no. 4, pp. 278–289, 2013, doi: 10.1108/IMEFM-05-2013-0057.

[15] M. O. Mohammed, K. M. Tarique, and R. Islam, "Measuring the performance of Islamic banks using maqāṣid-based model," *Intellectual Discourse*, vol. 23, 2015, doi: 10.31436/id.v23i0.692.

[16] S. Greco, A. Ishizaka, M. Tasiou, and G. Torrisi, "On the methodological framework of composite indices: A review of the issues of weighting, aggregation, and robustness," *Social Indicators Research*, vol. 141, no. 1, pp. 61–94, 2019, doi: 10.1007/s11205-017-1832-9.

[17] R. J. A. Little and D. B. Rubin, *Statistical Analysis with Missing Data*, 3rd ed. Hoboken, NJ, USA: Wiley, 2019, doi: 10.1002/9781119482260.

[18] G. Munda and M. Nardo, "Noncompensatory/nonlinear composite indicators for ranking countries: A defensible setting," *Applied Economics*, vol. 41, no. 12, pp. 1513–1523, 2009, doi: 10.1080/00036840601019364.

[19] A. Demirgüç-Kunt, L. Klapper, and D. Randall, "Islamic finance and financial inclusion: Measuring use of and demand for formal financial services among Muslim adults," *Review of Middle East Economics and Finance*, vol. 10, no. 2, pp. 177–218, 2014, doi: 10.1515/rmeef-2013-0062.

[20] OECD and European Commission Joint Research Centre, *Handbook on Constructing Composite Indicators: Methodology and User Guide*. Paris, France: OECD Publishing, 2008, doi: 10.1787/9789264043466-en.

[21] R. Rosman, N. A. Wahab, and Z. Zainol, "Efficiency of Islamic banks during the financial crisis: An analysis of Middle Eastern and Asian countries," *Pacific-Basin Finance Journal*, vol. 28, pp. 76–90, 2014, doi: 10.1016/j.pacfin.2013.11.001.

[22] R. Blundell and S. Bond, "Initial conditions and moment restrictions in dynamic panel data models," *Journal of Econometrics*, vol. 87, no. 1, pp. 115–143, 1998, doi: 10.1016/S0304-4076(98)00009-8.

[23] M. Saisana, A. Saltelli, and S. Tarantola, "Uncertainty and sensitivity analysis techniques as tools for the quality assessment of composite indicators," *Journal of the Royal Statistical Society: Series A*, vol. 168, no. 2, pp. 307–323, 2005, doi: 10.1111/j.1467-985X.2005.00350.x.

[24] L. Gheeraert and L. Weill, "Does Islamic banking development favor macroeconomic efficiency? Evidence on the Islamic finance–growth nexus," *Economic Modelling*, vol. 47, pp. 32–39, 2015, doi: 10.1016/j.econmod.2015.02.012.