



# *40<sup>TH</sup> ANNIVERSARY* SPECIAL EDITION

NOVEMBER 2024





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## PREFACE

The Standing Committee for Economic and Commercial Cooperation (COMCEC) is the highest consultation and decision-making platform for Islamic countries in economic and development-related issues. As one of the Standing Committees within the Organization of Islamic Cooperation (OIC), its foundation was laid during the Third Islamic Summit Conference that took place in Mecca/Taif in 1981. This initiative marked the onset of a concerted effort to foster economic and commercial cooperation among the OIC Member States. COMCEC became fully operational at the Fourth Islamic Summit Conference, which was held in Casablanca in the Kingdom of Morocco in 1984. This pivotal moment was further underscored by the election of the President of the Republic of Türkiye to its Chairmanship, a role that has since been integral to guiding the committee's activities. In the same year, under this new leadership, COMCEC convened its inaugural ministerial-level meeting, laying the groundwork for its future endeavours.

COMCEC's membership has grown to encompass 57 Member Countries, reflecting a broad geographical coverage of the Islamic world and its diverse economies. In addition to these members, COMCEC also includes 5 observer countries, allowing for a wider engagement and cooperation with other states and entities interested in its objectives. This inclusive and member-driven approach has been key to COMCEC's efforts to promote economic growth and development across its member states.

The year 2024 marks a significant milestone for COMCEC as it celebrates its 40th anniversary. Over the four decades of its existence, COMCEC has been instrumental in fostering economic cooperation and commercial collaboration among the member countries. Through its various programs, projects, and initiatives, COMCEC has worked tirelessly to address the economic challenges facing OIC Member Countries while also seizing opportunities for growth and development. This 40th-year celebration not only reflects on past achievements but also sets the stage for future initiatives to enhance the economic well-being of its member states and their people.

In line with its mission to develop a common understanding and approximate policies to address and find solutions to the economic and social challenges of the Islamic Ummah, one of the primary goals of the COMCEC is to provide OIC Member Countries with the enabling ground to share their knowledge and learn from each other's experiences in crucial cooperation areas.

In pursuit of this objective, in addition to a wide range of evidence-based analysis provided by its research reports and guidelines in many sectors, COMCEC has come up with this comprehensive book which has been meticulously crafted, benefiting from the insights and contributions of international experts across various fields from around the globe.

Celebrating COMCEC's 40th anniversary, this landmark publication is organized into different thematic sections, each corresponding to one of the cooperation areas identified by the COMCEC Strategy: trade, financial cooperation, poverty alleviation, agriculture, transport and communications, tourism, and digital transformation.

The book compiles 31 articles, each penned by renowned authors with deep expertise in their respective topics. These articles not only provide a rich source of information on the current state of affairs in each domain but also offer forward-looking perspectives and innovative solutions to drive progress within the OIC Member Countries. Through this comprehensive collection, the book aims to serve as a valuable input for policymakers, researchers, and practitioners. Valuable editorial contributions to these articles were made by Assoc. Prof. Dr. Belgi Turan, Prof. Dr. Çetin Gürel, Prof. Dr. Mehmet Asutay, Assoc. Prof. Dr. Mücahit Özdemir, and Dr. El Amri Mohamed Cherif.

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## The Role and Importance of Statistics in the Economic and Social Development of OIC Member Countries

*Zehra Zümrüt SELÇUK<sup>1</sup>*

### Introduction

In today's global economy, we are witnessing a significant transformation driven by technological advancements, environmental challenges, geopolitical conflicts, and demographic shifts. These complex issues transcend borders, demanding collaborative efforts that foster cooperation beyond individual interests. Emerging technologies such as artificial intelligence, blockchain, and the Internet of Things are revolutionizing industries, altering supply chains, and changing the nature of work ultimately reshaping the economic and social environment. Within this global landscape, Organisation of Islamic Cooperation (OIC) Member Countries share both common challenges and unique opportunities. The key to navigating these shifts lies in how the countries can utilize new technologies to build economic resilience, empower their youth, and address critical issues related to economic transformation (SESRIC, 2024a).

According to the well-known Wisdom Hierarchy (data-information-knowledge-wisdom), reaching wisdom is not possible without first gathering data, transforming it into information, and integrating it into knowledge. Understanding the role of data and statistics in this context is crucial, as they form the foundation for informed decision-making and strategic planning in the economic and social development of OIC Member Countries.

Statistics play a central role in shaping effective national development strategies and plans, serving as the backbone of evidence-based decision-making. For governments and institutions, reliable data is crucial in identifying social and economic trends, measuring progress, and addressing challenges in a timely manner. In development planning, statistical data allows policymakers to assess the needs of different sectors—such as agriculture, health, education, finance, trade, infrastructure, and industry—ensuring that resources are allocated efficiently. Moreover, the ability to measure sustainable development through the Sustainable Development Goals (SDGs) indicators and others such as GDP growth, unemployment rates, poverty levels, and trade balances provides a clear picture of the economic stance at the national and global levels, enabling leaders to implement policies that drive sustainable growth.

Beyond mere data collection, statistics serve as the inevitable substance for evaluating the effectiveness of strategies, programmes and policies. By analysing statistical trends over time, governments can determine whether interventions are achieving their desired outcomes or if any adjustments are necessary. This evidence-based approach is vital for addressing long-term challenges such as poverty, inequality, and unemployment. In an increasingly interconnected world, comparative statistics allow countries to benchmark themselves not only against other OIC Member Countries but also against regional and global peers, fostering a competitive environment while identifying areas for improvement. For OIC Member Countries, which face a range of development challenges, a strong national statistical system is indeed critical to designing and implementing successful policies.

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This paper aims to explore the significant role of statistics in the economic and social development of OIC Member Countries, with a focus on the efforts of the Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC) along with the OIC Statistical Commission (OIC-StatCom), and the Standing Committee for Economic and Commercial Cooperation (COMCEC). SESRIC is at the forefront of advancing statistical capabilities of the Member Countries as a subsidiary organ of the OIC, with a mandate on promoting and facilitating the collection, collation, and dissemination of sound, accurate and reliable data to guide decision-making processes. In this sense, SESRIC facilitates and conducts training courses, workshops and similar activities that enhance the statistical capacities of the Member Countries, while OIC-StatCom fosters coordination and harmonization of statistical activities across the OIC. Moreover, with the guidance of the COMCEC Strategy, OIC Member Countries are supported to improve their national statistical capacities in the fields of agriculture, finance, poverty alleviation, trade, transport and communications, tourism, digital transformation and small and medium enterprises (SMEs) through the COMCEC Project Funding mechanism.

## **The Importance of Statistics in Economic and Social Development**

The 2030 Agenda for Sustainable Development continues to guide global efforts toward building a more sustainable, inclusive, and resilient future for all. As we head into 2024, the window to achieve the Sustainable Development Goals (SDGs) is narrowing, making it critical for OIC Member Countries to accelerate efforts in areas that still lag behind. With ongoing global challenges such as economic uncertainty, regional instability, and inflationary pressures, the path forward demands renewed commitment and strategic interventions (SESRIC, 2024b).

Recognizing the critical role that statistics play in economic planning, monitoring, and sectoral development, robust statistical systems are essential for driving informed policy decisions, evaluating economic progress, and ensuring that key sectors contribute effectively to national and regional economic objectives.

## **Economic Planning and Policy Making**

Accurate and reliable statistics are fundamental to effective economic planning and policy formulation. For policymakers, data-driven decisions are essential to identify priorities, allocate resources efficiently, and track progress toward development goals. In the context of economic planning, statistics offer a comprehensive view of key macroeconomic indicators such as GDP growth, trade balances, employment rates, and inflation. These indicators not only reflect the current state of the economy but also provide insights into underlying trends that can influence long-term development strategies. For instance, inflation data informs monetary policies, helping central banks and governments maintain price stability, which is critical for economic growth. Without these datasets, economic policies would be based on assumptions rather than evidence, increasing the risk of resource misallocation and hindering development.

National Statistical Offices (NSOs) play a pivotal coordination role at both national and global levels. Along with other national stakeholders in the statistical system, NSOs are essential institutions for effective decision-making. They also play a crucial role in tracking and assessing development policies. When used properly and timely, statistics produced

by NSOs and other relevant constituents of the national statistical system can help identify the inputs that lead to development outcomes. In other words, NSOs and other actors of the official statistical system help us understand what works and what doesn't when it comes to development.

In OIC Member Countries, where economic structures are diverse and development needs vary, the importance of robust statistical systems cannot be overstated. Accurate data empower national authorities to craft strategies that address the specific economic challenges of their countries, whether they are related to industrial diversification, trade expansion, or employment generation.

## **Monitoring and Evaluation of Economic Progress**

Statistics play a critical role in monitoring and evaluating economic progress, enabling countries to measure the impact of their policies over time. By tracking changes in key indicators such as GDP, inflation, and employment rates, governments can assess whether their strategies are fostering the desired economic outcomes. This process of monitoring allows for timely adjustments to policies and programs, ensuring that they remain responsive to changing economic conditions.

International comparisons facilitated by global statistical benchmarks are vital for assessing a country's position in the global economy. OIC Member Countries, for instance, benefit from comparing their economic performance with global peers through internationally recognized indicators such as the World Bank's Ease of Doing Business Index or the Human Development Index (HDI), among others. These comparisons not only highlight strengths and weaknesses but also foster a culture of accountability and competitiveness, driving countries to adopt best practices for economic development.

As part of its foundational mandate, SESRIC is dedicated to ensuring the availability of robust statistical data that reflects the true potential, needs, and capacities of each member country of the OIC. By providing reliable data, SESRIC empowers decision-makers with the tools needed to formulate effective, evidence-based policies that drive progress. This data plays a crucial role in analysing and evaluating the economic and social developments across the Member Countries. It enables the creation of proposals that initiate and strengthen cooperative projects and integration initiatives, fostering development and reinforcing the bonds among OIC Member Countries.

The OIC Statistics (OICStat) Database, which serves as the first and only international statistics repository on OIC Member Countries, is periodically maintained to ensure the dissemination of the most up-to-date data through the inclusion of new indicators and categories for the OIC Member Countries. Currently hosting 1,852 indicators under 27 categories on various socio-economic sectors, with data dating back to 1970, the OICStat provides specific indicators that measure the level of cooperation among Member Countries, such as intra-OIC merchandise exports and imports, as well as international tourism arrivals.



## Sectoral Development and Economic Diversification

Sectoral development is another area where statistics are indispensable, as they provide insights into the performance of key industries such as agriculture, manufacturing, and services. These sectors are the building blocks of any economy, and their growth or decline can significantly impact overall economic progress. Data-driven strategies are essential for boosting productivity, enhancing competitiveness, and ensuring that each sector contributes meaningfully to national economic objectives.

For the agriculture sector, the COMCEC Strategy clearly states that “*deficiencies related to agricultural data collection prevent making sound analysis of the sector*” (COMCEC, 2012). For example, statistics on crop yields, land use, and agricultural productivity help governments implement policies that promote food security and improve the livelihoods of rural populations. Similarly, in the industry sector, data on production levels, manufacturing outputs, and export trends inform policies that aim to enhance industrial competitiveness and innovation. For the services sector, which includes tourism, finance, and information technology, statistics provide valuable insights into growth trends, consumer behaviour, and employment patterns, helping to drive innovation and expansion in this increasingly critical area.

In the context of OIC Member Countries, sectoral data is particularly important for economic diversification. Many OIC Member Countries are heavily reliant on a few key sectors, such as agriculture and energy, and lack sufficient economic dynamism, making them vulnerable to global price fluctuations. Reliable, up-to-date, and high-quality statistical data allow these countries to identify new opportunities in sectors like manufacturing and services, thereby creating more resilient and diversified economies. By leveraging statistics, OIC Member Countries can not only monitor sectoral growth but also develop strategies that foster competitiveness and innovation in each sector, ultimately contributing to broader economic development goals.

## Role of Data in Social Development

Statistics play a crucial role in measuring key aspects of social development, such as health, education, and social welfare. Data on life expectancy, literacy rates, and access to healthcare enable governments to assess the well-being of their populations and design targeted policies to address disparities. In OIC Member Countries, this information is vital for ensuring that resources are directed toward areas with the greatest need.

Overall, it is estimated that the OIC Member Countries as a group will not be on track to achieve any of the SDGs by 2030. Although some progress has been observed in SDG 1 (No Poverty), SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 6 (Clean Water and Sanitation), and SDG 16 (Peace, Justice, and Strong Institutions), these improvements are not sufficient to achieve the relevant SDG targets by 2030. Nevertheless, many OIC Member Countries have made significant strides in improving health outcomes and access to education. For example, the under-five mortality rate has sharply declined, and educational parity between boys and girls is now a reality in the majority of Member Countries. These advancements are a testament to the collective efforts of the OIC community (SESRIC, 2024b).

In this regard, accurate statistical data is essential for identifying vulnerable populations and designing poverty alleviation strategies. By providing insights into income levels, access to basic services, and income distribution, statistics help governments develop and assess social policies aimed at alleviation of poverty and inequality, ensuring that interventions are effective and equitable.

Additionally, labour market statistics are critical for analysing workforce trends, including employment rates, labour force participation, and skill gaps. This data informs policies that promote job creation and address unemployment, particularly among youth, helping OIC Member Countries to foster more inclusive and sustainable labour markets.

## Challenges of the Statistical Systems in OIC Member Countries

The NSOs in the OIC Member Countries play a crucial role in providing statistical services, including collecting, collating, compiling, processing, and disseminating official statistical information. This information meets the needs of their governments and other users concerning the formulation, implementation, monitoring, and evaluation of socio-economic development policies, plans, and strategies. However, they encounter several challenges in carrying out their functions, including:

- Under- and delayed financing
- Unaligned levels of statistical development
- Slower adoption of new technologies and statistical modernisation
- Increasing competition from non-official statistics providers
- Lack of statistical literacy among data users
- Insufficient communication between the NSOs and data users
- Inadequate coordination mechanisms within NSSs
- Difficulties in aligning NSSs with the regional/global statistical requirements
- Challenges in responding to data needs and demands during crisis times
- Difficulties in assuring quality in official statistics

Many OIC Member Countries face significant challenges in their statistical capacity due to persistent data gaps and issues with data quality. Reliable and up-to-date statistics are often lacking, making it difficult for governments to accurately assess key indicators such as GDP, health, or poverty levels. This problem is compounded by inconsistent methodologies and poor data management practices, which compromise the reliability of the data collected. Addressing these gaps is crucial for improving economic and social planning, as accurate data is the basis for evidence-based decision-making.

One of these challenges is the lack of trained professionals in the field of statistics which hampers the ability to produce high-quality data. Without adequate investment in technology and workforce development, statistical systems in OIC Member Countries will continue to face limitations in providing the data necessary for comprehensive development planning.

Additionally, the lack of coordination and harmonization in statistical systems across OIC Member Countries poses a significant challenge to comparability. Different countries often use varying methodologies and definitions when collecting data, which leads to inconsistencies that hinder cross-country comparisons. Institutions and platforms like SESRIC and the OIC-StatCom are working to address these issues by promoting international standards and fostering greater collaboration among OIC Member Countries. By improving the harmonization of statistical frameworks, OIC Member Countries can enhance the quality and comparability of their data, enabling more effective regional and global development strategies.

## Statistical Capacity Development and Partnerships

### OIC-Statistical Commission

Based on the Istanbul Declaration of the 2010 Meeting of the NSOs, the Member Countries of the OIC agreed to organise their regular meetings under the umbrella of the OIC Statistical Commission (OIC-StatCom). The OIC-StatCom aims to provide a platform for exchanging experiences and best practices among the Member Countries to build effective statistical capacity at the OIC level. It was decided that the Statistical, Economic and Social Research and Training Centre (SESRIC) would act as the Secretariat of the Commission as one of the two permanent ex-officio members, together with the Islamic Development Bank (IsDB).

Since its establishment, the OIC-StatCom has held 13 Sessions to discuss major issues and emerging topics in the fields of economic and social statistics, strategic and managerial issues, statistical capacity development, data governance and quality concerns, in collaboration with the regional and international institutions. The resolutions and strategic vision documents guide the work of the Commission and its members to create synergy by implementing projects and activities to improve national statistical capacities.

In its capacity as the Secretariat of the OIC Statistical Commission (OIC-StatCom), SESRIC facilitated the development of the Strategic Vision of the OIC-StatCom for 2030 (OIC-StatCom, 2020) in close consultation with the OIC-StatCom members. The Strategic Vision aims to facilitate and coordinate the cooperation and collaboration efforts of the OIC-StatCom members toward addressing the technical challenges they face in improving their national statistical systems.

With a Vision to *“Ensure Trustworthy and Responsive Statistical Data for All”*, the Members of the OIC-StatCom has agreed on the Mission statement as *“Strengthen the Statistical Cooperation among the OIC Member Countries towards Better National Statistical Systems”*.

The Strategic Vision of the OIC-StatCom for 2030 focuses on five key areas aimed at strengthening statistical systems in OIC Member Countries:



1. **Coordination of Statistical Cooperation and Collaboration:** This area emphasizes enhancing collaboration among NSOs and other data providers to ensure accurate, relevant, and timely data. Key objectives include strengthening the coordination role of NSOs and fostering collaboration with national, regional, and international stakeholders.
2. **Statistical Capacity Development:** Capacity building is crucial for OIC Member Countries to meet regional and global development agendas. This includes identifying statistical needs based on international frameworks and implementing capacity development activities aligned with both OIC and global goals.
3. **Statistical Modernization and Innovation:** To meet growing demands for high-quality, cost-effective data, OIC Member Countries are encouraged to modernize governance, adopt new data sources, and embrace digital transformation. Objectives focus on updating statistical frameworks and improving production and dissemination processes.
4. **Common Statistical Standards and Classifications:** Consistency in statistical systems is achieved through the harmonization of international concepts, definitions, and methodologies. The goal is to promote standardization and develop methodologies specific to OIC Member Countries.
5. **Statistical Quality Improvement:** Ensuring data quality is essential for its usefulness. This area focuses on producing high-quality, accessible, and reliable data, as well as improving the competencies of OIC Member Countries in using administrative registries for statistical purposes.

These strategic areas aim to build robust, modern, and harmonized statistical systems across OIC Member Countries to support informed decision-making and effective development policies.

The Strategic Vision 2030 was adopted during the 9<sup>th</sup> Session of OIC-StatCom held on 28 September – 01 October 2020. The document acts as a reference for the OIC-StatCom in formulating its Programme of Action for 2021-2025 and 2026-2030.

### **Statistical Capacity Building (StatCaB) Programme**

Accurate, timely, reliable, and consistent statistical data are of utmost importance for policymaking and strategy development in any country. OIC Member Countries have varying levels of capacity for producing statistical data in accordance with relevant internationally accepted statistical standards. Thus, the SESRIC Statistical Capacity Building (StatCaB) Programme for the NSOs of OIC Member Countries aims to match statistical needs and capacities of the NSOs and then organize training activities to close the statistical capacity gaps, thereby contributing to the improvement of National Statistical Systems (NSSs) of the Member Countries.

The StatCaB Programme was initiated in early 2007 and is the flagship capacity development programme of SESRIC. Within its framework, the Centre collects information from the NSOs of OIC Member Countries through the biennial StatCaB questionnaire to assess their needs and capacities. It then matches these needs and capacities and organizes statistical capacity development activities between the beneficiary and provider countries. Additionally, the Centre, in its capacity as the Secretariat of the OIC Statistical Commission (OIC-StatCom), regularly reports the implemented StatCaB activities to the Follow-Up Meetings and Annual Sessions of the OIC-StatCom.

By organizing statistical activities for the improvement of institutional and human resource capacities of the NSOs, the StatCaB Programme:

- Provides opportunities to transfer statistical knowledge among OIC Member Countries.
- Contributes to the harmonisation of national statistics production processes with the international standards and norms.
- Helps increasing development cooperation and maintaining a constructive dialogue among the OIC Member Countries.
- Presents a valuable, cost-effective, and results-oriented approach for developing capacities to produce statistics on SDGs.

Since 2007, SESRIC has organized more than 500 statistical activities, including short-term statistics courses, study visits, technical missions, and international workshops, with the participation of almost 12 thousand experts from the NSOs and other relevant constituents of the national statistical systems of the OIC Member Countries, following South-South and triangular cooperation approaches.

## Modernization and Digitalization

A major obstacle to statistical capacity building in OIC Member Countries is the limited technological infrastructure and the lack of skilled human resources. Many NSOs operate with outdated technology and insufficient financial resources, making collecting, processing, and analysing data efficiently difficult.

Embracing modern technology is key to improving the accuracy and efficiency of statistical systems. Big data, artificial intelligence (AI), machine learning (ML), and other technological advancements offer new opportunities for collecting and analysing large volumes of data quickly and accurately. For example, AI can help automate the processing of complex datasets, while big data can provide real-time insights that were previously unattainable. These innovations can significantly reduce costs and improve the timeliness of data, enabling NSOs to respond more effectively to the needs of policymakers and development planners.

## **Regional and International Cooperation**

Partnerships with global statistical bodies such as the United Nations Statistics Division, UN Economic Commissions, Eurostat, and relevant departments of regional and international organisations are essential for improving the quality and comparability of data in OIC Member Countries. These organizations offer valuable expertise, technical assistance, and resources that can support capacity-building efforts and promote the adoption of international statistical standards. By collaborating with these institutions, OIC Member Countries can enhance their statistical practices, align with global methodologies, and ensure that their data meets international benchmarks. Such collaboration also opens opportunities for OIC Member Countries to participate in global initiatives, furthering their integration into the international statistical community.

## **COMCEC Project Funding**

Within the framework of the COMCEC Project Funding (CPF), introduced by the COMCEC Coordination Office (CCO) in 2013 as a financing mechanism for projects submitted by the Member Countries and relevant OIC Institutions, SESRIC implemented several projects aimed at realizing the strategic objectives and outcomes of the COMCEC Strategy, as well as the relevant policy recommendations adopted by COMCEC Ministerial Sessions.

SESRIC projects funded by the COMCEC fall under various cooperation areas and were designed in accordance with sectoral themes determined by the CCO. The activities under these projects were geared toward increasing the human resources capacities of the relevant national institutions of the participating OIC Member Countries.

SESRIC projects funded by the COMCEC related to statistical capacity development are as follows:

- Enhancing National Capacities of OIC Member Countries in Poverty Statistics
- Improving Statistical Capacities of Tourism Sector in COMCEC Mediterranean and Gulf Region
- Improving Statistical Capacities of OIC Member Countries in Poverty Statistics
- Enhancing Food Security through National Food Balance Sheets

## **Conclusion**

Statistics play a fundamental role in driving both economic and social development in OIC Member Countries. Reliable and accurate data is essential for effective decision-making, policy formulation, and tracking progress on key development goals. Throughout this paper, we have explored how statistics support economic planning, sectoral development, poverty alleviation, and labour market analysis. In this context, OIC Member Countries face significant challenges in building robust statistical systems due to data gaps, limited infrastructure, and the need for better coordination.

The future of statistical development in OIC Member Countries depends on continued investment in human capital, technological innovation, and infrastructure modernization. By strengthening statistical capacity, embracing new technologies, and fostering regional and international cooperation, OIC Member Countries can build more efficient and reliable systems that meet the demands of the modern world and achieve the developmental goals set at the OIC and global levels. In the coming years, it will be crucial for the OIC Member Countries to focus on enhancing data quality, improving comparability, and addressing the emerging data needs driven by regional and global development agendas.

To ensure sustained progress, OIC Member Countries and relevant OIC Institutions should prioritize capacity-building initiatives, invest in modern technologies, and enhance coordination among national, regional, and international statistical bodies. A stronger commitment to harmonizing statistical standards will improve data comparability and quality. Global organizations should continue to provide technical support and resources to assist OIC Member Countries in their statistical development. These collective efforts will empower OIC Member Countries to produce the high-quality statistics necessary for informed policymaking and sustainable development in the future.

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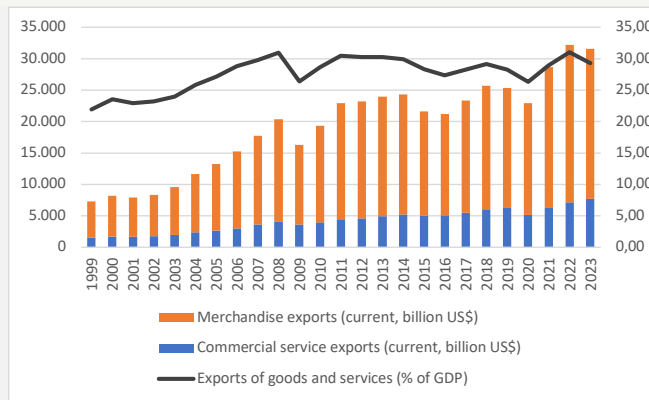
## Increasing Export Capacity in the OIC Member Countries

*Nazire Nergiz DİNÇER<sup>1</sup>*

### Global Trends

In recent years, global trade has shown a remarkable capacity to withstand and adapt to extreme disruptions, including escalating trade tensions, rising political uncertainty, and the unprecedented impact of the COVID-19 pandemic. These challenges have created a volatile environment for trade, yet the global economy has demonstrated impressive resilience, with the value of merchandise and commercial services exports reaching near-record highs in 2022-2023 as presented in Figure 1.

**Figure 1. World Exports in the last 25 Years**



*Note: Authors' elaboration.*

*Data Source: World Development Indicators*

However, this resilience is accompanied by significant transformations in the global trade landscape. Emerging trends are reshaping how goods and services are produced, exchanged, and consumed. The new challenges and opportunities in the world can be aggregated under three primary headings: (i) the shift towards services and digitalization, (ii) the increasing emphasis on sustainability, and (iii) evolving geopolitical dynamics. Indeed WTO (2024) summarize this as “The future of trade is services, digital, green – and it must be inclusive.”

Firstly, the **growing importance of services and digital trade** is one of the most significant trends reshaping global trade. The rapid expansion of digital services, particularly in areas such as telecommunications, financial services, and e-commerce, has become a major driver of global trade growth. This shift towards a more digitally-driven economy presents numerous opportunities for countries to diversify their export bases beyond traditional commodities and manufactured goods. For OIC Member Countries, capitalizing on this trend is crucial, as it offers a pathway to tap into the expanding global demand for digital services (SESRI, 2023). However, this shift also brings challenges, particularly in the need for substantial investments in digital infrastructure, cyber security, and the development of a skilled workforce capable of navigating the digital economy.

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The future of developing countries increasingly depends on their ability to enhance productivity in the services sector, which is becoming a crucial driver of economic growth and equity. While the countries such as China, South Korea, Taiwan, Singapore and Hong Kong followed a manufacturing-based export-led growth during their high growth development achievements, the global landscape has changed. It has become difficult for countries to compete in traditional industrial sectors due to advances in technology, automation, and the rising skill requirements. Services, however, —especially those that are labor-absorbing—present a new frontier for export growth. Due to improvements in productivity of the services sectors such as retail, healthcare, education, and personal services, developing countries can create high-quality jobs and diversify their economies. Moreover, the rise in the knowledge-based and the digitally delivered services would enable these countries surpass the limits of their often small domestic markets and to enter into the new markets, reduce their reliance on traditional commodities, and build a more sustainable and inclusive economic future. By investing in service-oriented strategies countries will increase exports, decrease unemployment and reduce income inequality (Rodrik and Sandhu, 2024).

Secondly, the **increasing emphasis on sustainability** is another critical factor influencing global trade dynamics. The global push towards a greener economy is driving demand for sustainable products, which in turn necessitates a significant transformation of traditional manufacturing processes and supply chain practices. There are many factors behind this shift such as consumer demand towards sustainable products, stricter environmental regulations and various international standards on sustainability. It is necessary for exporters to align with sustainable practices and international standards in order to gain a competitive advantage in the global market<sup>2</sup>.

Thirdly, **changing geopolitical dynamics** plays an important role in shaping global trade trends. The recent rise of trade restrictions and protectionist measures, related to the geopolitical tensions, affected exports significantly<sup>3</sup>. As a consequence of these developments regional networks became more important than global networks. This shift towards regionalization brings both advantages and disadvantages. Recent tensions between the US and China, the COVID-19 pandemic, and the Russia-Ukraine war have hurt trade integration efforts and increased trade fragmentation. Indeed, a recent study by Campos et al. (2023) estimates that the fragmentation of global trade into three blocs—Western, Eastern, and Neutral—could affect trade among them significantly. Trade would decrease by 22–57 percent in their most extreme scenarios. The study also indicates that welfare losses would be most severe in the Eastern Bloc, with the median country facing a welfare decline of up to 3.4 percent. For OIC Member Countries, understanding and adapting to these geopolitical shifts will be key to maintaining and enhancing their positions in the global trade arena.

The resilience of global trade is increasingly dependent on the ability of countries to adapt to these new realities. Success in this evolving context will hinge on how effectively countries can leverage technological advancements, align with global sustainability standards, and manage the risks associated with geopolitical shifts. Resilience is no longer just about recovering from disruptions; it is about proactive adaptation and strategic foresight in the face of continuous change.

2 For a discussion, see <https://unctad.org/news/sustainability-standards-trade-how-can-developing-countries-benefit>.

3 See <https://www.worldbank.org/en/news/feature/2023/08/29/protectionism-is-failing-to-achieve-its-goals-and-threatens-the-future-of-critical-industries>.

In 2023, regional disparities and sector-specific challenges appeared as important factors affecting trade. Some regions and industries have managed to recover and succeed, whereas the others were affected adversely from the negative economic environment. In developed economies, real household incomes and corporate revenues, as well as demand for trade-intensive manufactured goods have declined due to inflationary pressures. On the one hand, sectors such as electric vehicles and renewable energy technologies, like solar cells increase their share in world exports, due to the shift towards sustainable and innovative industries. Europe, on the other hand, experiences considerable challenges due to several factors such as high-energy prices and interferences in natural gas imports, worsened by geopolitical tensions such as the war in Ukraine (WTO, 2024).

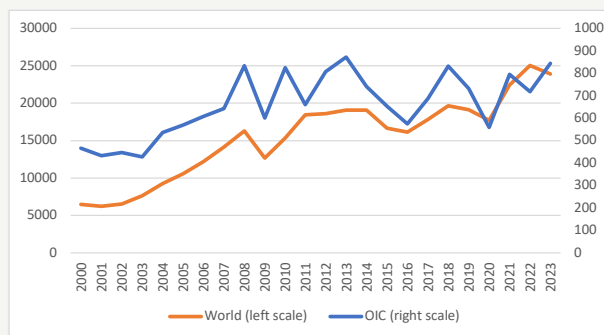
Multilateral cooperation appears as the most important trade enhancer in this complex trade environment. Countries have to follow more stable and transparent trade policies in order to overcome the drawbacks of fragmentation of global trade networks and the rise of protectionism. International collaboration, particularly in areas such as climate change, green technology, and trade policy coordination, is crucial to achieve inclusive, sustainable, and resilient trade. (IMF, 2024).

## Mutual Challenges of the OIC Members

Figure 2 displays the merchandise export trends for OIC Member Countries and the world from 2000 to 2023 in a comparative perspective. The OIC export trend (shown on the left scale) exhibits considerable fluctuations, particularly during the mid-2000s and early 2010s, likely due to the volatility in global energy markets, which heavily influenced the economies of many OIC countries. In contrast, the global export trend (shown on the right scale) follows a more stable and gradual upward trajectory, with fewer dramatic shifts. Although both trends show an increase in exports over time, the OIC's export levels demonstrate more volatility and sharper rises and falls compared to the more consistent global trend. The year 2023 shows continued growth in both OIC and global exports, reflecting ongoing recovery and expansion in global trade, but the scale difference underscores that while OIC exports are significant, they operate on a much smaller magnitude compared to global exports as a whole.

Unlike merchandise exports, commercial services exports of OIC countries show a similar trend with global exports as indicated by Figure 3. Despite the challenges posed by the COVID-19 pandemic, both global and OIC services exports have rebounded strongly, with 2022 marking a peak in services trade. This recovery underscores the resilience of the services sector and its critical importance in driving economic growth. For OIC countries, aligning with global trends and continuing to develop their services sectors—particularly in digital services—will be key to maintaining and enhancing their competitiveness in the global market.

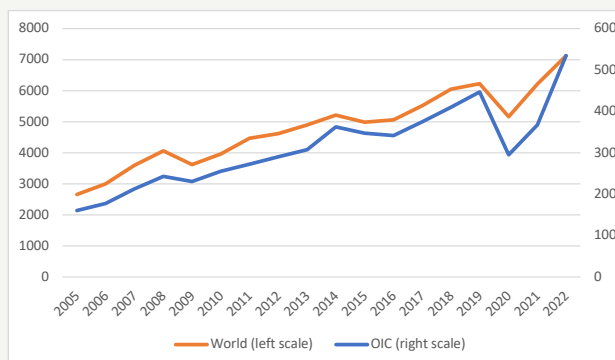
**Figure 2. OIC Merchandise Exports and World Merchandise Exports (billions of USD\$)**



*Note: Authors' elaboration.*

*Data Source: SESRIC and World Development Indicators*

**Figure 3. OIC Services Exports and World Services Exports (billions of USD\$)**



*Note: Authors' elaboration.*

*Data Source: SESRIC and World Development Indicators*

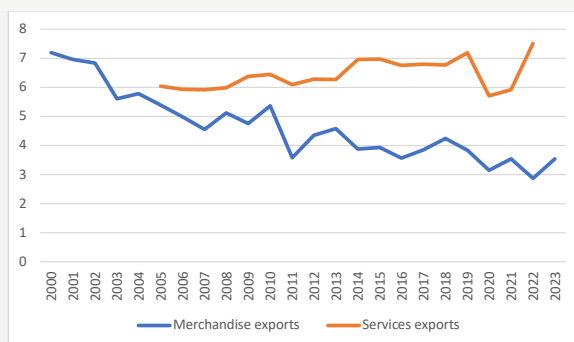
Figure 4 indicates a divergence in the performance of OIC countries in merchandise versus services exports. While their share in global merchandise exports has been steadily declining, their share in services exports has been more stable, with a significant recovery in recent years. This contrast highlights the growing importance of the services sector for OIC countries in maintaining and potentially increasing their role in global trade.

The declining share of the OIC merchandise exports in world exports indicates that the OIC countries face significant mutual challenges in increasing their exports. They should diversify their economies and enhance the competitiveness of their goods.

The first mutual challenge of the OIC countries is the limited basket of export commodities, namely oil and natural resources. Resource dependent economies are more vulnerable to global fluctuations and economic shocks.



**Figure 4. Share of OIC Exports in World Exports (%)**



*Note: Authors' elaboration.*

*Data Source: SESRIC and World Development Indicators*

The uneven development of infrastructure across OIC countries is the second mutual challenge. OIC countries have lower competitiveness due to inadequate transportation networks, insufficient port facilities, and underdeveloped digital infrastructure. Consequently, trade costs increase and competitiveness decrease. The negative effects of inadequate infrastructure are higher for landlocked OIC countries resulting in additional barriers to access international markets.

The third mutual challenge is the regulatory environment such as inconsistent trade policies, complex customs procedures, and a lack of harmonization with international standards within many OIC countries. Overcoming the regulatory problems by implementing and sustaining trade reforms would be more complicated for some of the OIC countries due to political instability and governance challenges.

The fourth mutual challenge, which would be an opportunity at the same time, is the growing global emphasis on sustainability. There is an increasing demand for green products and sustainable practices in the world. Many OIC countries, however, are not catching up with these international standards. Limited resources, technological constraints, and the high costs of the transition to more sustainable production methods are the difficulties that the OIC countries are facing and declining their shares in the global markets.

Finally, the last challenge is the geopolitical landscape. The rise of trade protectionism and geopolitical tensions had resulted in the fragmentation of global trade networks. It became more difficult for OIC countries to increase their export shares in the existence of the complex trade blocs. Regionalization trends in the world necessitates the OIC countries to strengthen intra-regional trade ties. However, it is not easy due to differences in economic structures, political systems, and levels of development within the OIC.



## Best Practices in OIC Member Countries

The top 10 OIC countries in terms of merchandise and services exports for 2022 are presented in Table 1. Saudi Arabia is the leading country in merchandise exports while the United Arab Emirates is the leading services exporter. Malaysia, Indonesia and Türkiye also rank highly in both sectors, reflecting their good performances in both goods and services exports. Qatar and Kuwait, on the other hand, have better performance in merchandise exports, due to their significant energy exports, whereas their services sectors lag their merchandise exports. Nigeria is the best performer country in the OIC Africa region.

**Table 1. Top 10 exporters among OIC countries in 2022**

| Country              | Merchandise Exports<br>USD, million \$ | Country              | Services Exports<br>USD, million \$ |
|----------------------|----------------------------------------|----------------------|-------------------------------------|
| Saudi Arabia         | 407,430                                | United Arab Emirates | 154,667                             |
| United Arab Emirates | 395,125                                | Saudi Arabia         | 90,285                              |
| Malaysia             | 352,338                                | Malaysia             | 31,893                              |
| Indonesia            | 320,219                                | Indonesia            | 31,683                              |
| Türkiye              | 254,170                                | Türkiye              | 31,574                              |
| Qatar                | 130,921                                | Iraq                 | 30,728                              |
| Iraq                 | 126,683                                | Qatar                | 23,086                              |
| Kuwait               | 100,241                                | Kuwait               | 21,981                              |
| Kazakhstan           | 85,544                                 | Kazakhstan           | 11,571                              |
| Nigeria              | 65,947                                 | Algeria              | 10,609                              |

**Note:** Authors' elaboration.

**Data Source:** SESRIC

### Saudi Arabia

Saudi Arabia is in the stage of transforming its economy by achieving economic diversification. The main strategy document of this reform package is "Vision 2030". The aim of the reforms is to decrease the oil dependency of Saudi Arabia and increase exports. The target exporting sectors are petrochemicals, mining, and manufacturing. The steps taken until now are investing in infrastructure, technology, and human capital, improvements in business environment, regulatory and legal basis, improving governance and developing special economic zones and industrial cities.

### **United Arab Emirates (UAE)**

The UAE became a global trade and logistics hub by utilizing its strategic location. The country has invested significantly in its ports, airports and other infrastructure. The UAE decreased its dependency in oil exports by investing in other sectors such as tourism, finance, and renewable energy. The resultant economic diversification increased its resilience to global economic shocks.

### **Malaysia**

The main exporting sectors of Malaysia are high-tech industries, electronics, and palm oil products. Malaysia has undergone reforms in order to attract foreign direct investment and increase export capabilities. Moreover, Malaysia is a hub for multinational corporations due to its governance framework, investments on education and skills development, and improved business environment. Malaysia has also invested in digitalization and won the ITC awards for “best use of information technology for digitizing the Malaysia International Halal Showcase in 2021”. During COVID-19, small and medium sized enterprise (SME) exports continued to increase within the halal industry, owing to this initiative. SMEs entered into new markets and widened their business networks in a more convenient and cost-effective manner. Moreover, regional trade agreements, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), paved the way to increasing exports in Malaysia.

### **Türkiye**

Türkiye has experienced a significant transformation in its production mosaic. The main export sectors in Türkiye were the traditional sectors of textiles and agriculture. In 2000 the main exports became automotive, electronics, and machinery. The strategic geographic location of Türkiye, the free trade agreements as well as the customs union agreement with the European Union were also effective in increasing its exports.

### **Nigeria**

Nigeria showed significant progress in diversifying its economy beyond oil. Agriculture (notably cocoa and sesame seeds), solid minerals, and manufactured goods became the new sectors that Nigeria has increased its exports. Strategic initiatives, including the promotion of Export Processing Zones (EPZs), active participation in the African Continental Free Trade Area (AfCFTA), and the implementation of key policy reforms, have significantly increased Nigeria’s global competitiveness.

## **Common Efforts of OIC Member Countries Related to Increasing Export Capacity**

Regional trade agreements and economic cooperation initiatives are always on the agenda of the OIC. The OIC plays a crucial role in promoting intra-OIC trade, with the goal of increasing trade among the Member Countries to 25 percent of their total trade which is around 19 percent now. Initiatives like the Trade Preferential System among the OIC Member States (TPS-OIC) aim to reduce tariffs and non-tariff barriers, facilitating easier and more cost-effective trade among the Member Countries.

The System, which has become operational as of July 1<sup>st</sup> 2022, has provided a solid foundation for enhancing multilateral trade among Islamic countries. The Agreement, currently involving 13 OIC Member Countries, facilitates the reduction of duties on a range of products and there are efforts to increase the number of countries signing the agreement. TPS-OIC and other various bilateral and multilateral trade agreements within the OIC region, is very useful to create a more integrated and cohesive market as well as increasing the exports.

Infrastructure development is crucial in increasing export capacity of OIC Member Countries. In this respect, investments in transportation networks, port facilities, and logistics capabilities have been increasing in OIC countries for facilitating goods trade. Islamic Development Bank (IsDB) finances infrastructure development projects across Member Countries.

Recognizing the need for a skilled workforce to support export growth, OIC Member Countries have focused on capacity building and skill development. Many countries are investing in education and vocational training programs aligned with the needs of export-oriented industries. Islamic Solidarity Fund for Development (ISFD) under the IsDB has been instrumental in supporting educational and skill development initiatives across member states. By improving human capital, these countries aim to increase the competitiveness of their export sectors and meet the demands of increasingly complex global markets.

There is a growing recognition among OIC Member Countries of the importance of sustainability in trade. Many countries are aligning their export strategies with global trends towards green and sustainable trade practices. This involves adopting environmentally friendly production methods, reducing carbon footprints, and meeting international environmental standards. Countries like Morocco and Malaysia have taken steps towards promoting sustainable agriculture and renewable energy exports. These efforts not only enhance export capacity but also position OIC Member Countries as responsible players in the global market, catering to the increasing demand for green products.

The OIC and its affiliated organizations, such as the Islamic Development Bank (IsDB), provide financial and technical assistance to Member Countries to help them enhance their export capacities. These programs support various aspects of trade, from infrastructure development to capacity building and market access. The IsDB's trade finance programs, for example, offer financial products designed to facilitate international trade, particularly for small and medium-sized enterprises (SMEs) in Member Countries. These initiatives help to level the playing field, allowing more OIC countries to participate in and benefit from global trade.

These common efforts reflect a coordinated approach among OIC Member Countries to address the challenges of increasing export capacity. By focusing on regional cooperation, infrastructure development, diversification, skills enhancement, technology integration, sustainability, and financial support, OIC countries are working collectively to strengthen their position in the global trade arena.

## **Practical Recommendations for Increasing Export Capacity in OIC Member Countries**

### ***Recommendation 1: Strengthening Regional Trade Integration***

OIC Member Countries would increase their exports via regional trade integration. The already existing Trade Preferential System should be expanded to cover more OIC Member Countries. Thereby, tariffs and trade barriers would decline, and exports would increase. Moreover, harmonizing regulations, standards, and customs procedures within the OIC region would also increase intra-exports.

### ***Recommendation 2: Developing Infrastructure and Logistics Networks***

Investing in infrastructure is necessary to increase exports in the OIC. Regional infrastructure projects would be developed among OIC countries. Transnational highways, railways, and port facilities would be supported by IsDB which would increase connectivity within the region. Improving digital infrastructure for e-commerce and trade facilitation would increase exports.

### ***Recommendation 3: Promoting Economic Diversification***

There are many countries that are oil-dependent within the OIC region. To decrease oil dependency and enhance resilience to economic shocks, diversification of production and exports is necessary. These countries should be investing in the sectors such as manufacturing, agriculture, and services according to their structure and comparative advantage and transform their economies, accordingly. Financial instruments, technology transfer, and capacity-building programs would be useful tools for realizing this transformation.

### ***Recommendation 4: Enhancing Human Capital and Skills Development***

Investing in education and vocational training is crucial to meet the needs of the export-oriented sectors and exporting companies. Establishing centers of excellence for trade-related skills and promoting public-private partnerships in education can help build a workforce that meets the demands of modern global markets. Additionally, countries should focus on improving language skills, digital literacy, and technical expertise to enhance the global competitiveness of their workforce.



***Recommendation 5: Fostering Technological Innovation and Digital Trade***

Investing in research and development (R&D) and using up-to-date manufacturing technologies are the necessary policies to increase exports and to penetrate new markets. E-commerce platforms, digital payment systems, and cyber security frameworks are supporting mechanisms for enhancing trade within a country.

***Recommendation 6: Aligning Trade Policies with Sustainable Development Goals***

Sustainability is the new trend in global markets and the OIC countries need to adopt green technologies, environmentally friendly products and sustainable practices to increase exports. Establishing green certification standards and sharing best practices in sustainable production within OIC countries would be possible by collaboration.

***Recommendation 7: Enhancing Access to Finance and Trade Facilitation***

In order to enter new markets, companies need to access to finance. OIC Member Countries would collaborate to finance exporters, particularly SMEs, by using trade finance, export credit guarantees, and Islamic finance products (COMCEC, 2022). Additionally, utilizing digital customs procedures, single-window systems, streamlined border management and other trade facilitation tools would decrease the trade costs and increase exports.

***Recommendation 8: Strengthening International Cooperation and Multilateral Engagement***

OIC Member Countries should actively engage in international trade negotiations and forums to advocate for favorable terms of trade and reduce barriers to their exports. Strengthening ties with other regional blocs and entering into strategic trade agreements with non-OIC countries can also open new markets and create opportunities for OIC exporters. Additionally, Member Countries should collaborate on sharing market intelligence, developing export strategies, and conducting joint trade missions to explore new markets.

***Recommendation 9: Establishing Monitoring and Evaluation Mechanisms***

OIC Member Countries could establish monitoring and evaluation mechanisms to achieve effective trade mechanisms and to reach their goals. The policies would be adjusted following the regular assessments. Using data analytics would improve the process.

***Recommendation 10: Promoting Cultural Diplomacy and Brand Building***

OIC Member Countries should build a strong brand identity for their products. Thereby they can both integrate their SMEs into the global market and increase demand to their goods. Enhancing cultural diplomacy for promotion purposes and associate quality, innovation, and tradition with their brands would be the key to increase exports.

In conclusion, the rise of services and digital trade, the growing importance of sustainability, and shifting geopolitical landscapes are the main drivers of global trade. The steps that the OIC Member Countries should take are (i) adopt digital and green economy requirements, (ii) diversify their export products, and (iii) enhance their multilateral cooperation. Thereby, OIC economies would prosper in an increasingly interconnected and dynamic world economy.



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## The Effect of Export Incentives on Trade Promotion in the Islamic World

*Abdelrahman Elzahi Saaid ALI<sup>1</sup>*

### Introduction

The historical legacy of Islamic countries in trade, combined with modern efforts, contributes to their economic resilience and enhances their global standing. Exporting goods and services overseas is critical to a nation's international presence and economic prosperity. The potential of export incentives to boost a country's export activities is not just a possibility but also a promising reality for Islamic countries, offering substantial financial gains. These countries can potentially recommend more than one incentive type to increase their export activities, highlighting the breadth of options available based on the level and quality of production and their competitiveness. The government might provide direct financial incentives through subsidies to its exporters to reduce costs and improve their competitiveness in the international market. Alternatively, it might lower import tariffs on raw materials used for producing goods for exports exporting goods to minimize the cost of production.

Although most Islamic countries impose high taxes to earn more revenue, certain tax exemptions are crucial in encouraging export-oriented businesses. These exemptions reduce the burden on exporters and make their products more competitive in the global market. They minimize production costs, increase exporters' profit margins, and encourage innovation. They attract domestic and foreign investors in export-oriented industries and encourage research and development to produce innovative products to capture new markets.

Another significant export incentive is export credit insurance, which plays a vital role in protecting exporters against export risks. This is particularly crucial for Islamic countries, and they can benefit from the Corporation for the Insurance of Investment and Export Credit (ICIEC) as a member of the Islamic Development Bank (IsDB), which offers Shariah-compliant insurance solutions that align with Islamic principles. Many Islamic countries, as in the case of North African countries, are isolated with only land borders, which are very suitable for designing Export Processing Zones, where specific incentives such as tax breaks, simplified customs procedures, and infrastructure support might be given to the companies engaged in export-oriented production. However, it is crucial to remember that these exporters might also need affordable financing and working capital, market access support, and capacity-building facilitation as additional incentives. These extra measures are beneficial and vital to economic prosperity and growth, and their implementation should be a priority.

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Hence, based on the above argument, export incentives are essential for Islamic countries. They stimulate economic growth by encouraging businesses to expand their operations and enter international markets. They also enable small and medium-sized enterprises (SMEs) to enter the export market, providing more opportunities for local citizens, including rural entrepreneurs, where more raw materials are available in Islamic countries.

## The Global Adoption of Exports Incentives

The global adoption of export incentives for international trade promotion is dynamic and varies by country. Some countries might adopt export subsidies to make their products more competitive globally. These subsidies can take the form of direct payments, low-cost loans, or tax exemptions on profits made from exports. Other countries might adopt financed promotion and advertising to encourage their local international businesses through international advertising campaigns to promote their exports to reach new markets and increase their global market share.

Trade agreements are another global export incentive that some countries might adopt to encourage international trade (Kyle W. et al., 2010). These agreements can reduce tariffs, provide preferential treatment, and create new market opportunities for exporters. At the global level, export incentives are highly recommended for emerging markets where private insurers may not operate, and businesses face higher risks. Despite the importance of export subsidies and other export incentives, it might lead to more disputes between the countries concerned, particularly in international trade. To avoid these disputable subsidies, countries might need to follow the rules that are designed by the World Trade Organization (WTO), such as subsidies that are contingent on export performance or the use of domestic over imported goods or avoid export subsidies that might distort markets, prevent efficient outcomes, and divert resources to less productive. Hence, all countries, including Islamic world countries, must follow the rules and regulations if they are part of the WTO, which monitors and regulates export incentives to ensure that they do not create unfair trade practices.

## Why do Export Incentives Matter for the Islamic World?

Export incentives play a crucial role in boosting the economies of Islamic countries by promoting local business's outreach to international markets. These incentives are essential for creating a more dynamic and resilient economy that can survive global economic fluctuations and ensure sustainable development. Many Islamic countries are rich in natural resources such as oil, gas, agriculture, and livestock. These resources are driven by economic growth. Export incentives help to stimulate this economic growth by boosting the volume of exports, which leads to a higher production level, creating more jobs and improving the living standards of the people in these countries.

Moreover, export incentives can facilitate economic diversification by promoting other non-oil sectors such as textile and technology instead of relying on a few industries like the petroleum countries. By reducing the cost of production through financial support, tax exemption, and subsidies, export incentives make local products more competitive, which might help Islamic countries gain a place in new international markets and expand their market shares. In addition, the export incentive increases the Islamic country's exports, leading to higher foreign currency earnings that can be used to import essential foreign goods and services, stabilize the national currency, and improve the balance of payment. To integrate themselves into the global market, Islamic countries need to focus on promoting their exports through export incentives, trade agreements among them and with the rest of the world countries, and infrastructure development.

Engaging in the Organization of Islamic Cooperation (OIC) intra-trade and the rest of the world exposes domestic businesses to technology transfer and learning the best business practices that foster innovation and improve productivity. While some Islamic countries have achieved significant economic growth, others need help despite holding more economic resources. Addressing these challenges through comprehensive export promotion might mitigate them and induce economic growth to face their high unemployment.

## **The Importance of Trade Promotion for the Islamic World**

While export incentives are a form of economic assistance of governments, provide to firms or industries to keep domestic products competitive globally, trade promotion is marketing activities or campaigns by the producers to sell their products or promote their services to end consumers. Like export incentives, trade promotion is also essential for stimulating economic growth and enhancing the competitiveness of businesses in both domestic and international markets (Octavian-Liviu, 2014).

Trade promotion is vital for OIC Member Countries since it helps producers expand their reach and grow beyond their local market. Trade promotion boosts business sales and revenue and hence improves the national economy. Islamic countries need to encourage businesses to run effective trade promotion that leads to solid business visibility, enhances customer loyalty and business competitive advantage, and makes the Islamic country's producers more innovative, which eventually leads to positive contributions to economic growth by increasing the exports, creating more jobs and generating hard currency earnings.

OIC Member Countries must employ multiple trade strategies to promote their exports and enhance their global market reach to achieve influential trade promotion. In addition to the export incentives already discussed in the previous paragraph, engaging in bilateral and multilateral trade agreements among them and with the rest of the world is one of the trade promotion strategies that reduces market obstacles and enhances business visibility.

Moreover, Islamic countries might use their insurance institution or benefit from ICIEC to provide credit insurance facilities to help their businesses penetrate new markets by mitigating the risk associated with going overseas trade. Establishing a trade promotional organization might also be a reasonable strategy for these countries, as it helps identify business opportunities and understand the international market environment and requirements. Establishing an export academy to offer capacity building to target businesses might also improve their export capabilities and increase their understanding of global trade standards.



Finally, the promotion also needs to be implemented by encouraging their business to explore diverse markets and adopt modern technologies and innovative ways of doing business to enhance their export competitiveness. Trade promotion is vital for exporters and economies, driving growth, competitiveness, and sustainability. These strategies help OIC Member Countries strengthen their export sectors, boost economic development, and achieve greater integration into the global economy.

The Islamic countries are engaged in regional and global exports, particularly raw materials such as agricultural products, gas, and crude oil. The Islamic world has held historical global economic influence since the 8<sup>th</sup> century, and its market extended as a unified economic bloc from the Atlantic Ocean to Central Asia. The historical use of the unified monetary system, as in the gold dinar and the removal of the political boundaries, played a critical role in expanding trade and commerce during the Islamic Golden Age. Islam encourages and emphasizes trust and honesty when dealing with trading, which plays a positive role as an additional spiritual export incentive. Hence, the Islamic world's economic success was rooted in its power and adherence to ethical principles.

## The Natural Resources of the Islamic World

Natural resources play a crucial role in the development of any country. Its availability can significantly impact a country's exports. Countries with abundant natural resources, such as Africa, often rely heavily on exporting their resources, such as minerals, oil, and agricultural products globally. Most Muslim-majority countries own considerable natural endowments, which might enable them to play a vital role in the global export market. They own approximately 75% of the world's total oil reserves, led by Saudi Arabia, with about 18% of the world's reserves, followed by Iran, Iraq, Kuwait, the UAE, Libya, and Nigeria. Oil export revenue significantly contributes to the GDP of several Islamic countries, with Saudi Arabia being the highest earner in 2018 (Farooqi et al. (2022)).

Moreover, OIC Member Countries have diverse agricultural resources, particularly Indonesia, Nigeria, Pakistan, Türkiye, Iran, Bangladesh, and Sudan. Despite this, more than half of the Muslims rely on food imports due to poor coordination among OIC Member Countries and limited development of their land. More effort should be performed to develop their natural resources and transform them into industrialization to add value, compete in the global market, and reduce food importation. The Islamic world must also adopt the best method for managing freshwater and utilize suitable seas and oceans in their territories to contribute to international trade.

While Islamic countries possess significant oil reserves and agriculture, potential food security, freshwater resources, and strategic water transportation routes are still struggling to achieve a considerable impact in exporting more valuable goods than just raw materials (Abdul-Mumin and Elmira, 2014). Furthermore, the Islamic world must use its cultural background to induce production and trading, which might boost exports positively. Islam encouraged trade through ethical principles, trust, and innovation, contributing to economic growth and cultural exchange. Since the Islamic Golden Age, several factors, including the Islamic world's geographical location and seas and land trade routes such as the Silk Road, Red Sea Route, Persian Gulf Route, and Indian Ocean, have played crucial roles in connecting Islamic countries and the different regions with each other and hence promoting intra-trade and international business. These trade routes promoted commerce and fostered cultural exchange and innovation.

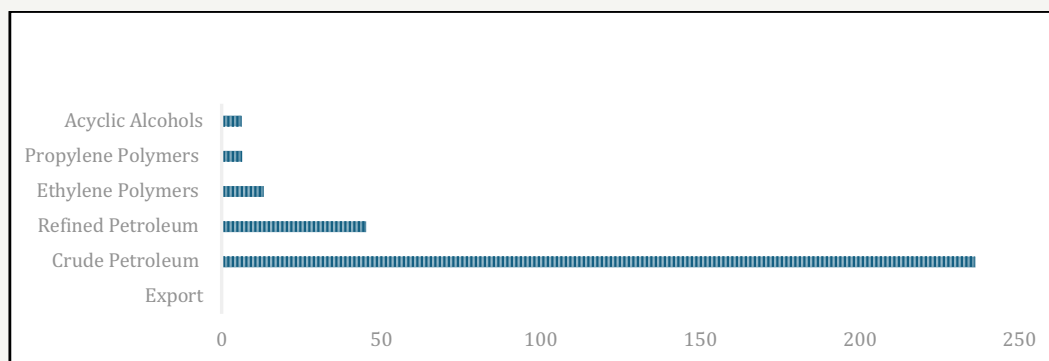


## Type of Export Incentives Adopted in Selected Countries of the Islamic World

### Saudi Arabia Export Incentives Program

Saudi Arabia's international business is dynamic and influenced by global economic shifts and regional partnerships. It plays a vital role in global trade, with a wide range of exports and imports. Figure 2 shows that its primary exports are not limited to crude oil, refined oil, ethylene polymers, propylene polymers, and acyclic alcohol. In May 2024, Saudi Arabia exported SAR 104 billion and imported SAR 67.6 billion, resulting in a positive trade balance of SAR 36.6 billion. Saudi Arabia's major imports are mineral products, chemical products, metals, transport equipment, and machinery. Moreover, between May 2023 and May 2024, Saudi Arabia's exports increased by SAR 7.53 billion (7.79%), while imports rose by SAR 2.04 billion (3.11%)<sup>2</sup>.

**Figure 1: Saudi Arabia's Main Export Items in Billions**



**Source:** Saudi Ministry of Economy and Planning Annual Reports

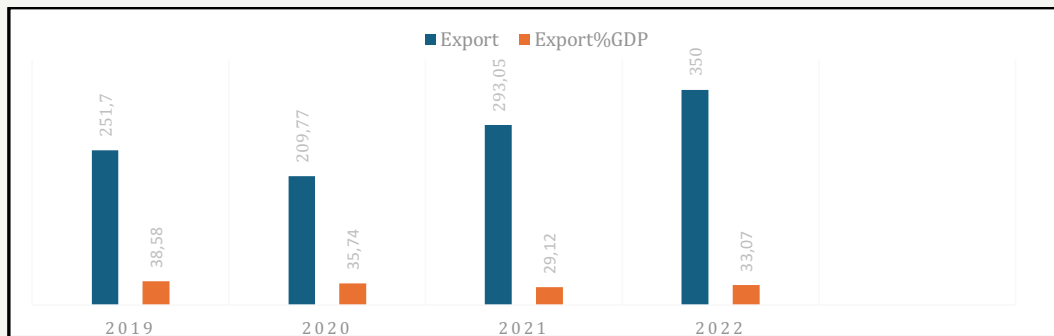
Saudi Arabia recognized the importance of export incentives early, mainly when the country decided to diversify its exports to attain sustainable growth and reduce its dependence on crude oil exportations. In this regard, Saudi Arabia has adopted various strategies to promote economic diversification and enhance their non-oil sectors. This involves developing non-oil sectors, creating jobs in the private sector, and increasing productivity. The government-initiated Exports Incentives Program aims to assist local exporters in entering and expanding into global export markets. One applicable export incentive Saudi Arabia uses is reimbursement of the fees. The government will reimburse a percentage of costs for some export-related activities such as product registration, participation in trade fairs, marketing and advertising, and product certification. These include reimbursing other export activities such as e-commerce listings, potential buyer visits, legal support, and specialized export training fee reimbursement. In addition, the Saudi government also made an incentive program to encourage local producers to expand through local promotion to produce products primarily for exportation.

<sup>2</sup> The State of Saudi Economic Report (2022), [chrome-extension://efaidnbmninnibpcapjpcglclefindmkaj/https://mep.gov.sa/files/en/KnowledgeBase/EconomicReports/Documents/State%20of%20the%20Economy%202022%20EN.pdf](https://mep.gov.sa/files/en/KnowledgeBase/EconomicReports/Documents/State%20of%20the%20Economy%202022%20EN.pdf)

## Türkiye's Export Incentives Program

Türkiye is playing a significant role in global trade. Türkiye's export landscape reflects its diverse industrial base and solid trade relationships. Refined petroleum, automobiles, jewellery, auto parts and accessories, and delivery trucks represent the top exporting categories. In addition, the country is the world's biggest exporter of raw iron bars, hand-woven rugs, cement, wheat flour, and Borates. Türkiye's major export destinations are Germany, the United States, Iraq, and Italy.<sup>3</sup> Figure 3 shows Türkiye's export trend, which has seen significant changes in recent years due to several challenges. The country has faced currency crises and weakened demand since 2023, sanctions and export control due to the Russia-Ukraine War, and high and persistent inflation. Despite these challenges, Turkish exporters have adopted several strategies to adapt and continue to navigate the global market.

Figure 2: Türkiye's Export as %GDP in Billions



Source: Reports of Türkiye's Ministry of Trade

The exporters adopt a target market diversification strategy to overcome geopolitical instability and currency fluctuations, avoiding dependence on a single market. In addition, the Turkish exporter also invests in creating innovative products, strengthening the chain, and engaging in ineffective collaboration with trade associations and the concerned government bodies. The country also adopts various export incentives provided by multiple entities, including the Ministries, KOSGEB, and Türk Eximbank, which are provided for exporting companies to increase their exports and achieve a sustainable export structure—these incentives, including e-export and micro-export support.<sup>4</sup> Türkiye's Export Incentives program is crucial in **boosting** export activities.

Ministry of Trade of Türkiye has designed an Export Incentives program that is classified as an export incentive for goods or services to boost exports. Goods export incentives include various product incentives encouraging exporters to face trade obstacles and penetrate the international market. There are five main categories of export incentives applied by the Turkish Ministry of Commerce to enable exporters to sell their products in the global market. Firstly, the government provides financial support and vital incentives to boost and

3 Türkiye Ministry of Trade (2024), Foreign Trade Data Bulletin, [chrome-extension://efaidnbmnnpbpcjpcglclefindmkaj/https://www.trade.gov.tr/data/6204c5c413b8768824d6f280/Bulletin%20Eng%20August\\_2024.pdf](https://www.trade.gov.tr/data/6204c5c413b8768824d6f280/Bulletin%20Eng%20August_2024.pdf)

4 Report No. 82307-TR (2014), Türkiye's export promotion programs, [chrome-extension://efaidnbmnnpbpcjpcglclefindmkaj/https://www.worldbank.org/content/dam/Worldbank/document/eca/Turkiye/tr-cem-trade-eng](https://www.worldbank.org/content/dam/Worldbank/document/eca/Turkiye/tr-cem-trade-eng)

enhance Türkiye's overseas trade. The financial support incentives program offers export preparation, development, and international branding costs. Secondly, the country also encourages exports to enter new markets.

In addition to that, the government also encourages innovation through supporting investments with high R&D content. The government also provides special incentives that reflect the country's regional diversity to reduce regional disparities. These incentives promote investments in less developed regions, reducing regional development disparities and fostering balanced economic growth. As in other countries around the globe, Türkiye's government provides tax exemption incentives, making goods produced more competitive in international markets. In addition to other Service Export Incentives, such as technical consultancy incentives, are provided in the education, health, health tourism, informatics, film, cinema and documentary, broadcasting, logistics, and management consultancy sectors.

Overall, these incentives are crucial for Türkiye's economic strategy, aiming to increase exports, attract foreign direct investments, and support sustainable economic growth, and as such, have helped Turkish companies enhance their competitiveness, expand their operations, and increase their presence in international markets.

## Malaysia's Export Incentives Program

Malaysia is a Muslim-majority country with a diverse range of products and is a significant player in the global export market. In June 2024, Malaysia's exports reached MYR 126 billion, with substantial contributions from integrated circuits, refined petroleum, and computers. The country has steadily increased exports to key destinations such as the United States, China, and Singapore. Malaysia's export sector is crucial for its economy, contributing significantly to GDP and providing employment opportunities. The government continues to support exporters through various incentives and programs to maintain and enhance this growth. Despite this support, the country's exporters face more challenges that might impact their competitiveness, such as meeting the international standards for their products, geopolitical tension between the US and China, workforce shortages, and market competitiveness.

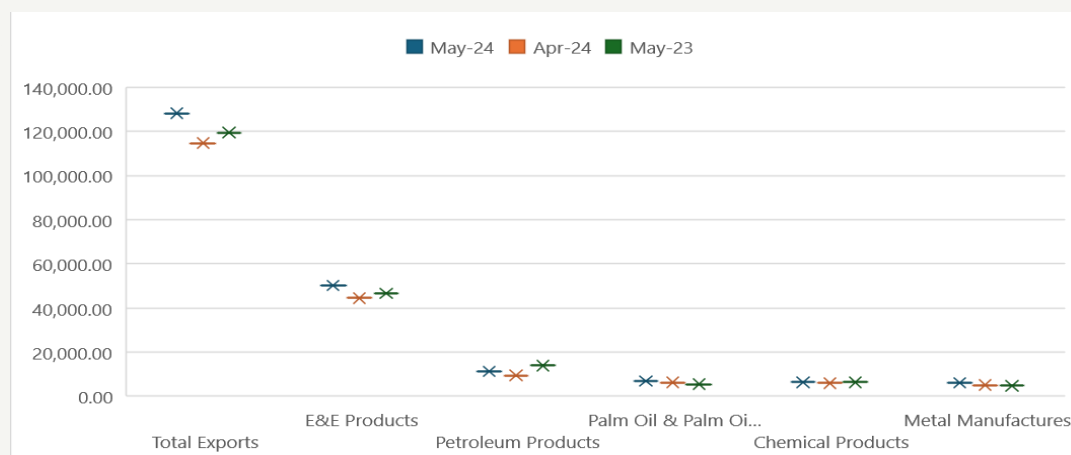
Driven by a recovery in global trade and production activities, Figure 3 shows that Malaysia's export sector is showing promising growth in 2024, at least in its essential export products, the electrical and electronic (e&e), palm oil, and palm oil-based and machinery, equipment, and parts. These main exporting Malaysian products showed strong performance, contributing significantly to export growth. These trends (Figure 3) indicate a robust recovery and a positive outlook for Malaysia's export sector in 2024<sup>5</sup>. To ease the export challenges, Malaysian exporters might need more support to meet the international standard for their products, compete with other countries offering the same products, and gain market access.<sup>6</sup>

5 Malaysia External Trade Development Corporation (2024), Trade Performance, <https://www.matrade.gov.my/en/myexport/216-malaysian-exporters/trade-performance-2024>

6 Malaysian International Trade Administration (2024), Malaysia Country Commercial Guide, <https://www.trade.gov/knowledge-product/malaysia-market-challenges>

Therefore, Malaysia offers multiple export incentives to encourage the development of its export sector by boosting export volume, exploring new markets, and improving the quality of exports. Tax exemptions represent one of the most crucial export incentives the Malaysian government uses to boost its international business—additional incentives for significant increases in exports, entering new markets, or achieving excellence. The government also might pay a Promotion of Exports Expenditure (PoE) allowance, which allows companies to claim tax deductions for expenses related to the promotion of exports. Moreover, an allowance of 60% on qualifying capital expenditure can be offset against 70% of statutory income. These incentives are designed to boost Malaysia's export volume, explore new markets, and improve the quality of exports.<sup>7</sup>

**Figure 3: Malaysian Export Trend as of May 2024 & May 2023**



**Source:** Malaysia External Trade Development Corporation

## The Role of ICIEC in Promoting Export Credit Insurance (ECI) Incentives

An essential factor that helps promote international trade is the Export Credit Insurance (ECI) incentive. Export Credit Insurance is a financial tool that protects the exporters against foreign buyers' default. ECI helps mitigate commercial and political risks, allowing exporters to offer buyers an open account. This risk-free payment minimization helps the exports to provide competitive prices, encouraging the importer to buy more.

Moreover, ECI enhanced export financing. When export receivables are insured, lenders are more willing to increase the exporter's borrowing capacity and offer more attractive financing terms. As shown before, ICIEC has provided ECI to all Islamic world countries since its establishment in 1994<sup>8</sup>.

<sup>7</sup> Malaysian International Trade Administration (2024), Export incentives regime of Malaysia, <https://www.accaglobal.com/my/en/student/exam-support-resources/professional-exams-study-resources/p6/technical-articles/export-regime.html>

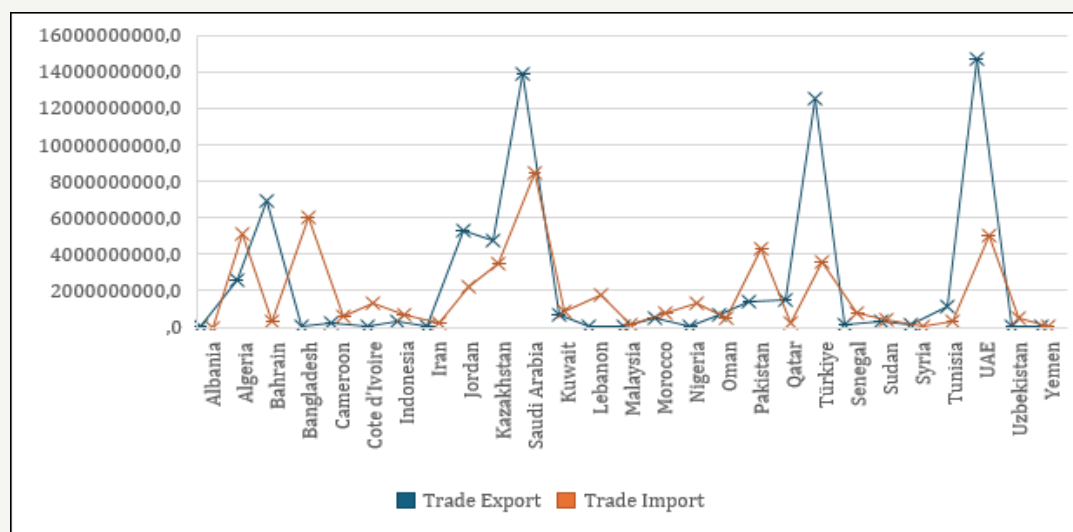
<sup>8</sup> ICIEC Annual Report (2023) <https://iciec.isdb.org/>



It provides export credit insurance incentives based on Shariah, enabling production against the risk of non-payment by foreign buyers and promoting exports and imports in ISDB member countries. Its primary mission is to facilitate trade and investment by providing insurance solutions that mitigate foreign direct investment and trade-related political and commercial risks and, therefore, reducing the non-payment risk for Islamic countries.

Figure 4 shows the significant contribution of ICIEC to some Islamic countries in promoting exports and imports since its inception. It's recommended that all Islamic countries join and benefit from these vital services that Shariah enables if they promote their exports. This support is essential for sustainable economic development. It aligns with members' broader development agendas and strengthens economic relations between member countries of the Organization of Islamic Cooperation (OIC) by promoting intra-OIC trade and investments.

**Figure 4: The Role of ICIEC in Promoting Export and Imports in Selected Countries**



**Source:** ICIEC Annual Report (2023)

## Conclusion

This article investigates the effect of export incentives on trade promotion in the Islamic world, for which export might be vital to its economic resilience and enhance its global presence. Islamic world's economic success was rooted in its power and adherence to Islamic ethical principles since Islam emphasizes trust and honesty when dealing with trading, which plays a positive role as an additional spiritual export incentive. Exporting goods and services overseas is critical to a nation's economic prosperity. Therefore, export incentives are essential for creating a more dynamic and resilient economy that can survive global economic fluctuations and ensure sustainable development. Similarly, trade promotion is also vital for exporters and economies, driving growth, competitiveness, and sustainability.



This article shows that most Islamic countries own considerable natural endowments, which might enable them to play a vital role in the global export market. Hence, suitable export incentives might boost their activities and are expected to be a potential game-changer for their economic growth and prosperity. Moreover, the article studied three selected OIC member countries, Saudi Arabia, Türkiye, and Malaysia, as well as one export credit insurance services provider, the ICIEC. The results show that these selected countries recommend more than one incentive to increase their export activities, showcasing the breadth of options available based on the level and quality of production and their competitiveness.

Saudi Arabia recognized the importance of export incentives early on and adopted various strategies to promote economic diversification, enhance their non-oil sectors, and reduce its dependence on crude oil exportations. Likewise, Türkiye, which plays a significant role in global trade, adopts five main categories of export incentives to enable exporters to sell their products in the worldwide market, aiming to increase exports, attract foreign direct investments, and support sustainable economic growth, and as such, have helped Turkish companies to enhance their competitiveness, expand their operations, and increase their presence in international markets.

Finally, Malaysia is a Muslim-majority country with a diverse range of products and is a significant player in the global export market. The government continues to support exporters through various incentive programs to maintain and enhance this growth. It offers multiple export incentives to encourage the development of its export sector by boosting export volume, exploring new markets, and improving the quality of exports. Likewise, the investigation in the research paper also reveals that the ICIEC has played a vital role in helping OIC member countries by providing them with export and import credit insurance, hence contributing more to boosting the international and intra-trade of Islamic world countries.

This article concludes that export incentives and promotion are essential for Islamic world countries as they enhance economic prosperity and sustainable growth. It recommends that OIC Member Countries adopt export incentives and promotion strategies as they strengthen their export sectors, boost economic development, and achieve greater integration into the global economy. OIC Member Countries should benefit more from the ICIEC's export and credit services since it provides valuable services to improve their international trade.

Furthermore, the article recommends that the Islamic Development Bank, in cooperation with Türkiye, Saudi Arabia, and Malaysia, help other Islamic countries in need by adopting these export incentives and promotion through its reverse linkages program. Islamic Development Bank Group, relevant think tanks and research centres, universities, and players in the field of international trade should collectively work on the importance of export incentives and promotion in boosting global business, hence induce economic growth, and help in achieving their people's prosperity.

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## Unlocking the Potential of Halal Standardization, Conformity Assessment and Accreditation for the OIC Region: Potential Cooperation and Opportunities for Future

*Ihsan ÖVÜT<sup>1</sup>*

### 1. Introduction

The growth of the halal lifestyle on a global scale is not only driven by religious motives but also by its alignment with modern ethical and environmental concerns. This expansion encompasses various sectors beyond food, including cosmetics, tourism, finance, pharmaceuticals, and so on. Hence, the importance of the halal industry is universally recognized. With a global Muslim population exceeding 1.8 billion, encompassing a wide range of cultures, traditions, and preferences (Pew Research Center, 2017), the demand for halal-certified products and services is rapidly increasing which presents extensive opportunities for growth, innovation, and socio-economic development.

In an era characterized by rapid technological advancements and unprecedented global interconnectedness through enhanced transport and communication facilities, the halal concepts must inevitably evolve. The halal concept emerged primarily in response to substantial demand in countries with Muslim minorities, leading to the implementation of halal standards in production and the issuance of halal certificates to ensure producer compliance, thereby necessitating accreditation to guarantee the reliability of these certificates. The quality infrastructure—encompassing metrology, standardization, accreditation, and conformity assessment—is essential for enhancing industrial development, trade competitiveness, efficient resource use, food safety, and environmental protection, making it imperative to adhere to and establish the mechanisms integral to this system when addressing the Halal concept.

As global standards govern the production of goods in various sectors, including the halal industry, there was a pressing need for a unified and professional platform to regulate and standardize halal lifestyles, ensuring consistency and widespread recognition. Within the Organization of Islamic Cooperation (OIC) region, the standardization, conformity assessment, and accreditation of halal products and services have been given utmost importance for maintaining compliance with Islamic principles, ensuring consumer trust, and enhancing trade both within the region and internationally.

The journey towards establishing a unified mechanism for the harmonization of standards among Islamic states began with the 1st Meeting of the Economic and Commercial Cooperation Standing Committee (COMCEC) of the Organization of Islamic Cooperation (OIC) in 1984. Recognizing the need for a collaborative approach to standardization, COMCEC played a pivotal role in the formation of the Standardization Experts Group for Islamic States (SEG) in 1985.

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<sup>1</sup> Ihsan ÖVÜT, Secretary General of The Standards and Metrology Institute for the Islamic Countries (SMIIC)

The SEG's efforts culminated in the approval of the Statute of the Standards and Metrology Institute for Islamic Countries (SMIIC) at the 14<sup>th</sup> COMCEC Meeting in 1998. This milestone marked the beginning of a coordinated effort to develop and implement halal standards across OIC Member Countries. COMCEC's unwavering support has been instrumental in SMIIC's mission to harmonize standards, thereby facilitating trade, ensuring product safety, and enhancing the economic integration of the Islamic world.

The Standards and Metrology Institute for Islamic Countries (SMIIC) plays a pivotal role in this regard. Established in 2011 to promote harmonization in the fields of standardization, metrology, and accreditation among OIC Member Countries (SMIIC, 2019), the SMIIC aims to facilitate trade, enhance the quality and safety of products and services, and promote scientific and technological cooperation. By providing a unified framework for halal standards, the SMIIC seeks to address the challenges posed by varying interpretations of what constitutes halal, lack of coordination, and differing levels of technical infrastructure and expertise among the Member Countries.

In this context, this article focuses on exploring the potential for cooperation among OIC Member Countries to overcome the challenges and fully realize the benefits of halal standardization, conformity assessment, and accreditation. By examining the current practices and roles of SMIIC, identifying existing gaps, and proposing collaborative strategies, it is aimed to outline a path forward for the OIC region.

## 2. The Role of SMIIC in Halal Standardization

### 2.1 Standardization in General

Standards and standardization are often misunderstood in the halal industry; hence it is important to explain their function before stating the role of the SMIIC. A standard is an essential document designed for common and repeated use, offering guidelines or characteristics for activities or their results. Several key aspects define what makes a document a standard:

- **Voluntary Use:** Standards are voluntary by nature. While they are widely adopted, their use is not mandatory unless referenced by regulatory bodies. This voluntary nature encourages innovation and improvement without stifling creativity.
- **Consensus-Based:** The development of a standard must involve consensus among all relevant stakeholders. This includes industry experts, regulatory bodies, consumers, and other interested parties. Consensus ensures that the standard is balanced, addressing the needs and concerns of all involved.
- **Contributions from Stakeholders:** Stakeholder involvement is critical in the standardization process. Each participant brings valuable expertise and perspective to the table, contributing to the standard's technical accuracy and applicability.
- **Approved by a Recognized Body:** For a document to be considered a standard, it must be approved by a recognized standardization body. These bodies ensure that the standard meets all necessary criteria and is suitable for widespread use.
- **Designed for Common and Repeated Use:** Standards are intended for widespread use across various sectors and applications. They provide consistent criteria that can be repeatedly applied to ensure quality and reliability.



The consensus among stakeholders is crucial in ensuring high-quality standards that meet the demands of various industries. This approach is the foundation of the SMIIC's standardization process.

## 2.2 Standardization Process of SMIIC:

The SMIIC plays a vital role in developing standards that meet the needs of its Member Countries and its standardization process is a comprehensive and systematic approach involving several key components and stages. The Standardization Management Council (SMC) is one of the central bodies within the SMIIC, responsible for overseeing the development and implementation of standards. The SMC coordinates and monitors the performance of the technical committees, ensuring that they operate efficiently and effectively. The Council evaluates the performance of each technical committee, assigns chairs, and allocates secretariats. This oversight ensures that the committees are aligned with SMIIC's objectives and are working towards producing high-quality standards.

Technical committees (TCs) are the primary bodies driving standardization activities within SMIIC. Each technical committee focuses on a specific area of expertise, such as halal food, cosmetics, pharmaceuticals, tourism, or petroleum. These committees are responsible for developing standards relevant to their specific field, ensuring that the standards are technically sound and meet industry needs.

Each technical committee has a precise title, scope, and work program, operating according to an agreed business plan. Member Countries of SMIIC can choose to be participating or observer members, allowing them to engage with the standardization process at a level that suits their needs and interests. Participating members have the right to vote on standards projects, while observer members can follow committee activities and provide feedback where relevant.

The management of the technical committees is handled by a secretary assigned by the member country that holds the secretariat. Additionally, a chairperson leads the committee meetings, facilitating discussions and decision-making processes. Technical committees function like international organizations, issuing standards within their scope and ensuring that these standards are applicable and beneficial to the Member Countries and the broader international community.

SMIIC has established a comprehensive set of directives and guiding documents to ensure that the standardization process is transparent, efficient, and consistent. These documents provide the framework and guidelines for the development and maintenance of OIC/SMIIC standards.

SMIIC currently has several technical committees, each focusing on specific areas of interest and expertise. The committees including the Committee for Conformity Assessment (SMIIC/CCA) have published 57 standards in total and 20 of them are on halal issues.



SMIIC/CCA prepares OIC/SMIIC standards for conformity assessment. These standards provide guidelines for evaluating and verifying the compliance of products, services, and systems with specific requirements. SMIIC/CCA published standards such as halal certification, accreditation, inspection, laboratories performing Halal testing etc. For example, **“OIC/SMIIC 2:2019 Conformity Assessment – Requirements for Bodies Providing Halal Certification”** covers general requirements for Halal certification bodies, outlining the criteria and procedures for certifying Halal products and services. **“OIC/SMIIC 3:2019 Conformity Assessment - Requirements for Halal Accreditation Bodies Accrediting Halal Conformity Assessment Bodies”** addresses the general requirements for accreditation bodies accrediting Halal certification bodies, ensuring the integrity and reliability of the Halal certification process.

On the other hand, **TC1: Halal Food Issues** focuses on developing standards related to halal food production, processing, and distribution, ensuring that these standards meet the highest quality and safety criteria. **“OIC/SMIIC 1:2019 General Requirements for Halal Food”** is one of the core standards first published by the SMIIC together with **OIC/SMIIC 2:2019** and **OIC/SMIIC 3:2019**. Additionally, there are other standards issued by this committee on feed for halal animals, halal edible gelatin, food additives, etc. The committee is also currently working on the development of new standards on topics such as the development of test methods for porcine detection in food, Maximum Limit for Residues of Ethyl Alcohol (Ethanol) in Food etc.

In addition to these two committees, certain technical committees on Halal issues such as **TC2: Halal Cosmetic Issues**, **TC5: Tourism and Related Services**, **TC8: Leather and Tanning Material**, **TC9: Textiles and Related Products**, **TC10: Halal Supply Chain**, **TC11: Halal Management Systems**, **TC15: Terminology Committee**, **TC16: Halal Pharmaceuticals Issues** etc. have also published Halal standards such as:

OIC/SMIIC 4:2018 Halal Cosmetics – General Requirements

OIC/SMIIC 9:2019 Halal Tourism Services – General Requirements

OIC/SMIIC 37:2022 Halal Products- Usage of Animal Bone, Skin and Hair- General Guidelines

OIC/SMIIC 17-1:2020 Halal Supply Chain Management System General Requirements

OIC/SMIIC 18:2021 Halal Quality Management System – Requirements

OIC/SMIIC 50-1: 2022 Halal Pharmaceuticals - Part 1 - General Requirements

While halal is a particular special focus within SMIIC due to its importance to Member Countries, the organization encompasses a broad spectrum of technical activities, addressing the diverse interests and needs of its members.

## 2.3 Role of the SMIIC in Standardization, Metrology and Quality Infrastructure

Efforts to develop unified halal standards were already underway prior to the establishment of SMIIC, led by the Standardization Expert Group (SEG-mandated by COMCEC). Following the delegation of authority to the SMIIC for the development of halal standards, a Technical Committee Meeting was held in Yaoundé, Republic of Cameroon, on May 16-17, 2011. This meeting saw the participation of 33 representatives from various OIC Member Countries where three documents were deliberated upon and subsequently adopted as OIC/SMIIC Standards, with contributions from 39 OIC-SEG Member Countries and the International Islamic Fiqh Academy (IIFA). After its establishment, the SMIIC has been the only official platform of the OIC to develop halal standards as per the needs of the members and the industry.

**Quality infrastructure** is a foundational element in the modern global economy, playing a pivotal role in facilitating international trade, ensuring safety, and promoting innovation. At its core, standardization provides a set of consensus-based criteria for all the pillars of quality infrastructure, ensuring that products and services meet specific requirements.

On the other hand, halal standardization is a specialized area that focuses on ensuring that products and services comply with technical requirements and Islamic law. As the demand for halal products grows globally, it becomes increasingly important to align halal standards with the broader quality infrastructure to ensure their credibility, reliability, and acceptance. In this context, it is of utmost importance to embrace international practices in the halal industry and benefit from all the elements of international quality infrastructure, particularly standardization, metrology, and accreditation.

The significance of a cohesive halal standardization and accreditation system is profound. A harmonized framework can simplify trade processes, build consumer confidence, and ensure that halal products adhere to consistent quality and safety standards. However, the OIC region faces multiple challenges in achieving such cohesion, including diverse interpretations of halal standards, insufficient collaboration among the Member Countries, and variations in technical capabilities. All these challenges will be addressed through the implementation of the **OIC Global Halal Quality Infrastructure (OHAQ)**, which includes designated bodies for each element of conformity assessment.

**Metrology** is one of the key parts of the OHAQ that supports the global trade of halal products and services. Metrology infrastructure, harmonization, and implementation of measurement standards among the OIC Member Countries play critical roles in improving halal product quality and reliability and eliminating technical trade barriers thus developing trade among themselves and other countries. SMIIC is responsible for defining the metrology policies and strategies within the OIC. The SMIIC Metrology Council (MC) serves as the operational body of SMIIC, facilitating cooperation among national metrology authorities from Islamic countries. The SMIIC MC Working Plan focuses on various training and capacity-building activities. These include scientific, legal, and industrial metrology, trainings related to halal activities and calibration, proficiency testing as well as joint work, consultancy, research and development workshops. These training programs and collaborative activities are designed to enhance expertise and promote best practices within the OIC region in the specific field of metrology. As an example; the SMIIC MC Inter laboratory Comparisons (ILCs) which aim to foster and enhance measurement accuracy across participating laboratories have been commenced in November 2023 for mass, temperature, and pressure with the National Metrology Institutes (NMI) of Azerbaijan, Burkina Faso, Jordan, Malaysia, Qatar, Uganda, and Uzbekistan. Similarly, the SMIIC MC conducts Research and Development (R&D) projects aimed at capacity building, which are essential for advancing metrology

practices and promoting innovation. Through these R&Ds, the SMIIC MC, in collaboration with the SMIIC General Secretariat, intends to provide annual support for specific projects in the Member Countries that will contribute directly to the development of OHAQ. SMIIC MC also supports the development of OIC/SMIIC standards and guidelines specifying certain materials or ingredients to be produced as Reference Materials (RMs) and Certified Reference Materials (CRMs) to ensure the metrological traceability and accuracy of the testing results in halal industry for both OIC and non-OIC countries. In this regard, the SMIIC MC is already working on a Medical Metrology Standard/Guide for Legal Metrology Purposes draft to be used by the OIC Member Countries. Metrology activities in OIC Global Halal Quality Infrastructure will provide the technical basis for the halal certification programs throughout the OIC Member Countries that aim at qualifying the halal products of OIC Member Countries within and for access to new markets.

SMIIC plays a critical role as an organ of the Organization of Islamic Cooperation (OIC) in promoting and developing halal standardization among Member Countries and serves as a crucial part of OHAQ. Its mission is to enhance trade and economic integration of OIC Member Countries through the development of uniform standards and quality infrastructure. With its 17 Technical Committees, OIC/SMIIC standards are meticulously crafted, adhering to the highest professional and best practice guidelines. The collective action of 350-400 experts within these technical committees is instrumental in fortifying the quality infrastructure of SMIIC Member Countries. Training and capacity-building programs organized by SMIIC for its members and stakeholders involved in the halal industry are essential to implementing halal standards effectively.

SMIIC engages in research and development activities to continuously improve halal standards and address emerging issues. This includes collaborating with academic institutions, industry stakeholders, and other standardization bodies to ensure that halal standards remain relevant and up-to-date. Aligning halal standards with the broader quality infrastructure ensures credibility, facilitates international trade, and promotes consumer trust. As an OIC organ, SMIIC plays a pivotal role in developing, harmonizing, and promoting halal standards, ultimately contributing to the economic integration and growth of OIC Member Countries.

### **3. Current State of Halal Conformity Assessment in the OIC Region**

The Organization of Islamic Cooperation (OIC) region, comprising 57 Member Countries, presents significant potential for developing a robust halal economy. However, the current state of halal conformity assessment activities as certification and accreditation across these countries varies widely due to differences in regulatory frameworks, institutional capacities, and technological advancements.

Halal certification practices currently implemented include certification only by national certification bodies, certification by both national and private certification bodies, and certification based on either OIC/SMIIC standards or national standards.

Some OIC Member Countries have established national bodies for halal certification as the only authorized bodies in the country, often underpinned by specific legislation. Malaysia's Department of Islamic Development (JAKIM) and Indonesia's Halal Product Assurance Organizing Agency (BPJPH) exemplify institutions that have set different conformity assessment procedures for their domestic practices based on their national standards. These countries leverage their institutional frameworks. Malaysia, in particular, has developed a comprehensive halal ecosystem through JAKIM's certification based on national halal standards developed by Department of Standards Malaysia (DSM). This framework supports various sectors, including food, cosmetics, pharmaceuticals, and logistics. In addition to domestic certification, for imported goods, instead of an accreditation activity, JAKIM operates a national recognition system to authorize other certification bodies to perform certification on its behalf. Hence, it is mostly beneficial for the country that sets the rules and does not bind official relationships or cooperation between countries.

On the other hand, in Indonesia, BPJPH oversees the certification process and ensures compliance with its halal system across various sectors. The BPJPH halal certification mandates that manufacturers adhere to halal certification standards for final products and integrate the Halal Assurance System into their production processes.

This situation, occurring in these two neighboring countries with similar halal certification structures, exemplifies a significant challenge to the further development of the halal industry. Both countries, despite having similar objectives in ensuring halal compliance, have established distinct national systems that reflect their unique legislative and regulatory environments. This divergence not only affects domestic compliance but also complicates international trade, as businesses seeking to operate in both markets must navigate these separate certification requirements. Two countries signed a Memorandum of Cooperation (MOC) with a view to mutually recognize the halal certificates which are issued by national organizations for domestic products. To address these challenges, there is a need for greater harmonization and mutual recognition between halal certification systems. Such alignment could be achieved through the accreditation system that naturally promotes the use of unified standards, which will foster smoother trade relations and support the broader growth of the halal industry.

**Accreditation** is a critical component of the quality infrastructure system, ensuring that certification bodies operate with the highest standards of integrity and competence. In the OIC region, the landscape of accreditation processes and practices is diverse, reflecting varying levels of economic development and institutional maturity among the Member Countries. OIC Member Countries such as Saudi Arabia, the UAE, Pakistan, and Türkiye allow halal certification of both private and national certification bodies by controlling the business through accreditation. In these environments, robust accreditation systems are often in place, typically modelled on international standards. The Ministry of Industry and Advanced Technology (MOIAT) in the UAE and the Halal Accreditation Agency (HAK) in Türkiye are primary examples of institutions that have established rigorous halal accreditation processes. These national bodies ensure that halal certification organizations operate in line with the regionally/internationally recognized standards, enhancing the global acceptance of their halal certificates. HAK conducts halal assessment activities according to the OIC/SMIIC standards, ensuring halal products to meet quality and safety criteria. Türkiye's approach to halal accreditation, supported by HAK's adherence to OIC/SMIIC standards, has bolstered the credibility and acceptance of its halal products in global markets (ISO, 2017).



Conversely, certain OIC Countries including Least Developed Countries (LDCs) are at the initial stage of establishing their conformity assessment system. In some cases, the halal certification is performed by private organizations or foundations without the control of any public authority. So, the gap between developed and less developed Member Countries in terms of halal infrastructure and expertise remains substantial. This gap in infrastructure limits their participation in the global halal market.

Although all these certification and accreditation practices may work for the national level market regulations, they create disparities in the mutual recognition and acceptance of halal certificates issued by different OIC Member Countries. This lack of uniformity leads to trade barriers and reduces consumer confidence in halal products. Thus, efforts by SMIIC to unify halal standards across the OIC region are crucial in addressing these disparities. By providing a unified framework, SMIIC helps facilitate mutual recognition of halal certificates, reducing barriers to trade and enhancing consumer confidence. The accreditation scheme based on OIC/SMIIC standards according to the OIC Global Halal Quality Infrastructure (OHAQ) promotes consistent and reliable certification processes across Member Countries, thereby fostering trust in halal products and services.

SMIIC plays a vital role in addressing these challenges by promoting the functioning of an accreditation mechanism as stipulated in the OIC/SMIIC standards. This mechanism supports Member Countries, particularly LDCs, in developing their accreditation capacities. Through training programs, technical assistance, and the development of any needed halal-related OIC/SMIIC standards, SMIIC promotes the enhancement of credibility and recognition of halal certification across the OIC region. Furthermore, the **Islamic Forum for Halal Accreditation Bodies (IFHAB)**, headquartered in Saudi Arabia, *the newly established OIC-affiliated body mandated to perform peer evaluation among the national accreditation bodies of OIC Member Countries according to the OIC/SMIIC standards*, is an initiative aimed at fostering cooperation among OIC Member Countries. IFHAB's goal is to develop and maintain a Multilateral Recognition Arrangement (MRA) to facilitate intra-OIC trade. The MRA ensures that products granted accredited halal certification according to OIC/SMIIC standards by any national halal accreditation bodies of OIC Member Countries signatory to the MRA will be subject to free movement of goods without any re-certification. This initiative is pivotal in reducing trade barriers and promoting a seamless halal market across the OIC region.

Besides, the importance of transitioning to OIC/SMIIC standards cannot be overstated. As the official standardization body of the OIC, SMIIC develops halal-related OIC/SMIIC standards intended for adoption by all OIC Member Countries. This unified approach is expected to replace local halal standards in favor of OIC/SMIIC standards, ensuring consistency and mutual recognition across Member Countries. The IFHAB, operating solely according to OIC/SMIIC standards, will play a critical role in this transition. For instance, if the HAK of Türkiye, as a signatory to the IFHAB MRA, accredits a certification body that certifies a product according to the OIC/SMIIC standard, that product can be exported to any other IFHAB signatory OIC Member Countries without the need for re-certification. This streamlines trade processes and enhances the credibility and acceptance of halal products within the OIC region.



## 4. Potential Cooperation among OIC Member Countries

Halal standards and accreditation are pivotal elements in the global trade system, particularly for the Organization of Islamic Cooperation (OIC) Member Countries. With the halal market expanding beyond food into pharmaceuticals, cosmetics, and services, the significance of unified halal standards has never been more understood. The potential for cooperation among OIC Member Countries in this field is immense, offering pathways to enhanced trade, consumer confidence, and economic growth. For OIC Member Countries, which collectively represent a substantial portion of the global Muslim population, the establishment and mutual recognition of halal standards are essential for facilitating intra-OIC trade and ensuring that products meet consistent, high-quality standards across borders.

One of the foremost reasons for cooperation is the streamlining of halal certification processes. Currently, as explained by some examples, different national standards and certification requirements can lead to trade barriers, increased costs, and confusion among consumers and businesses. By working together under SMIC to unify these standards and harmonize the efforts, OIC Member Countries can create a more efficient and coherent certification system. This would not only simplify market access for producers but also enhance the credibility and acceptance of halal-certified products globally.

Mutual recognition of accreditation is a critical component of this cooperative framework. Accreditation ensures that certification bodies operate with integrity, impartiality, and competence. When OIC Member Countries become members of the IFHAB and mutually recognize each other's accreditation systems, it will reduce redundancy and foster trust. Businesses can confidently trade, knowing that their products will be accepted across borders without the need for re-certification. This trust is crucial for the seamless movement of goods and services and for building consumer confidence.

The halal market is rapidly growing, with estimates suggesting it could be worth trillions of dollars in the coming years. By capitalizing on this growth through coordinated efforts in standardization and accreditation, OIC Member Countries can position themselves as leaders in the global halal industry. This can attract investment, drive innovation, and create jobs, contributing to the overall economic development of the region (Thomson Reuters, 2018).

## 5. Policy Recommendations

The standards with the most benefits for all relevant parties are best achieved by the contribution of all stakeholders. In the creation of halal standards, the contribution of both technical and religious stakeholders is important. Therefore, engagement of relevant stakeholders through the experts assigned by SMIIC Member Countries with convenient background and experience in the subjects related to Halal and the contribution of International Islamic Fiqh Academy (IIFA) in terms of fiqh issues to SMIIC Technical Committees work is the best practice to issue the OIC/SMIIC Halal Standards for global use.

Overcoming the challenges in developing OHAQ requires a concerted effort from all OIC Member Countries through providing utmost support to SMIIC which is the sole standardization body of the OIC. Enhanced cooperation amongst OIC Member Countries, increased investment in capacity-building, and a commitment to the development and implementation of OIC/SMIIC standards by relevant parties are key aspects of success.

The development and implementation of effective accreditation processes and practices based on OIC/SMIIC Standards are essential for ensuring the integrity and reliability of halal certification. By building strong accreditation infrastructures, OIC Member Countries can enhance their participation in the global halal economy and ensure the highest standards of halal compliance. Collaborative efforts, supported by the SMIIC and the IFHAB, will be crucial in achieving these goals and unlocking the full potential of the halal market within the OIC region.

Metrology, the science of measurement, is a foundational pillar of a country's quality infrastructure, playing a critical role in ensuring the accuracy, reliability, and consistency of measurements across all sectors. Accurate measurements are essential for the development and implementation of standards, as they provide the necessary data to verify compliance with technical regulations, including those related to safety, health, and the environment. In the context of the OIC/SMIIC standards, metrology underpins the credibility of halal certification processes by ensuring that all measurements related to product quality, safety, and conformity are precise and traceable. This not only strengthens the trust in halal products but also facilitates trade among OIC Member Countries by harmonizing measurement practices and eliminating technical barriers. As OIC/SMIIC standards continue to evolve, the role of metrology will remain crucial in driving innovation, ensuring compliance, and fostering international recognition of halal products, ultimately contributing to the economic development and global competitiveness of OIC Member Countries.

## 6. Conclusion

The global proliferation of the halal lifestyle extends far beyond religious motivations, reflecting its alignment with contemporary ethical and environmental concerns. The universal recognition of the halal industry is indicative of its growing significance in today's interconnected world. In this context, SMIIC's role in halal standardization is particularly significant as it involves meticulously developing OIC/SMIIC standards while adhering to the highest professional and best practice guidelines. Since its establishment, SMIIC has become widely recognized, and its standards are now adopted and implemented globally.

Despite these advancements, the current state of halal conformity assessment within the OIC region reveals significant disparities. This fragmentation underscores the necessity for greater harmonization and mutual recognition of halal certification systems to reduce operational costs, enhance trade efficiency, and foster smoother market interactions. Accreditation, through its MRA instrument, is crucial to have a unified system that ensures that certification bodies operate with integrity and competence.

In this context, the SMIIC's role as the official standardization body of the OIC is pivotal in developing unified standards and the IFHAB's adherence to OIC/SMIIC standards will play a critical role in enabling products certified under OIC/SMIIC standards to be accepted across Member Countries without re-certification.

By collaborating under SMIIC's framework, OIC Member Countries can streamline certification processes, reduce trade barriers, and foster a more cohesive halal market. Such cooperation will enhance trade, bolster consumer trust, and drive economic growth across the region. The OIC Member Countries, encompassing a substantial segment of the global Muslim population, have the potential to gain significantly from a unified strategy in halal standardization and accreditation.

By adopting a coordinated approach, these nations can establish themselves as frontrunners in the global halal industry, thereby leveraging the expanding market opportunities to their advantage (World Halal Forum, 2016).

Improving cooperation among OIC Member Countries in metrology activities is crucial for maintaining a high level of competence and achieving global competitiveness. By fostering collaborative efforts, OIC Member Countries can pool resources, share expertise, and standardize measurement practices. This collective approach not only ensures consistency and reliability across Member Countries but also positions the OIC region as a formidable player in the global arena. Enhanced cooperation in metrology will drive innovation, support the development of OIC/SMIIC standards, and ultimately contribute to the economic growth and technological advancement of the entire region.

As SMIIC continues to lead the way in developing OIC/SMIIC standards, the ongoing support from COMCEC remains a cornerstone of its success. COMCEC's vision and commitment to fostering economic cooperation among OIC Member Countries have been vital in enabling SMIIC to achieve its objectives. The establishment of a unified standardization framework under the OIC/SMIIC banner not only strengthens the halal industry but also promotes the economic growth and development of OIC Member Countries. By maintaining this strong partnership, SMIIC and COMCEC can continue to drive innovation, enhance trade relations, and solidify the OIC region's position in the global marketplace, ultimately benefiting the entire Islamic community.

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# The Settlement of International Trade and Investment Disputes: Global Trends and Challenges

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## 1. Introduction

According to the latest projections from the Organisation for Economic Co-operation and Development (OECD), global trade in goods and services is expected to grow by 2.3% in 2024, which may reach 3.3% in 2025 (Willige, 2024). Despite the growth projections, there are risks inherent in international trade. Each of the risks in international trade has the potential of undermining the growth projection and could potentially snowball into a dispute. Despite the potential inevitability of disputes, the modern global economy has expanded to encompass a wide range of issues, including digitalisation, environmental law, human rights, politics and data protection, among others. To illustrate the situation with the current global trade data, there is an increase in demand for green energy products and computers related to artificial intelligence. Current trends demonstrate that there is a developing relationship between investments and human rights. (Krajewski, 2018, p. 3). For instance, in light of climate change and the obligations of states with respect to the environment as set forth in international agreements, the utilisation of trade restrictive measures is anticipated to increase (United Nation Trade and Development (UNCTAD), 2024, p. 3). In parallel with developments in international trade, international investment law has also undergone significant changes. In contrast with commercial law, an investment establishes a long-term relationship between the foreign investor and the host country. In this regard, although international investors bear associated commercial risks, which are inherent to the nature of the business, such as price fluctuation and foreign exchange risk, geopolitical and technological developments have now emerged as a considerable challenge for them. These challenges are particularly evident when one considers the fact that investment is predominantly directed towards developing countries, which are perceived as offering a favourable investment environment due to the abundance of resources coupled with a lack of expertise in their productive and efficient utilisation. The potential for political risks, conflicts of interest among actors ranging from public authorities, private companies to civil society organisations, and other related issues remain intensely debated topics, especially in developing countries.

The Organisation of Islamic Cooperation (OIC) Member Countries is comprised of developing countries that occupy a pivotal position on the global trade map. In accordance with the World Trade Organization (WTO) statistics, the Middle East achieved the highest growth in world merchandise trade in 2022.

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The OIC Member Countries are represented across a range of sectors, from agricultural to fuels and mining products (World Trade Organization, pp. 60,71-80,83-89,99). In 2023, crude oil exports were primarily concentrated in the Middle East, where many of the OIC Member Countries are located, representing 41% of the total exports (Energy Institute, 2024, pp. 21,22,34). Consequently, the OIC Member Countries are confronted with the need to address the risks that pertain to world trade, and are thus obliged to be adequately prepared. The result effect of all the risks associated with international trade is the occurrence of a dispute; and how such international trade disputes are resolved remains a key challenge.

The OIC Member Countries are, to a considerable extent, inevitably involved in a number of international disputes, whether in the capacity of an investor, host state or commercial actor. According to the 2023 International Chamber of Commerce (ICC) statistics, 14 OIC Member Countries were identified as leading countries in international commercial arbitration. (International Chamber of Commerce (ICC), 2024, pp. 15,16) This raises a number of crucial questions that must be addressed. Firstly, what is the significance of the involvement of OIC Member Countries in numerous commercial and investment disputes at the ICC Court of Arbitration and International Centre for Dispute Settlement of Investment Disputes (ICSID)? To what extent is alternative dispute resolution (ADR) a common practice within the Member Countries? Is there an alternative forum for amicable resolution of disputes for the OIC Member Countries?

The objective of this study is twofold: first, it seeks to respond to the aforementioned questions within the context of international trade and investment dispute settlement; second, it presents practical recommendations to OIC Member Countries, taking into account the current developments and challenges within international commercial and investment law. Accordingly, the study is divided into five sections. After the Introduction, Section 2 provides global trends and the main functions of arbitration centres in the settlement of international trade and investment disputes. This is followed by Section 3, which examines dispute settlement within the OIC Member Countries considering the expectations and challenges. Section 4 focuses on efforts of the OIC Member Countries in terms of glocalization and regionalization and establishes a framework for the tasks ahead of the stakeholders within the Member Countries. The final section examines the strategies and policy recommendations for addressing the current issues and maintaining the Member Countries' competitiveness in the context of evolving international trade and investment trends.

## **2. Global Trends and Main Functions of Arbitration Centres in International Trade and Investment Disputes**

The resolution of international trade and investment disputes is evolving rapidly in response to a number of factors, including globalisation, criticism of the efficacy of traditional methods, demands for greater transparency, technological advancements, and a shift in priorities towards human rights and a sustainable world. These developments have given rise to the emergence of more effective and adaptable dispute resolution mechanisms that are more responsive to the needs of a changing global landscape. This shift is driven by factors such as the increase in cross-border transactions and the growing complexity of international agreements, which require more flexible and innovative approaches to dispute resolution. As global trade expands, there is a greater need for mechanisms that can deal efficiently with diverse and multifaceted disputes.

## 2.1 Current Trends in International Trade and Investment Dispute Resolution

In an ever-changing world that has internalised risk taking, foreign investors and businesspeople demand alternative mechanisms that provide a reliable basis for protecting their rights and capital. They are seeking a structured and predictable system designed to oversee potential conflicts and mitigate risks or resolve disputes in a manner that does not result in any damage to their investments. Furthermore, they are looking for solutions that are both expeditious and efficient, provided by experts in the field (Nobles, 2012, p. 7). On the other side of the coin, states seek economic progress through the implementation of business-friendly economic and investment policies, while simultaneously ensuring the protection of public policy. In this regard, policy makers are seeking to establish a protected environment for foreign investors, while ensuring the existence of a fully accountable state in an international manner with an internal competitive environment, effective public order and so forth.

Furthermore, the two actors in question – foreign investors and state parties – prioritise different values and principles in their activities. The exchange of confidential information, including business strategies, trade secrets and financial data, is an inherent aspect of international commercial relationships. Such information has the potential to impact a company's market position, reputation and credibility, specifically in light of the risks posed by technological advancement. Therefore, it is of utmost importance for businesspeople to ensure the protection of privacy and to conduct their affairs in a commercially sensible manner (Born, 2014). Nevertheless, as previously stated, in the context of investment disputes, the presence of public policy elements gives rise to a notable increase in the demand for transparency in investment relationships, rather than confidentiality (Smeureanu I. M., 2011, p. 94). To this end, a number of scholars have argued for greater transparency in investment law (Smeureanu I. M., 2011, pp. 93-95). In addition, the implications of the transparency debate in investment law remain a topic of considerable discussion (Teitelbaum, 2010, p. 55).

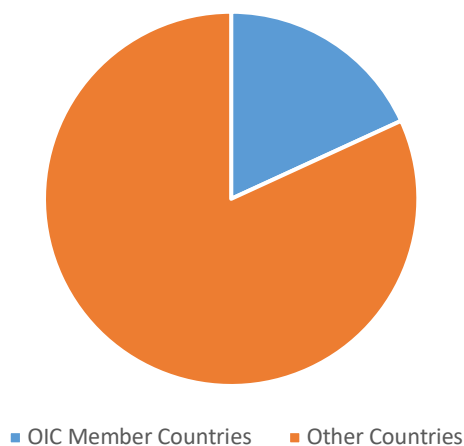
In order to meet the numerous expectations inherent to the diverse scope of international transactions, the utilisation of ADR methods has become a standard practice and a global trend. These methods provide a forum for both states and individuals to pursue justice on a common platform. In this regard, arbitration is one of the most frequently utilised ADR methods, due to its finality, binding nature, efficiency and enforcement options, which ensure a neutral and predictable process. For the commercial actors, disputes represent a significant loss of time and financial resources, and it is widely acknowledged that the majority of international investors lack confidence in the court systems of host states, particularly given the susceptibility of such disputes to politicisation due to their public interest elements. Furthermore, the majority of international disputes necessitate a certain degree of technical expertise, which is often constrained by the lack of experts in some local courts.

Arbitration represents an ADR method that allows the parties involved to select arbitrators who possess not only technical knowledge but also the capacity to manage such complex disputes and comprehend expert opinions. Neutrality and effectiveness are the primary motivations for practitioners to choose arbitration, as evidenced by surveys conducted on some challenging dispute types (Queen Mary University of London, 2022, pp. 30-32). Furthermore, in contrast to litigation, particularly in the context of long-term contracts such as those pertaining to energy disputes, arbitration provides the potential for the project to be continued, rather than termination.

Without such an ADR process that will ensure continuity in the investment opportunity in a country, there could be serious loss of investments, which will not only affect the huge investments deployed by the foreign investor but could potentially lead to loss of foreign investments for the host state.

Institutional arbitration is one of the most common types of international arbitration. Arbitration centres serve as the primary forum for the determination and protection of fundamental values through the implementation of well-structured rules and systems. It ensures a neutral, efficient and predictable process, facilitating the resolution of disputes in a manner appropriate to the needs of the parties involved. The 2023 ICC statistics indicate a significant increase in the number of newly registered arbitration cases, with a rise of over 25% compared to the previous year (International Chamber of Commerce (ICC), 2024, p. 4). Furthermore, the ICSID statistics indicate that arbitration remains the predominant method for resolving investment disputes (ICSID, 2023, p. 24). As illustrated in Figure 1, ICSID reported that 51 of the 281 pending cases involved an OIC member country as a party, which represents approximately 19% of the total cases (International Centre for Dispute Settlement of Investment Disputes (ICSID)).

**Figure 1: ICSID Pending Cases Statistics**



**Source:** (International Centre for Dispute Settlement of Investment Disputes (ICSID))

Given the increasing number of pending cases involving an OIC Member Country at ICSID, one would wonder if there were concerted efforts to for the OIC, being the largest inter-governmental organisation in the world after the United Nations, to establish or upgrade its own unique international arbitration centre for resolving international trade and investment disputes. However, before addressing such issues, it is important to discuss the main functions of arbitration centres in international trade and investment disputes to provide some context to the analysis.

## 2.2 Main Functions of Arbitration Centres in International Trade and Investment Disputes

Although numerous international, regional and national arbitration centres across the world are involved in resolving international trade and investment disputes, the main global platforms for such disputes with huge caseload remain the ICC International Court of Arbitration and ICSID for international commercial disputes and international investment-related disputes respectively. In addition, the Permanent Court of Arbitration (PCA), being a body established by the Convention for the Pacific Settlement of International Disputes which was concluded at The Hague in 1899. The other founding convention is the 1907 Convention for the Pacific Settlement of International Disputes. With 123 contracting parties, the PCA has been very active in resolving financial, commercial, investment, energy, and treaty disputes. These disputes include contract-based, interstate, investor-state and other forms of international disputes.

The primary function of an arbitration centre is the administration of arbitral proceedings. Arbitration centres provide a regulatory framework, a structured process, and a range of actors who facilitate the proceedings, from the secretariat to arbitrators (Draetta, 2018, p. 357). It is important to note, however, that the role of international arbitration institutions extends beyond the resolution of disputes. They also serve as regulators and rule makers. They contribute to the development of international arbitration law and its practice through the identification of potential risks and future conflicts and the provision of standards and guidelines based on precedent cases, which mitigate the risks. Furthermore, they foster international understanding of the rule of law and enhance the national public policy of the country concerned.

It is evident that the incorporation of ADR clauses in contracts serves as a valuable tool for the effective management and mitigation of potential risks. In line with the technological developments that have occurred in recent times, it is also necessary to state that international dispute resolution has been digitalised through the use of virtual hearings, e-arbitration agreements and artificial intelligence arbitrators. These developments offer time and cost effective solutions while simultaneously leading to the emergence of new challenges regarding data protection and cyber security. Many international arbitration centres have adopted new rules and regulations with the aim of upholding party autonomy and securing confidentiality in the arbitral proceeding, while simultaneously enhancing efficiency (Łagiewska, 2024, p. 857).

## 3. Dispute Settlement in the OIC Member Countries

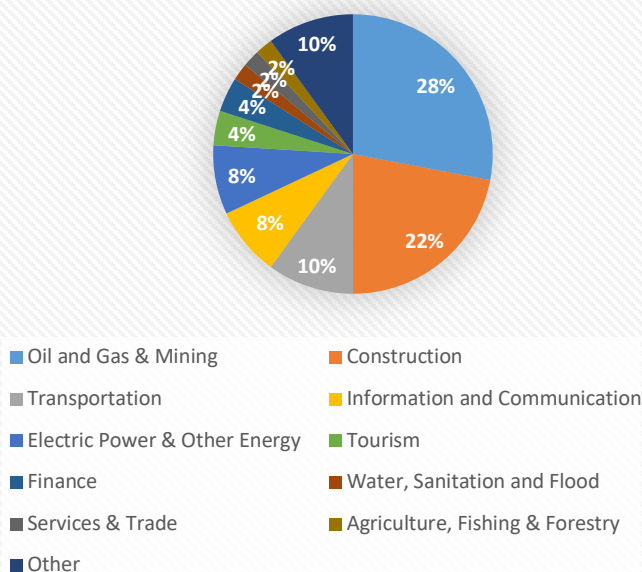
With regard to the OIC Member Countries, it can be stated that Member Countries are now more likely to engage with arbitration, as evidenced by the growing number of disputes filed with ICC, the London Court of International Arbitration (LCIA) and ICSID. According to ICC data, countries with the highest representation in the African region are Morocco, Egypt, Nigeria, and Algeria. In the Asia and Pacific region, countries with the highest representation are the United Arab Emirates (UAE), Saudi Arabia, Qatar, Oman, and Lebanon. According to the statistics, 84 parties originate from the UAE, which is one of the countries with the highest numbers globally. In Central Asia, there are 15 parties comprising Afghanistan, Azerbaijan, Georgia, Kazakhstan, and Uzbekistan (International Chamber of Commerce (ICC), 2024, pp. 5,6).



Similarly, the LCIA Annual Casework Report for the year 2021 indicates that, after the UK, the UAE is the nation with the highest representation, at 5.2%. Pakistan also features prominently, with a considerable percentage of cases involving Pakistani nationals, at 2.8% (London Court of International Arbitration, 2024, p. 7). Similarly, a close examination of the prevailing trends in international investment law indicates that, of the 281 pending cases in ICSID, 51 involve a nation that is a member of the OIC. As demonstrated in Figure 1 above, this figure represents nearly one-fifth of the overall caseload, underscoring the significant involvement of OIC member countries in global investment disputes.

The majority of cases have arisen in the sector of oil, gas and mining, which is the most prevalent type of dispute. As demonstrated in Figure 2, from this total, 11 cases pertain to construction, 5 to transportation, and 4 to electricity and other energy sector disputes.

Figure 2: Types of ICSID Pending Cases



**Source:** (International Centre for Dispute Settlement of Investment Disputes (ICSID))

The OIC Member Countries has faced significant geo-political challenges, which may lead to political risks caused by conflicts of interest among various parties, including public agencies, private enterprises, and civil society organisations.



According to the initial analysis of the top 50 merchandise export and import countries, there has been an increase in the proportion of OIC Member Countries globally. Türkiye, the UAE, Saudi Arabia, Malaysia, Indonesia, Iraq, Qatar, Kuwait, Kazakhstan, and Iran have been identified as leading export countries, whereas Türkiye, Malaysia, Indonesia, Saudi Arabia, Bangladesh, Egypt, and Iraq represent the leading import countries within the OIC (World Trade Organization, pp. 60,71-79,80-89,99).

Middle East region where most of the developing countries are located, possesses 65.7% of oil reserves (Erkan, 2010, p. 29). The addition of further OIC Member Countries, including Algeria, Azerbaijan, Libya, Nigeria, Sudan, Tunisia, Indonesia, Malaysia, Turkmenistan and Uzbekistan, to the aforementioned list illustrates that a significant proportion of the global total is accounted for by Member Countries of the OIC (Energy Institute, 2024).

## 4. Efforts within the Member Countries: Globalisation or Regionalisation?

In line with the global trends and challenges previously outlined, there is a growing prevalence of arbitration and arbitration centres in the OIC Member Countries. As illustrated in the Table 1, most of the countries within the OIC Member Countries have an arbitration centre, the majority of which provide international arbitration services. Considering the data provided by UNCITRAL, 20 out of the OIC Member Countries have adopted the UNCITRAL Model Law on International Commercial Arbitration, which is one of the most effective legislative models for commercial arbitration in the world. Moreover, it must be stated that only a few arbitration centres located in industrialised nations released reports regarding the activities. Consequently, with regard to the arbitration process, efforts within the region can only be examined through the most developed arbitration centres.

**Table 1: A Non-Exhaustive List of Major Arbitration Centres in the OIC Member Countries**

| COUNTRY           | ARBITRATION CENTRES                                                                                        |
|-------------------|------------------------------------------------------------------------------------------------------------|
| ALGERIA           | Centre for Conciliation, Mediation and Arbitration of the Algerian Chamber of Commerce and Industry (CACI) |
|                   | Annaba Mediation & Arbitration Centre, Annaba                                                              |
| AZERBAIJAN        | Azerbaijan Arbitration Association                                                                         |
|                   | Azerbaijan Arbitration and Mediation Centre                                                                |
| BAHRAIN           | The Bahrain Chamber for Dispute Resolution (BCDR)                                                          |
| BANGLADESH        | Bangladesh International Arbitration Centre (BIAC)                                                         |
| BENIN             | Conciliation and Arbitration Chamber of the Cotton Inter-professional Association of Cotonou               |
|                   | Arbitration, Mediation and Conciliation Centre of the Chamber of Commerce & Industry of Benin              |
| BRUNEI DARUSSALAM | Brunei Darussalam Arbitration Center                                                                       |
| BURKINA FASO      | Centre d'Arbitrage de Mediation et de Conciliation de Ouagadougou                                          |
| CAMEROON          | Centre de Médiation et d'Arbitrage du Gicam                                                                |
|                   | Centre d'arbitrage du CPAM, Yaounde                                                                        |
| CHAD              | Centre de Mediation et d'arbitrage, Ndjamena                                                               |
| COTE D'IVOIRE     | Arbitration Centre Chambre d'Arbitrage de Cote d'Ivoire                                                    |
|                   | Common Court of Justice & Arbitration of OHADA                                                             |
| DJIBOUTI          | Intergovernmental Authority on Development Business Arbitration Centre                                     |
| EGYPT             | Cairo Regional Centre for ICA (CRCICA)                                                                     |
|                   | Sharm El Sheikh International Arbitration Centre                                                           |
| GABON             | Centre d'Arbitrage, de Mediation et de Conciliation (CAMC-GA)                                              |
| GUINEA            | Arbitration Centre Chambre d'Arbitrage de la Guinee, Conakry                                               |
| INDONESIA         | Indonesia International Arbitration Center (INIAC)                                                         |
|                   | Badan Arbitrase Nasional Indonesia (BANI Arbitration Center)                                               |
|                   | The National Sharia Arbitration Board                                                                      |
|                   | Indonesian Capital Market Arbitration Board                                                                |
|                   | Indonesia Dispute Board                                                                                    |
| IRAQ              | The Iraqi Center for International Arbitration                                                             |
| IRAN              | Tehran Regional Arbitration Center (TRAC)                                                                  |
| JORDAN            | Jordan International Arbitration Centre (JIAC)                                                             |
| KAZAKHSTAN        | International Arbitration Court (IAC)                                                                      |
|                   | The Arbitration Center of the National Chamber of Entrepreneurs                                            |

| COUNTRY      | ARBITRATION CENTRES                                                           |
|--------------|-------------------------------------------------------------------------------|
| KYRGYZSTAN   | The Central Asian Court of International Arbitration (CACIA)                  |
| KUWAIT       | Kuwait Commercial Arbitration Centre (KCAC)                                   |
| LEBANON      | Lebanese Arbitration and Mediation Center (LAMC)                              |
| LIBYA        | Libyan Centre for Mediation & Arbitration                                     |
|              | The Libyan International Arbitration Commercial Centre                        |
| MALAYSIA     | The Asian International Arbitration Centre (AIAC)                             |
|              | Borneo International Centre for Arbitration and Mediation                     |
| MALDIVES     | Maldives International Arbitration Centre                                     |
| MALI         | Centre de Conciliation et Arbitrage du Mali (CECAM)                           |
| MOROCCO      | Euro-Mediterranean Center for Mediation & Arbitration, Casablanca             |
|              | International Court of Mediation and Arbitration, Rabat                       |
| MOZAMBIQUE   | Centre for Arbitration Conciliation & Mediation (GACM) Maputo                 |
| NIGER        | Centre de Mediation et d'Arbitrage de Niamey (CMAN)                           |
| NIGERIA      | Regional Centre for ICA Lagos (RCICAL)                                        |
|              | Maritime Arbitrators Association of Nigeria (MANN)                            |
|              | Lagos Court of Arbitration Centre                                             |
|              | International Centre for Arbitration & Mediation, Abuja (ICAMA)               |
|              | Lagos Chamber of Commerce International Arbitration Centre                    |
|              | Janada International Centre for Arbitration & Mediation, Abuja                |
|              | Nigerian Chambers of Commerce Dispute Resolution Centre                       |
| OMAN         | Oman Commercial Arbitration Centre (OAC)                                      |
| PAKISTAN     | Center for International Investment and Commercial Arbitration Pakistan       |
| PALESTINE    | Jerusalem Arbitration Centre                                                  |
| QATAR        | Qatar Chamber of Commerce & Industry (QCCI)                                   |
|              | Qatar International Court and Dispute Resolution Centre (QICDRC)              |
| SAUDI ARABIA | Saudi Center for Commercial Arbitration (SCCA)                                |
|              | Saudi Sports Arbitration Center                                               |
| SENEGAL      | Arbitration Centre of the Dakar Chamber of Commerce, Industry and Agriculture |
|              | Dakar Arbitration & Mediation Centre                                          |
| SIERRA LEONE | Sierra Leone International Arbitration Centre                                 |
| SUDAN        | Arab Centre for Arbitration                                                   |
|              | The Sudanese Centre for Conciliation & Arbitration                            |

| COUNTRY                  | ARBITRATION CENTRES                                                     |
|--------------------------|-------------------------------------------------------------------------|
| THE UNITED ARAB EMIRATES | Dubai International Arbitration Centre (DIAC)                           |
|                          | International Islamic Centre for Reconciliation and Arbitration (IICRA) |
|                          | Sharjah International Commercial Arbitration Centre (Tahkeem)           |
|                          | The Abu Dhabi Commercial and Conciliation Centre ("ADCCAC")             |
| TOGO                     | Arbitration Court CATO, Lome                                            |
| TUNISIA                  | Centre for Conciliation & Arbitration of Tunis (CCAT)                   |
|                          | Al Insaf Center, Tunis                                                  |
| TÜRKİYE                  | Organization of Islamic Cooperation Arbitration Centre (OIC-AC)         |
|                          | The Istanbul Arbitration Centre (ISTAC)                                 |
|                          | Istanbul Chamber of Commerce Arbitration and Mediation Center           |
|                          | Energy Dispute Arbitration Centre (EDAC)                                |
| UGANDA                   | Center for Arbitration and Dispute Resolution of Uganda (ICAMEK)        |

It is evident that there is a necessity for the unification of these local efforts and the establishment of a standardised framework as exemplified by the implementation of international model laws in numerous countries. In this regard, it is clear that there is a possibility for regionalisation if all the major stakeholders agree on a common platform for international trade and investment dispute resolution. Such concerted efforts will not only promote a bottom-up approach in agreeing on a common platform for international trade and investment dispute settlement but will also help promote intra-OIC trade and investment. This perfectly explains the need to benefit from local practices in fashioning a regional strategy through a glocalization approach. This is further justified by the incessant calls for reforms of investor-state dispute settlement (ISDS).

Accordingly, having regard to the resolutions of the OIC Council of Foreign Ministers (CFM) and the Standing Committee for Economic and Commercial Cooperation of the Organisation of the Islamic Cooperation (COMCEC), the Arbitration Centre of the Organisation of Islamic Cooperation (OIC-Arbitration Centre) was established in Istanbul on January 25, 2020, as a result of an international agreement between the Government of the Republic of Türkiye and the Islamic Chamber of Commerce, Industry and Agriculture (now known as the "Islamic Chamber of Commerce and Development"). The OIC Arbitration Centre aspires to become a preeminent arbitration hub, addressing the aforementioned issues and establishing itself as a centralised platform for the OIC Member Countries and beyond with a particular focus on international commercial and investor-state disputes.

The OIC-Arbitration Centre has a multifaceted mission to transform the global dispute settlement landscape with a view to redefine the way and manner in which cross-border investment and commercial disputes are being resolved. The Centre has the potential to be effective in some unique, less explored areas through creative solutions and deliberate collaboration with arbitral institutions in OIC Member Countries and beyond. It seeks to lead the global landscape of dispute settlement through established regulatory framework and organisational structure, arbitration and mediation rules, and its secretariat including an International Supervisory Board comprising 21 leading arbitrators.

The OIC-Arbitration Centre is committed to resolving potential disputes within the OIC Member Countries and beyond and preventing and mitigating the challenges and risks inherent in global trade. The Arbitration Rules of the OIC Arbitration Centre were published and entered into force in 2023, followed by the Mediation Rules which were issued in 2024. In accordance with these Rules, the OIC-Arbitration Centre is prepared to provide mediation and arbitration services in an independent, impartial, equal representation, and fair manner in accordance with international standards.

## **5. Conclusion and Policy Recommendations**

The OIC member countries plays a pivotal role in global trade, offering a favourable economic environment for sustained growth and investment. However, challenges remain due to a lack of expertise in some Member Countries, efficient utilisation of resources and the absence of a legal framework which offers protection for businesses and investors. Particularly, given the inherent vulnerability of the Member Countries to a range of natural and political risks, it is imperative to prioritise the prevention and mitigation of disputes. In this regard, the standardisation of documentation pertaining to international trade and investment, based on the Member Countries' distinctive characteristics, cannot be overemphasised.

Arbitration plays a vital role in providing neutral, efficient, and party autonomy based platforms that facilitate the resolution of disputes in a fair and effective manner. Given the increasing number of pending cases involving an OIC Member Country as well as potential disputes that will emerge as a result of novel types of investment and commercial disputes, concerted efforts are needed to embrace a common platform for the resolution of international trade and investment disputes.

In consideration of the aforementioned explanations, within the context of a technologically advanced and evolving global landscape, coupled with the Member Countries' own unique challenges, the OIC Member Countries should consider introducing reforms that would ensure proper designation of a common platform for the settlement of international trade and investment disputes based on the values and ethos of the member countries to boost intra-OIC trade. Accordingly, the OIC-Arbitration Centre could serve as a potential avenue for unifying local efforts and providing a unified framework to enhance the Member Countries' role beyond that of a backdrop. Given the increasing prominence of arbitration centres in shaping policy and rule-making, the Centre also represents a crucial platform for integrating regional and international efforts to address these challenges.



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## Trade Financing in Fostering Commerce in the OIC Member Countries

*İbrahim Güran YUMUŞAK<sup>1</sup>*

### 1. Introduction

The rapid progress of globalization has had a significant impact on economic cooperation between international and regional organizations since the 2000s. At the same time, regional cooperation strengthens globalization by facilitating countries' participation. Considering developments, particularly in developed countries, developing countries have been compelled to implement reforms to secure a greater share of globalization and assume a more prominent role in international organizations. Consequently, developing countries have introduced measures and incentives for trade, production, finance, and direct investment. In this context, recent economic developments at the global level have prompted the Organization of Islamic Cooperation (OIC), which has a geographically dispersed and socio-economically heterogeneous structure, to take steps towards enhancing economic relations within itself. This development is also connected to the efforts of other organizations, such as the European Union (EU), the North American Free Trade Area (NAFTA), the Asia-Pacific Economic Cooperation (APEC), and BRICS, which is an intergovernmental organization composed of culturally and socio-economically similar economies.

The OIC is an international organization with more than fifty Member Countries from all around the world. It was founded in September 1969 and aims to strengthen cooperation and solidarity between the Member Countries to protect the rights and interests of the Islamic World. One of the objectives of the OIC's Charter is to strengthen intra-OIC economic and trade relations and economic well-being of Member Countries. Its collective GDP is estimated at 1.4 trillion US Dollars and encompasses nearly two-thirds of OPEC's annual crude oil export value.

The OIC Member Countries' share of world trade and their positions in world trade are of special interest because the members differ in many ways. The group comprises poor and rich countries, and there are significant differences in the level of economic development among the OIC Member Countries. The first group includes countries such as Afghanistan, Sudan, Yemen, and Somalia, where agriculture is a significant source of employment and income. The most important exports are based on the agricultural products in these countries. The second group of countries can be distinguished by their high population density and a relatively advanced industrial sector that outpaces agriculture. Their industrial base is also partly developed. Examples of countries in this group are Türkiye, Malaysia, Pakistan, and Egypt. These countries exhibit a certain level of diversity in production rather than being dependent on a single segment or group.

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The economic characteristics of the third group, such as Saudi Arabia, Kuwait, Qatar, and the United Arab Emirates, are based on natural resources, with a particular emphasis on oil. These countries are also members of Organization of the Petroleum Exporting Countries (OPEC), with more than half of their exports consist of oil (Tabakoğlu, 2013).

The share of the OIC in world trade is relatively small. The level of trade among the Member Countries is also low. Oil trade accounts for more than half of the trade within the OIC, whose main export commodity is oil. This reveals that these countries depend on fuel and may have difficulties increasing this trade in the future. On the other hand, the production and trade of technology-intensive goods is relatively low. Another reason for the low level of trade among Islamic countries is that they produce similar goods and depend on other countries for other goods or services.

In this regard, the study aims to examine the development and financing of foreign trade among the OIC Member Countries and provide a roadmap for the OIC and its members. In this context, the study will address the global trends and mutual challenges that the Member Countries face, taking into account their common needs, and will highlight good practices and joint efforts.

## 2. Share of OIC Member Countries in World Trade

Trade plays a significant role for OIC Member Countries for several reasons, including the necessity to generate income for the considerable proportion of the population residing in rural areas, the importance of promoting non-traditional exports to generate foreign exchange earnings, and the need for trade to stimulate employment. The OIC members typically import manufactured goods from industrialized countries, accounting for 70% of the total imports. These goods are mainly comprised of consumer durables and investment goods produced elsewhere. This situation, which has persisted for decades without significant improvement, is evidenced by the volume of trade between Islamic countries, which was still around 18% in 2021. As of 2022, Syria, Somalia, and Yemen have a ratio of 85.9 per cent, 85.7 per cent, and 79.4 per cent, respectively, in the ratio of exports to Islamic countries to total exports of goods. In addition, it is seen that countries such as Benin, The Gambia, Lebanon, Niger, Oman, Sudan, Tajikistan and Togo remain above 50% as of the same year. However, the fact that countries such as Egypt, Pakistan, and Türkiye, which represent a high proportion of the volume, remain in the 20-35 per cent band, and even for Malaysia and Indonesia, this ratio does not exceed 14 per cent, causing a negative outlook in the overall picture. On the import side, the dependence of Islamic countries on the developed countries is more clearly reflected, with Afghanistan, Mali, Comoros, and Oman being the countries where imports from Islamic countries exceed 50 per cent of total imports. Iraq and Pakistan, which can be considered as relatively large economies, performed well with 40.1 per cent and 45.5 per cent respectively. At the same time, Türkiye, Saudi Arabia, the United Arab Emirates, and Indonesia remained below 20.4 per cent (SESRI, 2024:166-172).



The proportion of exports from OIC Member Countries in global merchandise exports has exhibited considerable variation over the past two decades, ranging between 9.4% and 11.6%. The share of OIC Member Countries in world imports of goods has fluctuated between 6% and 10.6% over the past two decades. In 2022, the share in world imports of goods was 9.6%, amounting to 2.408 trillion USD. As illustrated in the table below, except in 2015 and 2020, OIC countries have consistently recorded a positive trade balance in goods. The outbreak of COVID-19 in 2020 had a damaging impact on the foreign trade of OIC Member Countries. In particular, the decline in energy prices and disruptions in supply chains resulted in a temporary reduction in the share of OIC Member Countries in world trade. They continued to be net exporters in total merchandise trade from 2021 to 2023. In 2023, 37 Member Countries had deficits, such as Türkiye Iran, Egypt, the United Arab Emirates and Morocco (SESRIC, 2024b).

**Table 1: Merchandise Exports, Import and Trade Balance (Billion USD)**

|                   | 2000 | 2005 | 2010 | 2015 | 2018 | 2019 | 2020 | 2021 | 2022 |
|-------------------|------|------|------|------|------|------|------|------|------|
| % Export of World | 9.4  | 10.4 | 11.6 | 9.6  | 10.1 | 9.6  | 8.5  | 9.5  | 11.1 |
| % Import of World | 6.0  | 7.2  | 9.7  | 10.4 | 9.2  | 9.2  | 9.0  | 9.2  | 9.6  |
| Trade Balance     | 208  | 326  | 276  | -142 | 156  | 53   | -93  | 59   | 342  |

**Source:** SESRIC, 2024a

The situation is reversed in the context of service trade, with OIC Member Countries assuming the role of net importers over the five years between 2019 and 2023. The total deficit of members in service trade was USD 33 billion in 2023, representing the lowest figure observed during the period under review. At the country level, 13 OIC Member Countries have a positive balance in 2023 (SESRIC, 2024b). The merchandise exports of the OIC Member Countries' declined by 10.4% between 2022 and 2023. This led to a decline in the share of Member Countries in global exports. In contrast, imports of goods declined by only 1.1% between 2022 and 2023. This led to an increase in the share of world imports from 9.6% in 2022 to 10.1% in 2023. (SESRIC, 2024b).

OIC Member Countries generally export raw materials and energy and import industrial and technological products. This is the most critical issue affecting their balance in world trade. For example, when oil prices are high, these countries provide a large inflow of foreign exchange, while their dependence on industrial goods increases imports. However, some countries, especially those that have increased their industrial production, such as Türkiye and Malaysia, have started to gain a stronger position in the trade balance. The share of individual Member Countries in the total merchandise exports of the OIC group continues to be dominated by a few countries (SESRIC, 2024b). In 2023, the top five exporters accounted for 62.1% of the total merchandise exports of all Member Countries. For instance, the United Arab Emirates accounted for 14.7% of total OIC exports followed by Saudi Arabia, Malaysia, Indonesia, and Türkiye.

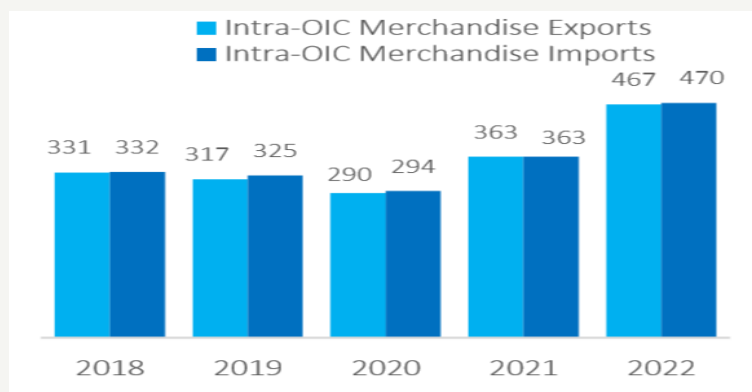


### 3. Development of Intra-OIC Trade

There has been a notable increase in the value and share of intra-OIC trade in recent years. The nominal value of total intra-OIC trade increased from 363.81 billion US dollars in 2007 to 539.54 billion US dollars in 2016. During the same period, the proportion of intra-OIC trade in total OIC trade increased by 15.38 percentage points, reaching 19.35% still below the target of 25% set for 2025.

This development may result from economic cooperation and trade facilitation agreements among OIC Member Countries. However, it demonstrates that many members continue to trade mainly with other countries worldwide. The geographical spread of OIC Member Countries across Asia, Africa, and the Middle East, coupled with significant regional differences, has a marked impact on this situation. A review of the last five years of trade in goods among the members reveals an increase of approximately 30%, particularly in 2023. Additionally, exports and imports are relatively balanced, indicating that OIC Member Countries do not have a significant trade deficit with one another (SESRIC, 2024).

**Figure 1. Intra-OIC Merchandise Trade (Billion USD)**



**Source:** SESRIC, 2024

A notable proportion of intra-OIC trade is concentrated in several key sectors and regions. However, there has been an apparent improvement in diversification efforts and integration movements from year to year. Trade Preferential System among the OIC Member States (TPS-OIC) is an important COMCEC project for enhancing trade among the OIC Member Countries. It has become operational since 1 July 2022. (COMCEC, 2022). As a flagship project of the COMCEC, the TPS-OIC is designed to facilitate trade among OIC Member Countries by providing equitable and non-discriminatory preferences (Amin and Hamid, 2009: 134). The signing of the TPS-OIC represents a pivotal moment in the promotion of intra-OIC trade. According to the OIC Statistical Report 2023, the total intra-OIC trade volume reached approximately \$441.94 billion, marking a slight increase from \$436.57 billion in 2022. This reflects a growth rate of about 1.23% (SESRIC, 2023), reflecting the significant economic activity among Member Countries. Despite the depreciation in economic domain, intra-OIC exports increased to 19.4% in 2023.

In the context of the OIC, Saudi Arabia was the most prominent exporter to other OIC Member Countries in 2023, with exports amounting to USD 75.5 billion, representing 16.7% of the total intra-OIC exports. Subsequently, the United Arab Emirates, Türkiye, Indonesia, and Malaysia were the most prominent exporters. The top three countries alone accounted for almost half (47.8%) of total intra-OIC exports, rising to 76.5% for the top 10 countries, which include Egypt, Qatar, Côte d'Ivoire, Kazakhstan and Nigeria. Among the ten countries in question, Egypt's exports to OIC countries account for 46.4% of its total exports, while Malaysia's share is 9.9%. Furthermore, by 2023, intra-OIC exports constituted 99.5% of The Gambia's total exports despite the value of these exports being less than USD 3 billion. Similarly, in the five countries with intra-OIC exports of less than USD 1 billion (Somalia, Yemen, Benin, Niger, and Tajikistan), the share ranged from 59% to 89%.

Regarding intra-OIC imports, the United Arab Emirates is the largest importer in 2023. The total value of imports from other Member Countries to the UAE was USD 80.7 billion, representing 17% of the total volume of intra-OIC imports. Subsequently, the UAE was followed by Türkiye, Saudi Arabia, Malaysia, and Indonesia, which collectively accounted for 48.9% of total intra-OIC imports. The ten countries with the highest import volumes, including Iran, Pakistan, Iraq, Egypt and Bangladesh, collectively accounted for nearly 70% of the total. Among these ten countries, Iran's imports from OIC Member Countries constituted approximately half of its total imports. In contrast, the proportion of intra-OIC imports in Türkiye, Malaysia and Indonesia remained between 13 and 14%. Iran's share of intra-OIC import was the tenth highest at 49.2%, while Mali had the highest share at 65.0%.

Despite these developments, intra-OIC trade remains quite limited compared to the rest of the world. Many studies indicate that the low level of trade among Member Countries is one of the most critical problems of integration among Islamic countries. This difference is especially striking when compared to other integration movements such as ASEAN (Amin and Hamid, 2009: 136). However, with the implementation of the D-8 Preferential Trade Agreement between Iran, Pakistan, Malaysia, Indonesia, Nigeria, Indonesia, Nigeria and Türkiye since 2016 and the gradual reduction of customs duty rates, a new window has opened for the development of foreign trade among Member Countries. These efforts aim to increase trade volume among OIC Member Countries and their share in world trade. In particular, free trade agreements among the Gulf Cooperation Council (GCC) Member States and economic integration efforts in this region have contributed to this process.

In order to achieve the objective of increasing the proportion of intra-OIC trade to 25% of total trade by 2025, the OIC has set a target. This will be accomplished by encouraging the conclusion of additional free trade agreements, removing non-tariff barriers, and developing trade infrastructure among the Member Countries. Energy exports constitute a substantial proportion of intra-OIC trade, particularly in Gulf Countries. For example, Saudi Arabia, Qatar, and the United Arab Emirates mainly export energy resources to other OIC Member Countries. Another significant area of trade among OIC Member Countries is food products. In particular, exports of agricultural products constitute a substantial proportion of trade between member states in Africa and Asia. Countries such as Türkiye, Malaysia, and Indonesia play a more important role in the trade of industrial goods and manufacturing products. Countries such as Pakistan, Bangladesh, and Türkiye also have a strong position in intra-OIC trade in textiles and clothing exports.

The lack of adequate trade infrastructure and the scarcity of viable logistics and transportation options represent the main obstacles to achieving the desired level of trade among OIC Member Countries. Furthermore, despite the recent increase in free trade agreements between OIC Member Countries, these remain inadequate. Furthermore, political instabilities, and economic challenges in certain OIC Member Countries have had a detrimental impact on trade development. In particular, the civil unrest in countries such as Syria, Yemen, and Libya have resulted in a decline in trade. Political instability and weak institutional structures create economic uncertainties that hurt investment and undermine research and development activities. The efficacy of trade agreements in facilitating intra- and extra-OIC trade flows is contingent upon the prevailing economic environment and the quality of governance in the respective countries. The establishment of robust institutions mitigates political and economic uncertainty, enhances transparency, and fosters trust, thereby stimulating long-term investment and trade. In light of these considerations, it is evident that governance reforms are imperative to optimize the benefits of free trade agreements and facilitate deeper integration into the global economy (Masood et al. 2023:377).

Using the gravity model, Gülenay (2022) analyzed the foreign trade data of 23 OIC Member Countries, including Türkiye, as a whole and in 4 separate groupings. According to the results of the study, the most statistically rational choice that will create a trade-generating effect without stealing from the trade volume of third countries is the formation of a common market with Bahrain, Iran, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Lebanon, Pakistan, Syria, Tajikistan, Türkiye, the United Arab Emirates, and Uzbekistan. In the second stage, a preference for expansion could be made, and Afghanistan, Azerbaijan, Iraq, Qatar, Libya, Egypt, Saudi Arabia, Turkmenistan, Oman, and Yemen could be included. The group of 23 countries will also provide an extra trade-generating effect in the structure formed after enlargement, as it is a statistically rational choice. There will be no transfer from the trade volume of third countries (Gülenay, 2022:110).

## 4. Trade Financing among OIC Member Countries

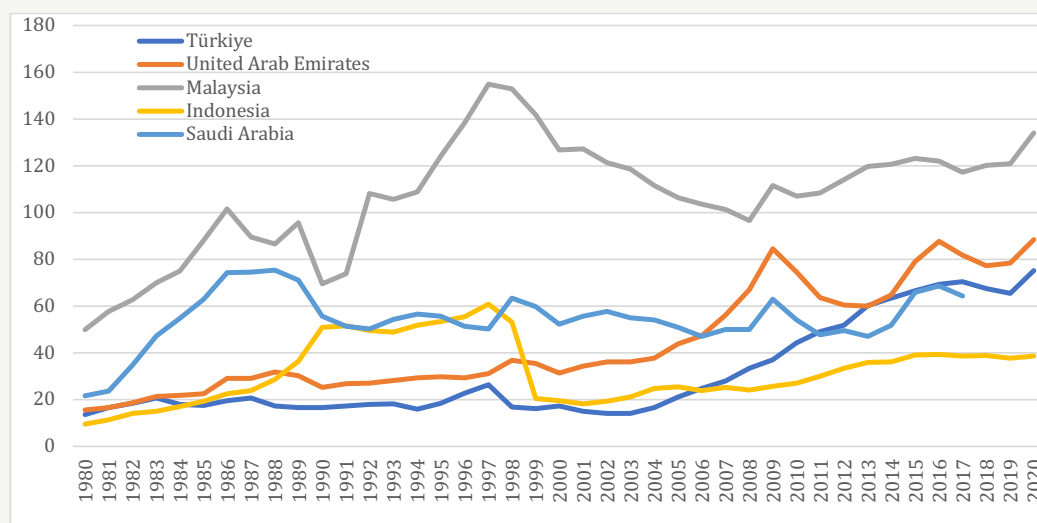
Trade financing plays a critical role in promoting mutually beneficial trade. It contributes to a faster and broader expansion of trade. The World Trade Organization (WTO) estimates that up to 80% of global trade utilizes trade finance, while the International Chamber of Commerce (ICC) estimates that the global trade finance industry will be worth \$9 trillion by 2020. The term “trade finance” encompasses a range of financial instruments utilized by importers and exporters. These include purchase order (PO) finance, stock or warehouse finance, structured commodity finance, invoice and receivables finance (discounting and factoring), supply chain finance (also known as payables finance), letters of credit (LCs), and bonds and bank guarantees (Trade Finance Global, 2024).

Adequate and secure financing of export transactions increases the competitiveness of exporting industries. Export finance also helps to promote a better sharing of risks with and among trading partners and increases the confidence of import and export business communities in the stability of the international and domestic financial system, and helps promote imports from both developed and developing countries. On a global basis, this has positive implications not only for individual countries’ economies but also for the world economy as a whole since increased export sales provide the potential for economies to expand and contribute to a more prosperous future for all nations.

Trade finance is a means of assessing credit to buyers and sellers of goods and services. It is widely accepted that trade finance can improve imports and exports. Trade financing among OIC Member Countries is one of the important tools in reducing the massive current account deficit, foreign exchange risks, and resource and capital allocation. Efficient trade financing mechanisms enable a country to promote exports, improve trade balance, and ensure sustainable economic development. It alleviates the balance of payments burden and is particularly important for most of economies within the OIC, which have little or no access to trade-enhancing external funds mainly due to their weak creditworthiness.

Figure 2 illustrates private credit from deposit money banks and other financial institutions to GDP (%) for selected OIC Member Countries. The figure shows that Malaysia has consistently maintained the highest ratio of private credit by banks and financial institutions to GDP, followed by the United Arab Emirates, particularly after 1999. Türkiye, with over 66% in 2021, is the third country with the highest ratio of private credit-to-GDP. Indonesia had the second position between 1989 and 1999, but it is worth noting that the ratio of private credit to GDP in Indonesia dropped significantly between 1997-1999, giving it the lowest position. However, it is encouraging to observe that after 2003, private credit to GDP in Indonesia saw a slight increase from 21 percent in 2003 to 31 percent in 2021. Saudi Arabia ranked third until 2010; after which it was replaced by Türkiye.

**Figure 2. Private credit by deposit money banks and other financial institutions to GDP (%)**



**Source:** World Bank, Global Financial Development, 2024.

There are several institutions that finance trade among the OIC Member Countries, including the International Islamic Trade Finance Corporation (ITFC), the Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC), and the Islamic Solidarity Fund for Development (ISFD), which operate under the Islamic Development Bank (IsDB) and were established in accordance with the relevant resolutions of the Standing Committee for Economic and Commercial Cooperation (COMCEC).



Additionally, there are other institutions, including the Arab Trade Financing Program (ATFP) and the Islamic Centre for Development of Trade (ICDT). These institutions provide trade financing, technical assistance, and development support to promote economic cooperation and enhance intra-OIC trade. They are engaged in activities aimed at increasing the volume of trade and supporting Member Countries to trade more with each other through infrastructure and trade finance projects.

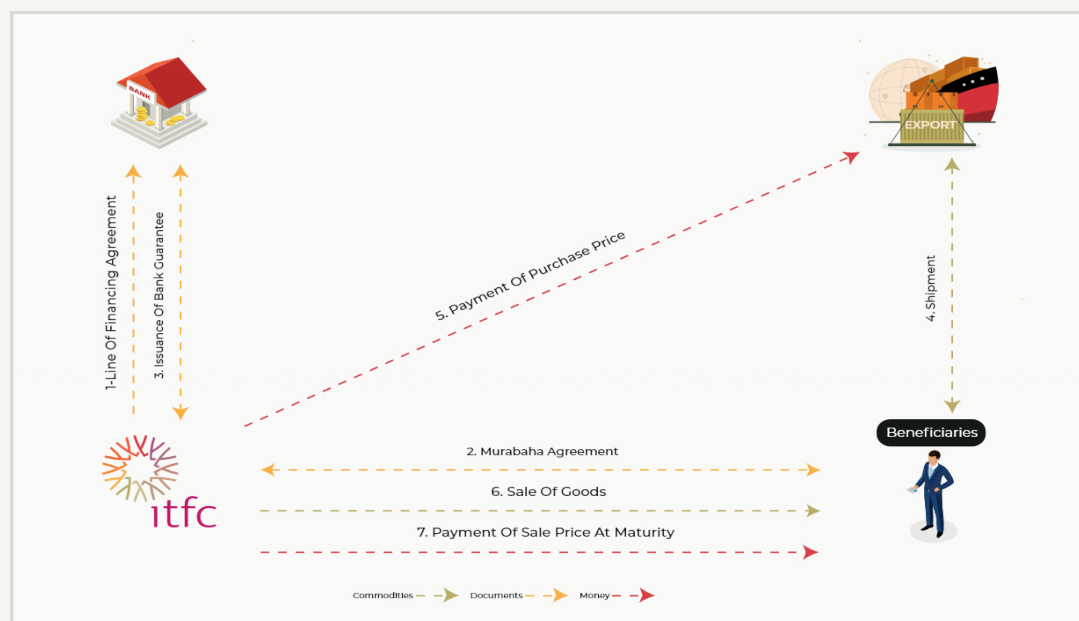
Established in 1975, the IsDB is a multilateral development bank headquartered in Jeddah, Saudi Arabia. It helps Member Countries within the OIC to develop their economies and societies. The IsDB follows Shariah principles, which ban interest and encourage risk-sharing, equity, and ethical investments (IsDB 2024). The Bank has invested over \$25 billion in trade-related infrastructure in its members. This support includes areas like transportation, energy, and logistics infrastructure. These are crucial for enhancing trade capacity and integration among OIC Member Countries. Additionally, in 2023 alone, the IsDB Group provided \$12 billion in total financing, with \$6.9 billion coming from the ITFC. In 2023, the IsDB approved 13 transport projects worth \$1.2 billion (IsDB, 2024).

The ITFC plays a pivotal role in facilitating trade finance for OIC Member Countries. It provides Sharia-compliant financing solutions, including structured trade finance, commodity murabaha, and trade facilitation programmes. Furthermore, it offers technical assistance to enhance trade ecosystems and facilitate business access to global markets. Since its inception in 2008, ITFC has provided over \$66 billion in trade financing to OIC Member Countries, with a particular focus on sectors such as agriculture, energy, and commodities. In 2022 alone, ITFC extended approximately \$6 billion in trade financing to support intra-OIC trade (ITFC, 2022). ITFC offers a wide range of financial products to farmers, agricultural cooperatives, manufacturers, oil refineries, traders, and service providers. The ITFC offers diverse financing solutions, including import, pre-export, and export finance, buyer's credit, structured commodity finance, supply chain finance, and lines of credit. These products facilitate seamless trade operations.

The steps in the line of trade financing provided by the ITFC are shown in Figure 3 and work as follows: The initial stage of the process entails signing a Line of Trade Finance Agreement between the ITFC and the Bank. Subsequently, the Bank assumes the role of an agent for ITFC, entering into a Murabaha Agreement with the final beneficiary on behalf of ITFC. Upon the conclusion of the Murabaha Agreement, the Bank's role as an agent concerning that agreement is terminated. Upon the conclusion of the agent's role, the bank issues a bank guarantee against non-payment by the client for each respective Murabaha agreement (prior to disbursement). This guarantee covers the full amount of financing, comprising both the cost and the mark-up, and is presented in a standard format provided by ITFC. In the fifth step, the goods are shipped to the client. Subsequently, ITFC (through the Bank's facilitation) pays the supplier of goods or services under the Murabaha agreement upon receipt of the disbursement request. The seventh step is when the final beneficiary (client) repays ITFC at maturity or in installments. Ultimately, after the full amount has been repaid by the end beneficiary (client), ITFC releases the guarantee.



**Figure 3. Line of Trade Financing**



**Source:** ITFC, 2024a.

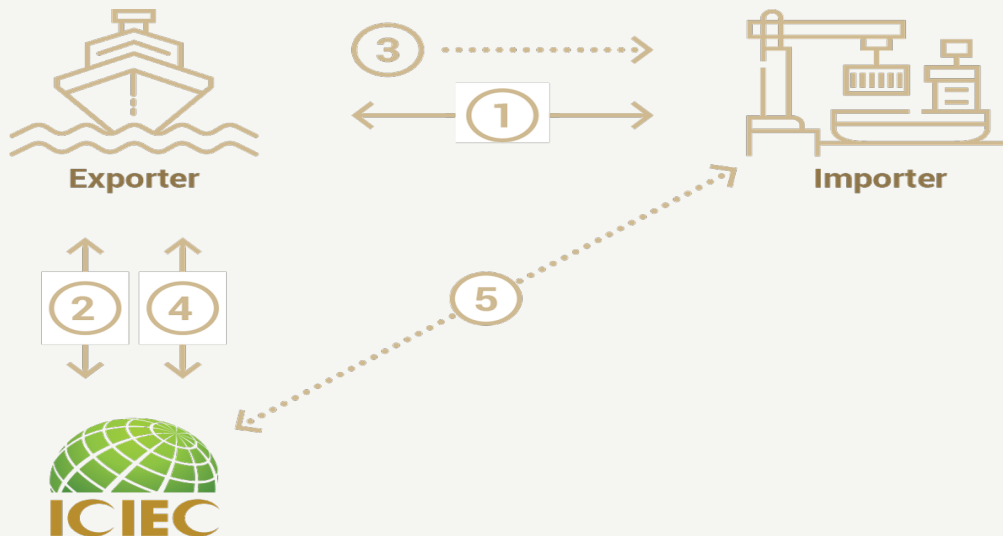
The Islamic Centre for Development of Trade (ICDT) is another important institution, established in 1984 and headquartered in Casablanca, Morocco, that contributes to trade finance in OIC Member Countries by promoting Islamic financial instruments (ICDT, 2024a). Its efforts often involve collaboration with key Islamic financial institutions such as ITFC and IsDB. Its main purpose is to promote trade among the Member Countries by providing services such as research, data collection, capacity building, and organizing trade fairs and exhibitions. In 2021, OIC Member Countries recorded halal exports worth USD 275 billion (ICDT, 2024b).

The Islamic Solidarity Fund for Development (ISFD) also aims to reduce poverty by supporting communities and promoting sustainable development in the least developed Member Countries of the OIC. The ISFD's approach to poverty reduction is based on two main ideas such as developing human capital and empowering the economy. The IsDB and 48 countries have committed a total of US\$2.6 billion. Saudi Arabia and Kuwait give the most to the ISFD. The ISFD also helps with foreign trade. Since it began, the ISFD has approved 50.1% of projects related to economic empowerment. Senegal has received the most approvals, while microfinance projects account for 13.2% and trade finance for 0.1% (ISFD, 2024).

The Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC) also plays a significant role in providing export credit insurance and supporting trade across OIC Member Countries. It has made significant progress in providing export credit insurance. In 2022, ICIEC reported a total of USD 5.9 billion in trade and investment transactions across its Member Countries. In 2023, ICIEC achieved USD 13.3 billion in insured trade and investment transactions, an increase of 14.4% over the previous year (ICIEC, 2024).

The ICIEC provides Export Credit Insurance For Corporates and it works as follows:

**Figure 4. Export Credit Insurance For Corporates**



**Source:** ICIEC, 2024.

In the initial phase of the export process, the exporter enters into a sales contract with the buyer. In the second step, the exporter enters into an insurance contract with the ICIEC, whereby the former cedes the risk of non-payment up to a certain percentage (e.g. 90 per cent) and pays the premium. Subsequently, in the third step, the exporter transports the goods to the buyers and notifies the ICIEC of the shipment. In the fourth step, in the event that a buyer defaults on their financial obligations, the ICIEC indemnifies the exporter up to 90 per cent of the sum assured. Subsequently, in step 5, the ICIEC recovers the remaining 10 per cent from the buyer and remits it to the exporter.

Furthermore, many OIC Member Countries have established their own national Export Credit Agencies (ECAs), such as the Saudi Export Development Authority (SEDA), Türk Eximbank, and Malaysia Export Credit Insurance Berhad (ECI) with the objective of providing support for exports and mitigating risks in international trade. These agencies provide guarantees, export financing, and insurance to exporters and businesses involved in trade. For instance, Türk Eximbank plays a crucial role in enhancing Türkiye's trade by providing export credits, guarantees, and insurance services to Turkish exporters. In 2022, Türk Eximbank significantly contributed to Türkiye's export financing, disbursing approximately \$19.6 billion in cash loans. The total export credits provided by the Bank amounted to around \$45 billion. Additionally, Türk Eximbank's insurance and reinsurance support reached \$25.3 billion, reinforcing the secure environment for exporters.

The bank supported about 15,440 exporter firms, with 99% of the first-time users being SMEs, highlighting its commitment to supporting smaller enterprises (Türk Eximbank, 2022). In 2023, Türk Eximbank is expected to support around \$41 billion in export financing, with about \$38 billion already disbursed as of November. The bank has reached approximately 16,800 exporters, and a notable 84% of these are small and medium-sized enterprises (SMEs), indicating a continued focus on supporting smaller businesses (Türk Eximbank, 2022).

## 5. Conclusion

The OIC Member Countries together account for about 10 percent of global foreign trade. However, this proportion varies according to the discrepancies in the economic structures of the countries in question. In recent years, the global economic environment has been characterized by a high degree of uncertainty, with the emergence of a number of significant challenges, including global economic crises and trade wars, which have had a marked impact on the foreign trade performance of OIC Member Countries. In particular, the trade wars between the United States and China have led to changes in global supply chains and fluctuations in OIC export and import volumes of the OIC Member Countries. The share of OIC Member Countries in world foreign trade varies depending on oil and natural gas exports. However, countries that have developed in the industrial, technological, and services sectors in recent years have diversified this share. Fluctuations in global energy prices, the global economic crises, and the trade wars have directly affected the trade of these countries. Many OIC Member Countries have recently diversified their trade by developing non-oil sectors. In particular, countries such as Türkiye, Malaysia, and Indonesia have endeavored to increase their share of world trade by making significant breakthroughs in the industrial, technological and service sectors. The expansion of the export range of these countries has the effect of increasing the influence of the OIC in global trade.

Despite the increase in trade among OIC Member Countries since the 2000s, the desired level of trade has not yet been reached. The proportion of intra-OIC trade in total OIC trade remains at around 20%. The main obstacles to trade are regional disparities, a lack of infrastructure, and limited economic diversification. Nevertheless, the implementation of free trade agreements, economic cooperation initiatives, and institutional and governance reforms can increase this figure in the coming period. Several external factors, including the development of global trade and cyclical fluctuations, influence intra-OIC trade. Among the endogenous factors that positively impact intra-OIC trade are the size of the economies, the provision of trade financing by the IsDB, and the existence of a common language and culture. Conversely, transport and communication costs due to the distance factor have a negative effect on intra-OIC trade (Arifai and Astiadi, 2019:128).

To enhance intra-OIC trade, Member Countries should prioritize strengthening regional trade agreements, reducing barriers, facilitating logistics networks and implementing digital trade platforms. These efforts can be supported by leveraging financing options from institutions such as the IsDB and the ITFC, which can provide essential funding for trade-related projects. In addition, raising awareness of trade opportunities and establishing trade promotion agencies can facilitate collaboration between businesses in OIC Member Countries.

Additionally, OIC Institutions, such as ICIEC, ITFC and ICDT, should collaborate to provide export financing and risk management solutions that align with the needs of Member Countries. These measures can stimulate trade within the OIC and strengthen the regional economic relations. Islamic financial instruments that are compatible with Sharia law, which are prevalent in many OIC Member Countries, could be further utilized. Finally, local export agencies can support the development of intra-OIC trade by offering alternative Islamic financial instruments to exporters or importers.



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## Cross-Border Paperless Trade: Facilitating Intra-OIC Bilateral Trade

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### Abstract

Digital trade facilitation leverages modern technologies to automate and streamline international trade processes, maintain competitiveness, and promote cross-border trade. The study aims to examine how these advancements in trade digitization affect bilateral trade flows, with a specific focus on the Member Countries of the Organization of Islamic Countries (hereafter OIC). For the empirical analysis, we applied structural gravity using the Poisson pseudo maximum likelihood estimator for the years 2015, 2017, and 2019. The digitization data were obtained from the UN Global Survey on Digital and Sustainable Trade Facilitation survey, conducted biennially since 2015. The results show significant trade gains from digitization, mainly through cross-border paperless trade. To fully realize the benefits of trade integration within the OIC, a targeted policy must address existing bottlenecks in trade digitization to facilitate bilateral trade facilitation.

### Introduction

As tariffs have gradually declined over the past decades through successive WTO negotiation rounds, trade facilitation<sup>3</sup> has emerged as the next key challenge in the international trade policy arena. In recent years, the rise of non-tariff measures (NTMs) has introduced new bureaucratic burdens and increased transaction costs, particularly for low- and middle-income countries (LMICs). In this context, paperless digital trade<sup>4</sup> offers a promising solution to improve compliance with NTMs, reduce associated costs, and improve the efficiency of trade-related bureaucracy (Shepherd & Duval, 2015), which is a crucial benefit for the economies of OIC Member Countries facing high transaction costs. Paperless trade generates substantial savings by reducing compliance costs and speeding up goods movement, leading to lower inventory expenses. Moreover, it improves port efficiency and reduces port congestion (ESCAP, 2017; Duval, Wang, & Utoktham, 2015). For instance, in the Asia-Pacific region, digitalization is estimated to reduce trade processing costs by 26.2%, cutting transaction costs by more than \$0.6 trillion (Duval, Utoktham, & Kravchenko, 2018). In addition, digitalization is pivotal in shaping global competitiveness, as countries with high levels of digital intensity benefit from a strengthening mechanism that enhances productivity, especially in tradable sectors (Fann, Hsu, and Lo, 2023).

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3 The set of policies aimed at reducing the cost and time of trade through the simplification, modernization, and harmonization of export and import processes.

4 Paperless trade refers to the conduct of international trade transactions using electronic data instead of traditional paper-based data and documents.

Due to their potential to foster economic inclusivity in developing economies involved in global trade, advancements in digital infrastructure have attracted the attention of researchers and policymakers (Acemoglu & Robinson, 2020). However, the transition to digital trade faces significant challenges due to a lack of cooperation, international standards, harmonization of legal framework and coordination mechanisms for cross-border data exchange (Roy & Xiaoling, 2020; Ha & Lim, 2014). These issues remain particularly relevant for OIC Member Countries. This widening digital divide between developed and developing nations exacerbates income inequality. This study calls for policies that promote equitable access to digital infrastructure to mitigate these disparities and ensure that all nations can benefit from the advantages of digitalization.

Despite the clear advantages of trade digitalization, challenges remain. Roy and Xiaoling (2020) evaluated the impact of paperless trade on developing Asian countries, finding significant positive effects. However, they also noted that the transition to digital trade faces obstacles, particularly in regions such as the Asia-Pacific region, where there is a lack of cooperation, international standards, and harmonization of legal framework. Ha, and Lim (2014) echoed these concerns, identifying capacity gaps and coordination issues as barriers to fully realizing the benefits of digital trade.

Empirical studies demonstrate that trade the importance of trade facilitation measures in influencing bilateral trade flows, including those by Abendin, Pingfang, and Nkukpurnu (2022), Jayasooriya (2021), Rodríguez-Crespo and Martínez-Zarzoso (2019), Ciuriak and Ptashkina (2018), Kurihara and Fukushima (2013), Liu and Nath (2013), Portugal-Perez and Wilson (2012), and Márquez-Ramos and Martinez-Zarzoso (2010), have highlighted the positive impact of trade facilitation on trade outcomes. These studies focused on factors such as internet access, information and communication technologies (ICT), and other soft infrastructure components that indirectly influence trade facilitation. However, the United Nations Global Survey on Digital and Sustainable Trade Facilitation offers a more rigorous and comprehensive trade facilitation measures.

The survey conducted biennially since 2015, compiles data on multiple digital trade measures across several countries, focusing on two key components: paperless trade and cross-border trade facilitation. Recent studies, such as De Castro, Kornher et al. (2023), have utilized this dataset to assess the impact of digitization on agricultural trade. However, their model specification does not include intra-national trade, as recommended in recent gravity estimations (e.g., Yotov, 2022).

The Organization of Islamic Cooperation (OIC) has taken initiatives such as Trade Preferential System among the OIC Member States (TPS-OIC) to reduce trade barriers and facilitate trade. Nevertheless, intra-OIC trade remains limited, warranting more effective trade facilitation strategies, mainly through digitalization. While some OIC Member Countries have recently initiated digital methods to streamline international trade processes, further strengthening of digital infrastructure and improving access to digital technologies is crucial to reduce transaction costs and stimulate intra-regional trade.

Against this backdrop, this study examines the effect of digital trade facilitation on intra-OIC bilateral trade among 39 Member Countries in 2015, 2017, and 2019. The analysis covers aggregate and sectoral trade in manufacturing, mining, energy, and agriculture. We apply a structural gravity model using Poisson pseudo-maximum likelihood with high-dimensional fixed effects. The findings reveal that digital trade facilitation has a positive and statistically significant effect on trade.



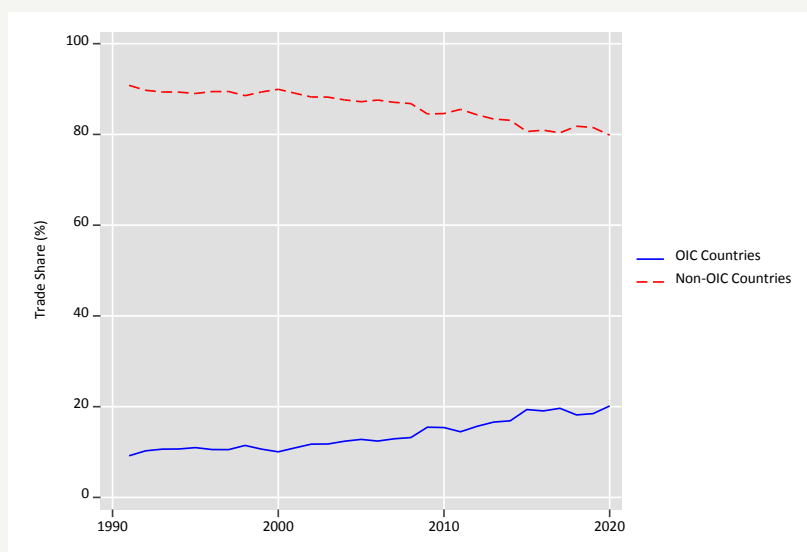
The trade-promoting role of digitization is more pronounced for the exports of mining and energy, whereas the effect is relatively smaller for the exports of agricultural products.

The remainder of the study is structured as follows: Section 2 assesses trade facilitation measures, while Section 3 reviews digitalization and international trade literature. Section 4 outlines the econometric methodology and the empirical model framework. Section 5 presents the empirical results and discussion, followed by the conclusions in Section 6.

## Intra-OIC Trade, Logistics, and Digital Facilitation

Figure 1 shows a gradual increase in trade with OIC Member Countries from 1991 to 2020, with the share rising from approximately 9% to over 20%. In contrast, trade with non-OIC Member Countries has steadily declined during the same period, from around 91% to 79%.

Figure 1. OIC trade share with OIC and non-OIC Member Countries (1991–2020)

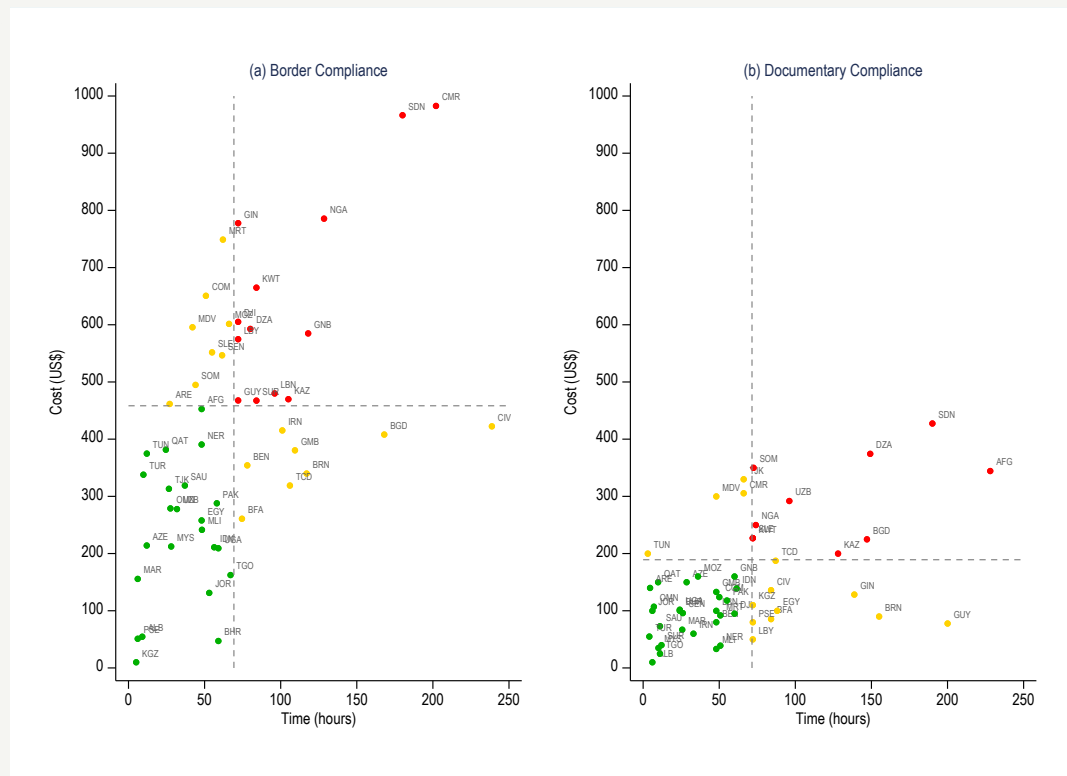


**Source:** Authors illustration based on the WITS database, 2024

This shift indicates a growing trade orientation towards OIC Member Countries, especially after 2009, when the increase became more pronounced. For policymakers, this trend suggests potential for strengthening economic partnerships within the OIC bloc, while maintaining a balanced approach to ensure diversified trade with non-OIC Member Countries. Expanding market access, reducing trade barriers and fostering stronger regional cooperation with OIC Member Countries can further enhance trade relations and economic resilience.

In terms of export efficiency across the OIC Member Countries, Figure 2 reveals significant variations in border and documentary compliance costs and times, highlighting significant logistical challenges. In Africa, countries such as Cameroon, Gabon, Sudan, Nigeria, and Sierra Leone have some of the highest costs and longest processing times, primarily due to the underdeveloped trade infrastructure. Benin and Mali perform somewhat better regarding costs but still experience notable delays in export processes. In Asia, Southeast Asian countries such as Malaysia and Indonesia, along with Central Asia's Kyrgyz Republic, show improvements in both costs and times. However, South Asian countries, especially Afghanistan, face considerable logistical challenges.

**Figure 2.** Export process efficiency in OIC Member Countries



**Source:** Authors illustration based on the World Development Indicator database, 2024

The Middle Eastern countries generally demonstrate better performance, with the United Arab Emirates (UAE) and Qatar showcasing in particular the efficient systems characterized by lower costs and faster processing times. European countries, including Albania and Türkiye, also have lower costs and faster processing times, reflecting streamlined regulatory systems. Overall, the Middle East and Europe lead in terms of efficiency, characterized by lower costs and shorter processing times, while Africa faces high costs and delays. Asia exhibits a mixed performance, with some regions improving and others, such as South Asia, struggling. Countries with high compliance costs require targeted reforms to strengthen trade facilitation, while efficient Member Countries provide valuable guidelines on how to improve trade processes.

**Table1. Logistics Infrastructure in OIC Member Countries**

| Country              | LPI Rank | LPI Score | Customs | Infrastructure | International shipments | Logistics competence | Tracking & tracing | Timeliness |
|----------------------|----------|-----------|---------|----------------|-------------------------|----------------------|--------------------|------------|
| United Arab Emirates | 7        | 4.0       | 3.7     | 4.1            | 3.8                     | 4.0                  | 4.1                | 4.2        |
| Malaysia             | 26       | 3.6       | 3.3     | 3.6            | 3.7                     | 3.7                  | 3.7                | 3.7        |
| Bahrain              | 34       | 3.5       | 3.3     | 3.6            | 3.1                     | 3.3                  | 3.4                | 4.1        |
| Qatar                | 34       | 3.5       | 3.1     | 3.8            | 3.1                     | 3.9                  | 3.6                | 3.5        |
| Saudi Arabia         | 38       | 3.4       | 3.0     | 3.6            | 3.3                     | 3.3                  | 3.5                | 3.6        |
| Türkiye              | 38       | 3.4       | 3.0     | 3.4            | 3.4                     | 3.5                  | 3.5                | 3.6        |
| Oman                 | 43       | 3.3       | 3.0     | 3.2            | 3.4                     | 3.2                  | 3.9                | 3.1        |
| Côte d'Ivoire        | 50       | 3.1       | 2.8     | 2.9            | 3.2                     | 3.2                  | 3.1                | 3.2        |
| Kuwait               | 51       | 3.2       | 3.2     | 3.6            | 3.2                     | 2.9                  | 3.3                | 2.8        |
| Egypt                | 57       | 3.1       | 2.8     | 3.0            | 3.2                     | 2.9                  | 2.9                | 3.6        |
| Indonesia            | 61       | 3.0       | 2.8     | 2.9            | 3.0                     | 2.9                  | 3.0                | 3.3        |
| Benin                | 66       | 2.9       | 2.7     | 2.5            | 2.9                     | 3.0                  | 3.2                | 2.7        |
| Lebanon              | 79       | 2.7       | 2.4     | 2.6            | 2.8                     | 2.5                  | 2.8                | 3.2        |
| Djibouti             | 79       | 2.7       | 2.6     | 2.3            | 2.5                     | 2.8                  | 2.7                | 3.6        |
| Kazakhstan           | 79       | 2.7       | 2.6     | 2.5            | 2.6                     | 2.7                  | 2.8                | 2.9        |
| Brunei Darussalam    | 80       | 2.7       | 2.6     | 2.5            | 2.5                     | 2.7                  | 2.7                | 3.2        |
| Jordan               | 84       | 2.7       | 2.5     | 2.7            | 2.4                     | 2.5                  | 2.8                | 3.2        |
| Mozambique           | 84       | 2.7       | 2.5     | 2.2            | 3.1                     | 2.4                  | 2.8                | 3.0        |
| Maldives             | 86       | 2.7       | 2.4     | 2.7            | 2.7                     | 2.3                  | 2.6                | 3.3        |
| Bangladesh           | 88       | 2.6       | 2.3     | 2.3            | 2.6                     | 2.7                  | 2.4                | 3.0        |
| Guinea-Bissau        | 88       | 2.6       | 2.7     | 2.4            | 2.9                     | 2.9                  | 2.3                | 2.4        |
| Mali                 | 88       | 2.6       | 2.6     | 2.0            | 2.6                     | 2.5                  | 2.7                | 3.1        |
| Nigeria              | 88       | 2.6       | 2.4     | 2.4            | 2.5                     | 2.3                  | 2.7                | 3.1        |
| Uzbekistan           | 88       | 2.6       | 2.6     | 2.4            | 2.6                     | 2.6                  | 2.4                | 2.8        |
| Albania              | 97       | 2.5       | 2.4     | 2.7            | 2.8                     | 2.3                  | 2.3                | 2.5        |
| Algeria              | 97       | 2.5       | 2.3     | 2.1            | 3.0                     | 2.2                  | 2.5                | 2.6        |
| Guinea               | 97       | 2.5       | 2.4     | 2.4            | 2.2                     | 2.7                  | 2.7                | 2.5        |
| Tajikistan           | 97       | 2.5       | 2.2     | 2.5            | 2.5                     | 2.8                  | 2.0                | 2.9        |
| Togo                 | 97       | 2.5       | 2.3     | 2.3            | 3.0                     | 2.4                  | 2.3                | 2.8        |
| Uganda               | 102      | 2.6       | 2.6     | 2.2            | 2.8                     | 2.5                  | 2.4                | 2.9        |
| Tunisia              | 105      | 2.6       | 2.4     | 2.1            | 2.5                     | 2.3                  | 2.9                | 3.2        |
| Comoros              | 107      | 2.6       | 2.6     | 2.3            | 2.5                     | 2.2                  | 2.9                | 2.8        |
| Morocco              | 109      | 2.5       | 2.3     | 2.4            | 2.6                     | 2.5                  | 2.5                | 2.9        |
| Gabon                | 115      | 2.4       | 2.0     | 2.2            | 2.6                     | 2.0                  | 2.5                | 3.0        |
| Guyana               | 115      | 2.4       | 2.3     | 2.4            | 2.1                     | 2.6                  | 2.2                | 2.6        |
| Iraq                 | 115      | 2.4       | 2.1     | 2.2            | 2.5                     | 2.2                  | 2.4                | 3.0        |

|                 |     |     |     |     |     |     |     |     |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Sudan           | 115 | 2.4 | 2.1 | 2.3 | 2.4 | 2.4 | 2.3 | 2.7 |
| Pakistan        | 122 | 2.4 | 2.1 | 2.2 | 2.6 | 2.6 | 2.3 | 2.7 |
| Chad            | 123 | 2.4 | 2.2 | 2.4 | 2.4 | 2.6 | 2.4 | 2.6 |
| Burkina Faso    | 123 | 2.3 | 2.0 | 2.3 | 2.4 | 2.4 | 2.2 | 2.4 |
| Iran            | 123 | 2.3 | 2.2 | 2.4 | 2.4 | 2.1 | 2.4 | 2.7 |
| Kyrgyz Republic | 123 | 2.3 | 2.2 | 2.4 | 2.4 | 2.2 | 2.3 | 2.4 |
| Mauritania      | 123 | 2.3 | 2.1 | 2.0 | 2.2 | 2.5 | 2.5 | 2.8 |
| The Gambia      | 123 | 2.3 | 1.8 | 2.3 | 2.6 | 2.3 | 2.4 | 2.6 |
| Azerbaijan      | 125 | 2.5 | 2.6 | 2.7 | 2.6 | 2.1 | 2.1 | 2.6 |
| Turkmenistan    | 126 | 2.4 | 2.4 | 2.2 | 2.3 | 2.3 | 2.6 | 2.7 |
| Yemen           | 132 | 2.2 | 1.7 | 1.9 | 1.7 | 2.6 | 2.3 | 2.8 |
| Cameroon        | 134 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 1.8 | 2.1 |
| Somalia         | 137 | 2.0 | 1.5 | 1.9 | 2.4 | 1.8 | 1.8 | 2.3 |
| Afghanistan     | 138 | 1.9 | 2.1 | 1.7 | 1.8 | 2.0 | 1.6 | 2.3 |
| Libya           | 138 | 1.9 | 1.9 | 1.7 | 2.0 | 1.9 | 1.8 | 2.2 |
| Senegal         | 141 | 2.3 | 2.2 | 2.2 | 2.4 | 2.1 | 2.1 | 2.5 |
| Sierra Leone    | 156 | 2.1 | 1.8 | 1.8 | 2.2 | 2.0 | 2.3 | 2.3 |
| Niger           | 157 | 2.1 | 1.8 | 2.0 | 2.0 | 2.1 | 2.2 | 2.3 |

**Source:** *Logistics Performance Index (2023)*, World Bank. Heatmap: Dark green represents the highest score, whereas red represents the lowest score.

In addition, the recent Logistics Performance Indicator provides a holistic assessment of trade facilitation across countries. Table 1 shows the varying logistics performance of OIC Member Countries, highlighting regional strengths and challenges. The Member Countries perform better in terms of timeliness, tracking, and tracing but lag behind in terms of infrastructure and customs procedures. Countries such as the UAE, Bahrain, Qatar, Saudi Arabia, Oman, and Kuwait demonstrate advanced logistics infrastructure and efficient customs processes in the Middle East. However, some face challenges that require tailored solutions. Eastern Asia, Malaysia, and Indonesia have robust logistics services, although Indonesia needs to improve infrastructure and streamline customs procedures. Southern Asia, including Pakistan, has low scores, specifically in customs and timeliness, which warrants comprehensive logistics reforms. Central Asia, with countries such as Kazakhstan and Uzbekistan, requires significant customs efficiency and infrastructure upgrades to facilitate regional trade. The African region generally scores lower, with Côte d'Ivoire, Benin, and Djibouti being the exceptions. Other African countries encounter challenges across multiple logistics dimensions, particularly in customs and infrastructure. European OIC Member Countries like Türkiye exhibit relatively advanced logistics standards but still need continuous improvements to foster logistics efficiency and competitiveness.

Addressing these regional disparities will require continued investment in infrastructure projects, the adoption of digitization, and the reform of customs procedures, which will be key to achieving advancements in trade facilitation measures. Notably, there is a noticeable gap in logistics performance between high performing and lower performing OIC Member Countries. Therefore, the focus should be on fostering regional cooperation and knowledge sharing to improve intra-bloc logistics efficiency.



**Table 2.** Assessment of trade facilitation by OIC Members in various dimensions

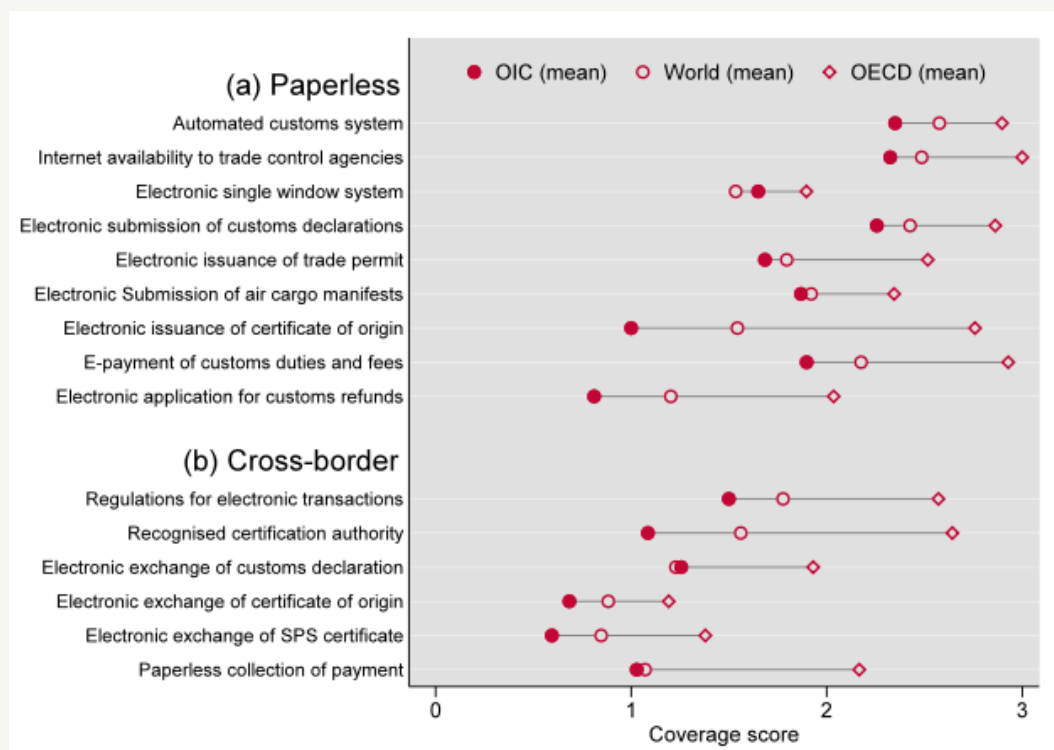
|                   | Trade Facilitation Score | Transparency | Formalities | Institutional Arrangements and Cooperation | Paperless Trade | Cross-Border Paperless Trade | Transit |
|-------------------|--------------------------|--------------|-------------|--------------------------------------------|-----------------|------------------------------|---------|
| Saudi Arabia      | 0.95                     | 1.00         | 1.00        | 0.89                                       | 1.00            | 0.78                         | 1.00    |
| Qatar             | 0.89                     | 0.80         | 0.96        | 0.89                                       | 0.96            | 0.78                         | 0.67    |
| Azerbaijan        | 0.87                     | 1.00         | 0.92        | 0.89                                       | 0.89            | 0.67                         | 0.92    |
| Indonesia         | 0.87                     | 0.93         | 0.96        | 0.78                                       | 0.96            | 0.61                         | 0.83    |
| Malaysia          | 0.87                     | 1.00         | 1.00        | 0.78                                       | 0.85            | 0.67                         | 0.92    |
| Türkiye           | 0.87                     | 1.00         | 0.96        | 0.78                                       | 1.00            | 0.50                         | 0.92    |
| Benin             | 0.86                     | 1.00         | 1.00        | 0.78                                       | 0.81            | 0.67                         | 1.00    |
| Uzbekistan        | 0.85                     | 0.93         | 0.88        | 0.44                                       | 0.89            | 0.89                         | 0.75    |
| Bahrain           | 0.84                     | 1.00         | 0.96        | 1.00                                       | 0.85            | 0.44                         | 1.00    |
| Morocco           | 0.84                     | 1.00         | 1.00        | 0.33                                       | 0.89            | 0.67                         | 0.92    |
| Jordan            | 0.83                     | 1.00         | 0.92        | 0.78                                       | 0.81            | 0.61                         | 1.00    |
| Mozambique        | 0.81                     | 0.73         | 1.00        | 0.89                                       | 0.96            | 0.33                         | 0.58    |
| Brunei Darussalam | 0.78                     | 0.93         | 1.00        | 0.67                                       | 0.78            | 0.44                         | 1.00    |
| Iran              | 0.77                     | 0.80         | 0.67        | 1.00                                       | 0.96            | 0.50                         | 0.75    |
| Kazakhstan        | 0.76                     | 0.93         | 0.88        | 0.78                                       | 0.74            | 0.50                         | 0.92    |
| Oman              | 0.75                     | 0.87         | 0.75        | 1.00                                       | 0.67            | 0.67                         | 0.83    |
| Kyrgyzstan        | 0.72                     | 0.93         | 0.67        | 0.78                                       | 0.59            | 0.78                         | 0.75    |
| Tunisia           | 0.72                     | 0.67         | 0.79        | 1.00                                       | 0.74            | 0.50                         | 0.50    |
| Pakistan          | 0.71                     | 0.80         | 0.67        | 0.78                                       | 0.85            | 0.44                         | 0.58    |
| Kuwait            | 0.69                     | 0.80         | 0.75        | 0.89                                       | 0.52            | 0.67                         | 1.00    |
| Sierra Leone      | 0.67                     | 0.87         | 0.58        | 0.78                                       | 0.81            | 0.33                         | 0.00    |
| Bangladesh        | 0.65                     | 0.87         | 0.83        | 0.67                                       | 0.59            | 0.28                         | 0.75    |
| Cameroon          | 0.62                     | 0.40         | 0.79        | 0.89                                       | 0.48            | 0.67                         | 0.83    |
| Guyana            | 0.62                     | 0.73         | 0.88        | 0.78                                       | 0.44            | 0.39                         | 0.67    |
| Niger             | 0.62                     | 0.80         | 0.67        | 0.33                                       | 0.59            | 0.61                         | 0.83    |
| Nigeria           | 0.61                     | 0.33         | 0.96        | 0.89                                       | 0.59            | 0.28                         | 1.00    |
| Albania           | 0.60                     | 0.80         | 0.71        | 0.67                                       | 0.59            | 0.28                         | 0.75    |
| Egypt             | 0.60                     | 0.60         | 0.71        | 0.56                                       | 0.63            | 0.44                         | 0.50    |
| Sudan             | 0.60                     | 0.53         | 0.63        | 0.78                                       | 0.67            | 0.44                         | 0.67    |
| Togo              | 0.59                     | 0.73         | 0.67        | 0.56                                       | 0.56            | 0.44                         | 0.92    |
| Maldives          | 0.56                     | 0.93         | 0.58        | 0.56                                       | 0.67            | 0.06                         |         |
| Cote d'Ivoire     | 0.55                     | 0.53         | 0.75        | 0.44                                       | 0.74            | 0.06                         | 0.67    |
| Mauritania        | 0.55                     | 0.40         | 0.54        | 0.56                                       | 0.78            | 0.33                         | 0.83    |
| Senegal           | 0.54                     | 0.27         | 0.50        | 0.67                                       | 0.56            | 0.72                         | 0.67    |
| Tajikistan        | 0.51                     | 0.73         | 0.79        | 0.56                                       | 0.33            | 0.17                         | 0.67    |
| Turkmenistan      | 0.49                     | 0.73         | 0.42        | 0.44                                       | 0.59            | 0.28                         | 0.67    |
| Guinea            | 0.48                     | 0.53         | 0.67        | 0.44                                       | 0.56            | 0.11                         | 0.92    |
| Burkina Faso      | 0.46                     | 0.67         | 0.58        | 0.56                                       | 0.37            | 0.22                         | 0.42    |
| Lebanon           | 0.46                     | 0.47         | 0.58        | 0.56                                       | 0.56            | 0.11                         | 0.50    |
| Afghanistan       | 0.43                     | 0.67         | 0.67        | 0.67                                       | 0.19            | 0.17                         | 0.67    |
| Yemen             | 0.43                     | 0.47         | 0.63        | 0.44                                       | 0.48            | 0.06                         | 0.00    |
| Somalia           | 0.42                     | 0.60         | 0.46        | 0.89                                       | 0.37            | 0.06                         | 0.56    |
| Guinea - Bissau   | 0.38                     | 0.53         | 0.54        | 0.44                                       | 0.30            | 0.11                         | 0.67    |
| Gabon             | 0.37                     | 0.33         | 0.50        | 0.67                                       | 0.41            | 0.00                         | 0.17    |
| Iraq              | 0.34                     | 0.67         | 0.29        | 0.89                                       | 0.19            | 0.11                         | 0.00    |
| Mali              | 0.34                     | 0.73         | 0.29        | 0.56                                       | 0.19            | 0.22                         | 0.50    |
| Comoros           | 0.33                     | 0.53         | 0.54        | 0.22                                       | 0.30            | 0.00                         |         |
| Palestine         | 0.27                     | 0.73         | 0.29        | 0.00                                       | 0.15            | 0.17                         |         |

**Source:** UN Survey on Digital and Sustainable Trade Facilitation **Note:** Values shown as percentages. *Heatmap: Dark Green represents the highest score, whereas red represents the lowest score*

The United Nations Survey on Digital and Sustainable Trade Facilitation, a joint initiative of the UN regional commissions and UNCTAD, assists countries in benchmarking and reducing the time and cost associated with cross-border trade. The analysis is based on 60 trade facilitation measures, categorized into four groups: “General Trade Facilitation,” “Digital Trade Facilitation,” “Sustainable Trade Facilitation,” and “Other Trade Facilitation.” The data show significant variations in digital trade facilitation performance across different regions. Saudi Arabia stands out with a high trade facilitation implementation rate of 95 percent, excelling particularly in the areas of transparency and paperless trade. Other countries, including Qatar, Azerbaijan, Indonesia, Malaysia, and Türkiye, also score highly. However, the survey indicates that while some countries have made notable progress, many OIC Member Countries face substantial challenges, particularly in implementing paperless trade and strengthening institutional cooperation. Addressing these bottlenecks is crucial for improving trade efficiency and reducing cross-border trade barriers, both within the OIC and globally.

Similarly, Figure 2 compares the relative coverage of digital trade facilitation measures. We plot the mean value of trade facilitation coverage of the OIC Member Countries along with the OECD and world averages for reference.

**Figure 2. Comparison of Digital Trade Facilitation**



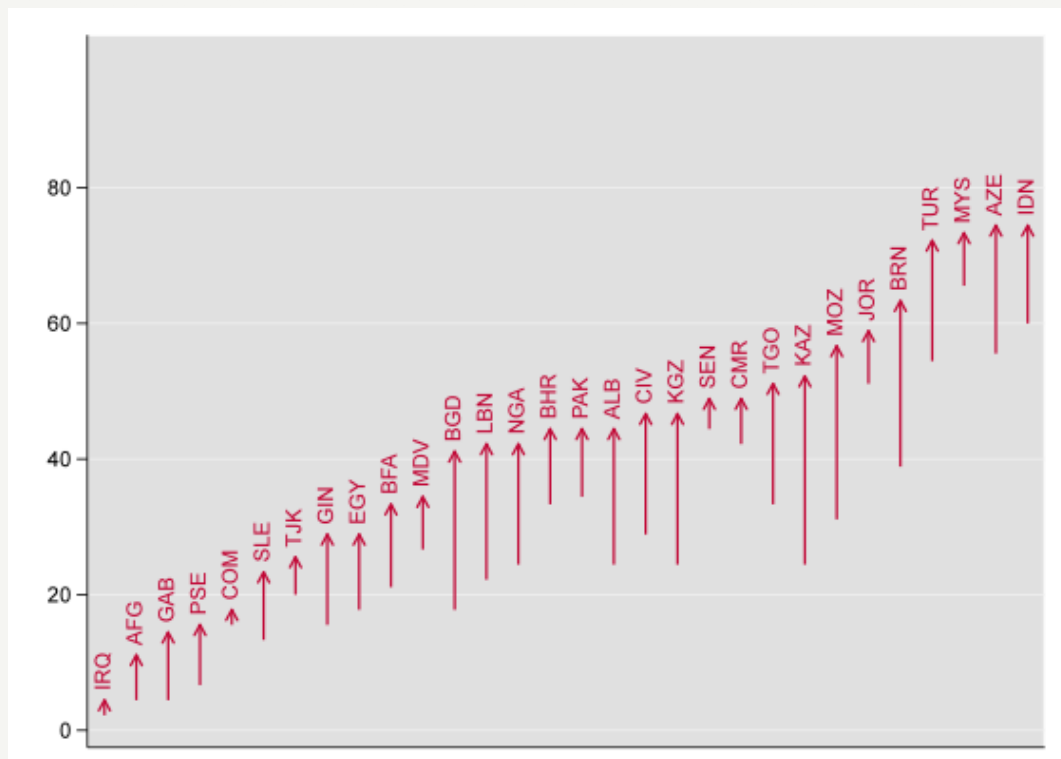
**Note** that TF coverage is scaled as 0 = no implementation, 1 = pilot stage, 2 = partial implementation, and 3 = full implementation.

**Source:** Author illustration from UN Survey on Digital and Sustainable Trade Facilitation

The performance of the OIC Member Countries is lower than the global average for almost all dimensions. The gap is wider for trade facilitation measures, including 'Electronic issuance of a certificate of origin,' 'Electronic application for customs refunds,' and 'Recognized customs authority.' Moreover, the facilitation coverage for 'electronic exchange of SPS certificate' and 'Electronic exchange of certificate of origin' is particularly low.

Furthermore, Figure 3 portrays the position of the OIC Member Countries in terms of trade facilitation coverage and relative change from 2015 to 2021. As shown, there is a wide range of trade facilitation measures implemented by each country. While countries such as Indonesia, Malaysia, and Türkiye are among the better performers in trade facilitation, Iraq, Afghanistan, and Gabon have the lowest levels of implementation. The improvement in the trade facilitation coverage over time is also heterogeneous across countries.

**Figure 3.** Changes in digital trade facilitation between 2015 and 2021



**Source:** Author's illustration from UN Survey on Digital and Sustainable Trade Facilitation

## Literature Review: Trade Digitization in OIC Member Countries

The transition from traditional paper-based methods to digital or paperless solutions has emerged as a transformative force, reshaping trade dynamics, fostering productivity, and driving economic growth across various sectors and regions. Research emphasizes its multifaceted impact, particularly in creating new opportunities for international trade. By leveraging digital tools such as electronic documentation and automated customs procedures, trade digitization streamlines cross-border processes, significantly reducing the time and costs of trade processes. As a result, numerous studies have highlighted the growing significance of digitalization and its impact on international trade. For instance, Clarke and Wallsten (2006) and Freund and Weinhold (2004) highlighted that internet penetration contributes to international trade growth. Similarly, Vemuri and Siddiqi (2009) analysed 64 countries between 1985 and 2005 and found that ICT significantly affected bilateral trade growth, particularly in emerging economies. Further work by Rodríguez-Crespo and Martínez-Zarzoso (2019) examined 120 countries from 2000 to 2014, showing that internet use facilitates trade. Lin (2015) also found that a 10 percent increase in internet users leads to a 0.2% to 0.4% increase in trade. Moreover, Xing (2018) emphasized the significance of ICT, equipped with high-speed internet and secure servers, in realizing e-trade potential.

Liu and Nath (2013) found that ICT, measured by internet subscriptions and internet hosts, fostered trade in forty emerging market economies (EMEs) between 1995 and 2010. Song, Ekoula, and Bate (2022), using data from 32 African countries (1995-2019), showed that ICT, measured by mobile phone and broadband penetration, significantly increased bilateral trade in Africa. Likewise, Dumor et al. (2024) found that greater access to ICT (the index of subscriptions to broadband, fixed telephones, mobile phones, and internet) deepens bilateral exports among Belt and Road Initiative (BRI) countries, including twenty-seven sub-Saharan African nations. However, Ismail (2021), analysing ten selected Asian countries between 2003 and 2017, argues that digital infrastructure alone is insufficient; strong internet security and consistent use by businesses and consumers are also crucial for trade facilitation. Similarly, Billon, Rodríguez-Andrés, and Rodríguez-Crespo (2023) demonstrated that broadband usage positively affects intra-SSA trade flows, while broadband also mitigates the negative effects of trade delays.

Further emphasizing the role of digitization, Shepherd and Duval (2014) showed how digitalization reduces trade costs and times in Asia-Pacific countries. They estimated that the full implementation of cross-border paperless trade would reduce export times by 44% and cut direct trade costs by up to 31%. Similarly, Duval, Utoktham, and Kravchenko (2018) found that digital trade facilitation could reduce international trade costs by 26.2% in the Asian and Pacific region, cutting transaction costs by over \$0.6 trillion. Furthermore, encouraging trade partners to implement digital facilitation measures fosters incentives for greater trade efficiency.



Bueno Rezende de Castro and Kornher (2023) extended this analysis to the agricultural sector, finding that a one-standard-deviation improvement in e-trade facilitation at the exporter level and digitalization of non-tariff measures at the importer level increases agrifood exports by 9.7% and 1.3%, respectively. This effect was particularly pronounced for processed goods and for sub-Saharan African and Asian countries. A key finding from the literature is that developing countries can benefit the most from advancements in e-trade facilitation, mainly through paperless cross-border trade, which reduces costs and time while increasing intra- and extra-regional trade.

Based on the above literature, the existing studies have primarily focused on digital infrastructure factors such as internet access, usage, broadband subscriptions, and other related factors that indirectly influence trade facilitation. However, the United Nations Global Survey on Digital and Sustainable Trade Facilitation provides a more holistic measure of trade facilitation, focusing on paperless trade and cross-border facilitation. A recent research by Bueno Rezende de Castro and Kornher (2023) used this dataset to assess digitization's impact on agricultural trade; however, it did not capture intra-national trade, a key aspect highlighted in recent gravity estimations (e.g., Yotov, 2022). This study aims to fill these gaps: Firstly, it will assess the cross-border paperless trade and digitalization across a diverse set of OIC Member Countries. Secondly, the study has used a more relevant and novel framework. Lastly, it will depart from previous research by analysing trade at the sub-sector level, specifically in the manufacturing, mining, energy, and agriculture sectors. These contributions will provide a more comprehensive understanding of how digitalization and trade facilitation affect different economic sectors across regions.

## Methodology

### 1.1. Empirical estimation approach

Analogical to the Newtonian law of gravity, the gravity trade model is the origin-destination flow model, which estimates bilateral trade flows encompassing factors related to the exporting country, the importing country, and the bilateral factors between the trading partners. We construct our gravity trade model step by step, starting with a general form presented below.

$$X_{ij} = \frac{1}{Y} \frac{Y_i E_j}{[\tau_{ij} / (\Pi_i P_j)]^{\sigma-1}} \quad (1)$$

In the equation,  $X_{ij}$  is the bilateral exports between countries  $i$  and  $j$ ;  $Y$  is the world's aggregate production;  $Y_i$  is the domestic production of country  $i$ ; and  $E_j$  is the expenditure of country  $j$ ; whereas the bilateral trade costs between the country pair  $\tau_{ij}$  are attributed to various geographic and trade policy variables, such as bilateral distance, tariffs, and the presence of regional trade agreements. Anderson and Van Wincoop (2003) coined  $\Pi_i$  as outward multilateral resistance and  $P_j$  as the inward multilateral resistance. Outward multilateral resistance refers to the resistance faced by the exports from  $i$  to  $j$  relative to other export destinations. Similarly, the inward multilateral resistance refers to the resistance faced by country  $j$  importing from  $i$  relative to other source countries.



The inclusion of the time dimension and the log-transformation of the above equation yields the following most commonly used empirical equation of the gravity trade model.

$$\ln X_{ijt} = \ln E_{jt} + \ln Y_{it} - \ln Y_t + (1-\sigma) \ln \tau_{ijt} - (1-\sigma) \ln \Pi_{it} + (1-\sigma) \ln P_{jt} + \varepsilon_{ijt} \quad (2)$$

However, there are some challenges to the empirical estimation of this model: estimating the multilateral resistance terms, dealing with the zero trade flows, and existence of heteroscedasticity of trade data. First, the theoretical constructs  $\Pi_{it}$  and  $P_{jt}$  are not directly observable. Based on the developments such as s Head, Mayer, and Ries (2010), Novy (2013), and Olivero and Yotov (2012), the current structural gravity equation includes exporter-time fixed effects and importer-time fixed effects. However, the exporter-time (and importer-time) fixed effects include country-specific time-variant variables such as GDP, exchange rate, and other national policies.

Recent developments in the gravity literature include Heid, Larch, and Yotov (2021), who introduce a novel way to modelling country-specific policy variables, i.e., as an interaction with a dummy variable for international trade. Following the same approach, Beverelli, Keck, Larch, and Yotov (2018) estimate the effect of institutional quality on bilateral trade. These models, however, require the inclusion of intra-national flows (where  $i=j$ ) in addition to international trade (where  $i \neq j$ ). The inclusion of intra-national trade in state-of-the-art gravity is emphasized in Yotov (2022).

$$X_{ijt} = \exp[\alpha_{it} + \beta_{jt} + \gamma_1 INTL_{ij} + \gamma_2 (INTL_{ij} \times DTF_{it}) + \delta_1 \ln Distance_{ij} + \delta_2 RTA_{ijt} + \delta_3 Colony_{ij} + \delta_4 Language_{ij} + \delta_5 Contiguity_{ij}] \times \varepsilon_{ijt} \quad (3)$$

$$X_{ijt} = \exp[\alpha_{it} + \beta_{jt} + \gamma_1 INTL_{ij} + \gamma_2 (INTL_{ij} \times DTFpl_{it}) + \gamma_3 (INTL_{ij} \times DTFcb_{it}) + \delta_1 \ln Distance_{ij} + \delta_2 RTA_{ijt} + \delta_3 Colony_{ij} + \delta_4 Language_{ij} + \delta_5 Contiguity_{ij}] \times \varepsilon_{ijt} \quad (4)$$

The dependent variable is exports from an origin  $i$  to a destination  $j$  in year  $t$ . Note that the variable is considered in levels, which allows for the inclusion of zero exports between the country pairs. The main variable of interest,  $DTF_{it}$ , is the index of digital trade facilitation, which enters into the equation as an interaction with the border dummy,  $INTL_{ij}$ . This allows us to estimate the effect of language commonality on international trade flows compared to intra-national trade. In equation (4), we split the digital trade facilitation into two components:  $DTFpl_{it}$  denotes digital facilitation through paperless trade measures, and  $DTFcb_{it}$  for the cross-border digital facilitation.

On the right-hand side, the first two terms capture exporter-time fixed effects and importer-time fixed effects, respectively. The bilateral distance in logarithmic form between country pairs is denoted by  $\ln \text{Distance}_{ij}$ . The variable  $\text{RTA}_{ijt}$  denotes the existence of an economic integration agreement such as a free trade agreement between the country pair. Next, three bilateral time-invariant variables  $\text{Colony}_{ij}$ ,  $\text{Language}_{ij}$ , and  $\text{Contiguity}_{ij}$  are dummies to record the colonial relationship, language commonality and common border between the trading partners, respectively.

Pertaining to computation, Poisson pseudo maximum likelihood (PPML) is the preferred estimator compared to ordinary least squares (Silva & Tenreyro, 2006, 2011); and its recent version Poisson pseudo maximum likelihood with high-dimensional fixed effects (Correia, Guimarães, & Zylkin, 2020) offers a solution to the non-existence problem (Silva & Tenreyro, 2022).

Trade facilitation measures are taken from the UN Global Survey on Digital and Sustainable Trade Facilitation; see Annex for more details. Various digital trade facilitation measures have been divided into two main groups: paperless trade and cross-border paperless trade facilitation. The level of implementation of these measures is coded in the survey as no implementation (0), pilot implementation (1), partial implementation (2), and full implementation (3). We formulate our measure of trade facilitation in the following way:  $(\sum_i^m Q_i / 3m) \times 100$ , where  $Q_i$  is the score for the  $i$ th measure, and  $m$  is the total number of measures in the category.

## 1.2. Data sources

The data on trade is obtained from the International Trade and Production Database for Estimation (ITPD-E), which comprises both international and intra-national trade flows (see Borchert et al., 2021; Borchert et al., 2022, for further details). Information concerning economic integration agreements (EIAs) is sourced from Mario Larch's database of regional trade agreements. In addition, data on other relevant variables is taken from the Centre for Prospective Studies and International Information (CEPII), see Mayer et al. (2014).

**Table 3. Descriptive Statistics**

| Variable              | Units        | Mean   | Std. dev. | Min  | Max       |
|-----------------------|--------------|--------|-----------|------|-----------|
| Trade (total)         | Billion US\$ | 496.39 | 5542.49   | 0.00 | 356881.80 |
| Trade (mining)        | Billion US\$ | 87.03  | 1322.13   | 0.00 | 79142.29  |
| Trade (manufacturing) | Billion US\$ | 345.87 | 3660.03   | 0.00 | 232782.80 |
| Trade (agriculture)   | Billion US\$ | 63.48  | 1545.81   | 0.00 | 105788.50 |
| DTF                   | Percentage   | 42.76  | 23.47     | 0.00 | 91.11     |
| DTFpl                 | Percentage   | 53.06  | 26.15     | 0.00 | 100.00    |
| DTFcb                 | Percentage   | 27.30  | 22.84     | 0.00 | 94.44     |
| lnDistance            | KM (log)     | 8.66   | 0.77      | 1.61 | 9.88      |
| RTA                   | 0/1          | 0.11   | 0.31      | 0    | 1         |
| Contiguity            | 0/1          | 0.02   | 0.13      | 0    | 1         |
| Language              | 0/1          | 0.08   | 0.27      | 0    | 1         |
| Colony                | 0/1          | 0.01   | 0.09      | 0    | 1         |

Note: Total observation N= 14810.

Table 3 presents descriptive statistics. Trade values are measured in billion USD, including both international trade and intra-national trade flows. As indicated by the tables, the occurrence of zero trade flows is included. Trade facilitation can be as low as 0%, for instance, for Iraq in 2015. The bilateral distance between country pairs is in kilometers (log transformed). Other variables are binary in nature. For instance, Contiguity is equal to 1 if the country pair share a border. Similarly, language and colonial relationships between trading partners are entered as binary dummies. RTA denotes membership of a customs union or the existence of a free trade area between the country pair.

## 2. Results and discussion

Table 4 offers regression estimates for the effect of digital trade facilitation on aggregate exports. Looking at the control variables, the signs of all coefficients are as expected. For instance, bilateral trade decreases as the geographical distance between trading partners increases. On the other hand, country pairs of countries with a common language, colonial ties, or common borders (contiguity) trade more. Lastly, compared to domestic sales, international trade faces frictions due to border procedures, as shown by the coefficient of INTL.

Regarding the digital TF measures, we find a positive and statistically significant effect on the total trade of the OIC Member Countries . More precisely, a 1 percent change in the TF measure results in a 0.036 percent change in the trade. In other words, implementing all TF measures, that is, a 100 percent improvement in the TF coverage, would result in a 3.6 percent increase in bilateral trade. When distinguishing between paperless and cross-border paperless TF measures, the trade facilitation role of the latter is evidenced.

**Table 4.** Effect of digital trade facilitation (Aggregate trade)

|                           | Total Trade          |                      |
|---------------------------|----------------------|----------------------|
|                           | (2)                  | (1)                  |
| DTF                       | 0.036***<br>(0.008)  |                      |
| DTFpl                     |                      | 0.003<br>(0.007)     |
| DTFcb                     |                      | 0.043***<br>(0.008)  |
| lnDistance                | -0.481***<br>(0.065) | -0.524***<br>(0.063) |
| RTA                       | 0.379***<br>(0.107)  | 0.396***<br>(0.103)  |
| Colony                    | 0.586***<br>(0.164)  | 0.646***<br>(0.168)  |
| Language                  | 0.345***<br>(0.121)  | 0.218*<br>(0.124)    |
| Contiguity                | 0.265*<br>(0.141)    | 0.223<br>(0.137)     |
| INTL                      | -5.082***<br>(0.571) | -4.654***<br>(0.556) |
| $\alpha_{it}, \beta_{jt}$ | Yes                  | Yes                  |
| N                         | 14,810               | 14,810               |

Notes: The value of the dependent variable, trade, is expressed in millions of United States dollars. Exporter-time and importer-time fixed effects are included but not reported for brevity. Robust standard errors in parentheses are clustered over country pairs. Statistical significance is denoted as \*\*\*  $p < 0.01$ , \*\*  $p > 0.05$ , \*  $p > 0.1$ .

As most of the OIC Member Countries are heavily dependent on exports of mining sectors, e.g., fuels and other minerals. We have estimated the effect of TF measures separately for trade in mining sectors and other goods presented in Table 5. The first thing to note is that the TF effect is almost comparable for both mining and non-mining trade. Second, the effect of both paperless, and cross-border TF measures is positive and statistically significant for the non-mining trade. In addition, the effect of the control variables is in line with theoretical expectations.

The findings of Table 5 imply that the digitization of trade procedures to reduce the time and cost of the trade process would be more conducive to exports. This is particularly important for countries with high export concentration for fewer goods.



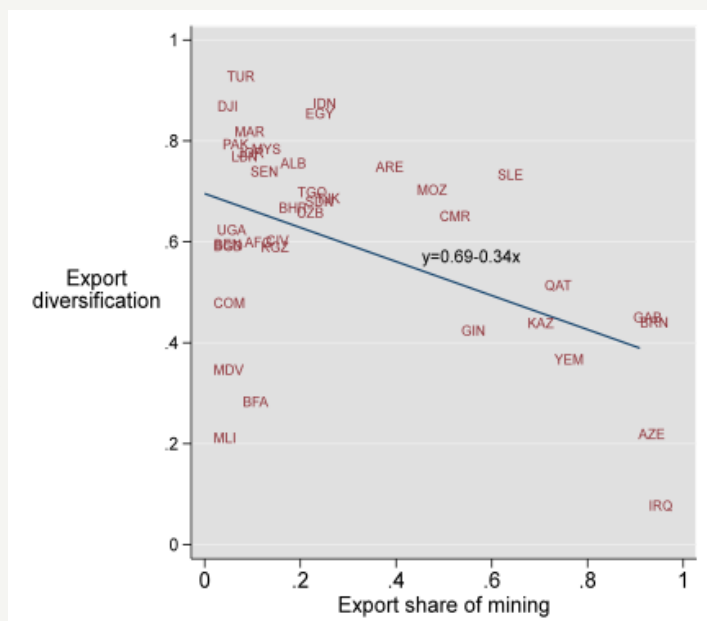
**Table 5: Effect of digital trade facilitation (Mining and Non-mining trade)**

|                           | Mining               |                      | Non-Mining           |                      |
|---------------------------|----------------------|----------------------|----------------------|----------------------|
|                           | (1)                  | (2)                  | (3)                  | (4)                  |
| DTF                       | 0.056***<br>(0.013)  |                      | 0.050***<br>(0.008)  |                      |
| DTFpl                     |                      | 0.049***<br>(0.018)  |                      | 0.016***<br>(0.005)  |
| DTFcb                     |                      | 0.003<br>(0.020)     |                      | 0.040***<br>(0.009)  |
| lnDistance                | -0.446***<br>(0.109) | -0.424***<br>(0.108) | -0.525***<br>(0.066) | -0.554***<br>(0.063) |
| RTA                       | 1.308***<br>(0.185)  | 1.331***<br>(0.188)  | 0.459***<br>(0.097)  | 0.466***<br>(0.094)  |
| Colony                    | 0.561<br>(0.426)     | 0.547<br>(0.427)     | 0.528***<br>(0.163)  | 0.564***<br>(0.165)  |
| Language                  | -0.034<br>(0.251)    | 0.022<br>(0.250)     | 0.496***<br>(0.125)  | 0.407***<br>(0.123)  |
| Contiguity                | -0.027<br>(0.305)    | -0.024<br>(0.309)    | 0.369**<br>(0.144)   | 0.341**<br>(0.140)   |
| INTL                      | -8.514***<br>(0.863) | -8.982***<br>(1.024) | -5.718***<br>(0.487) | -5.334***<br>(0.439) |
| $\alpha_{it}, \beta_{jt}$ | Yes                  | Yes                  | Yes                  | Yes                  |
| N                         | 14,810               | 14,810               | 14,810               | 14,810               |

Notes: The value of the dependent variable, trade, is expressed in millions of United States dollars. Exporter-time and importer-time fixed effects are included but not reported for brevity. Robust standard errors in parentheses are clustered over country pairs. Statistical significance is denoted as \*\*\*  $p < 0.01$ , \*\*  $p > 0.05$ , \*  $p > 0.1$ .

To dig further into this scenario, we plot the OIC Member Countries' export diversification against the mining sector's share in their total exports (Figure 4). The figure shows that some countries, including Türkiye, Indonesia, Pakistan, and Malaysia, have relatively diversified exports. On the other hand, countries such as Iraq, Azerbaijan, and Yemen, among others, are highly dependent on fuel exports and other mining products. TF measures for these countries can promote exports of non-mining goods, thus helping to diversify their exports.

**Figure 4.** Dependence on mining sector and export diversification



**Note:** The data on export diversification are taken from the United Nations Conference on Trade and Development, while the share of mining is calculated based on the trade data from the ITPDE database.

Going further, we segregate the non-mining trade into manufacturing and agriculture sectors, as shown in Table 6. Apart from the TF measure, the effects of distance and border are more potent for agricultural trade, which can be attributed to the perishable nature of products such as fruits and vegetables. Regarding the TF measure, the estimates show positive and statistically significant trade effects for both manufacturing and agricultural exports, however, the effect is more pronounced for the former. While paperless TF measures are found to encourage manufacturing trade, the effects of cross-border TF measures are observed in both sectors.

**Table 6.** Effect of digital trade facilitation (Manufacturing and agricultural trade)

|                           | Manufacturing        |                      | Agriculture          |                      |
|---------------------------|----------------------|----------------------|----------------------|----------------------|
|                           | (1)                  | (2)                  | (3)                  | (4)                  |
| DTF                       | 0.047***<br>(0.009)  |                      | 0.022***<br>(0.005)  |                      |
| DTFpl                     |                      | 0.024***<br>(0.009)  |                      | 0.006<br>(0.005)     |
| DTFcb                     |                      | 0.024**<br>(0.012)   |                      | 0.022***<br>(0.007)  |
| lnDistance                | -0.544***<br>(0.077) | -0.550***<br>(0.074) | -0.676***<br>(0.098) | -0.700***<br>(0.099) |
| RTA                       | 0.454***<br>(0.108)  | 0.456***<br>(0.107)  | 0.321**<br>(0.141)   | 0.319**<br>(0.140)   |
| Colony                    | 0.717***<br>(0.183)  | 0.723***<br>(0.184)  | 0.252<br>(0.288)     | 0.273<br>(0.280)     |
| Language                  | 0.407***<br>(0.151)  | 0.387***<br>(0.144)  | 0.225<br>(0.164)     | 0.180<br>(0.163)     |
| Contiguity                | 0.422***<br>(0.153)  | 0.416***<br>(0.151)  | 0.321<br>(0.198)     | 0.305<br>(0.193)     |
| INTL                      | -4.992***<br>(0.573) | -4.895***<br>(0.563) | -5.683***<br>(0.467) | -5.514***<br>(0.466) |
| $\alpha_{it}, \beta_{jt}$ | Yes                  | Yes                  | Yes                  | Yes                  |
| N                         | 14,810               | 14,810               | 14,810               | 14,810               |

Notes: The value of the dependent variable, trade, is expressed in millions of United States dollars. Exporter-time and importer-time fixed effects are included but not reported for brevity. Robust standard errors in parentheses are clustered over country pairs. Statistical significance is denoted as \*\*\*  $p < 0.01$ , \*\*  $p > 0.05$ , \*  $p > 0.1$ .

This study utilizes a gravity model of trade grounded in theoretical principles to provide empirical evidence supporting the favorable impact of trade facilitation (TF) measures on the bilateral exports of OECD countries. The findings indicate that the implementation of TF measures leads to an increase in the total trade of goods, including both manufactured and agricultural products.

As a result, efforts to streamline, standardize, and digitize customs procedures play a significant role in promoting the active participation of countries in the global trading network and facilitating their integration into global value chains. Reducing the time and costs associated with cross-border trade, as well as building confidence through enhanced transparency in trade processes, are identified as potential mechanisms driving this expansion of trade. The relative importance of these mechanisms necessitates further exploration. Additionally, it is worth noting that policy measures aimed at strengthening electronic infrastructure, with a focus on minimizing human interaction, will be essential in mitigating the disruptive effects of future pandemics on trade flows. Some of the OIC Member Countries are heavily dependent on exports of mining sectors, e.g., fuels and other minerals. TF measures for these countries can promote exports of non-mining goods, thus helping to diversify their exports.

## Appendix

**Table A1.** List of Countries

|                   |                 |                      |
|-------------------|-----------------|----------------------|
| Afghanistan       | Guinea          | Pakistan             |
| Albania           | Indonesia       | Palestine            |
| Azerbaijan        | Iraq            | Qatar                |
| Bahrain           | Cote d'Ivoire   | Senegal              |
| Bangladesh        | Jordan          | Sierra Leone         |
| Benin             | Kazakhstan      | Sudan                |
| Brunei Darussalam | Kyrgyz Republic | Tajikistan           |
| Burkina Faso      | Lebanon         | Togo                 |
| Cameroon          | Malaysia        | Türkiye              |
| Comoros           | Maldives        | Uganda               |
| Djibouti          | Mali            | United Arab Emirates |
| Egypt             | Morocco         | Uzbekistan           |
| Gabon             | Mozambique      | Yemen                |

**Note:** List of the 39 OIC Member Countries included in the regression analysis

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## THE IMPORTANCE OF SMEs IN THE OIC MEMBER COUNTRIES

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### Introduction

Economic activities are conducted by various economic agents, which differ based on the nature of their business operations and the institutional frameworks governing the country. Globalization has been a driving force in the transformation of companies, leading them to expand significantly. In several instances, this expansion has given rise to large multinational corporations that operate across borders. Despite this trend towards globalization and the emergence of large corporations, it is crucial to recognize that the backbone of any economy, irrespective of its size or level of advancement, remains the small and medium-sized enterprises (SMEs).

Definitions for SMEs can vary from country to country. These classifications typically hinge on various quantitative factors, including the number of employees, annual turnover, or total assets, which fall below certain thresholds established by the governing authorities of a country or a specific region. Consequently, enterprises are broadly categorized into two main groups, small enterprises and medium enterprises, based on these criteria. Small enterprises are characterized by their smaller workforce, usually having fewer than 50 employees. This category captures the essence of small-scale operations that often serve localized markets or specialized sectors. On the other hand, situated between small and large corporations, medium businesses typically employ between 50 and 250 individuals. They may operate in wider markets than small enterprises and often have greater operational and financial capacities.

Recognizing the limitations of using employee numbers as the sole criterion for classification, some countries have incorporated additional indicators such as annual turnover and total assets. This multi-faceted approach aims to capture a more accurate representation of an enterprise's scale and its economic footprint within a jurisdiction. For instance, within the European Union (EU), the criteria for defining a medium-sized enterprise extend beyond the workforce size to include financial metrics. Specifically, a medium-sized enterprise is identified as having fewer than 250 employees and achieving an annual turnover not exceeding €50 million or a total balance sheet not exceeding €43 million (European Commission, 2020). This two-criteria approach allows for a more nuanced classification that can accommodate the diverse economic activities and scales of operation that exist in the EU's integrated market. However, this expanded framework for defining SMEs underscores the complexity and diversity of business entities operating across various global markets. By tailoring definitions to include a broader range of indicators, policymakers can more effectively target support measures and regulatory frameworks that facilitate the growth and sustainability of SMEs within their respective economic ecosystems.

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Micro, Small, and Medium-Sized Enterprises, commonly abbreviated as MSMEs, offer another categorization within the realm of SMEs by deliberately incorporating micro-enterprises. These micro-enterprises represent the smallest units within the business ecosystem. They are characterized by their small size, employing fewer than 10 individuals. Such enterprises might also be identified by their relatively low turnover or asset value, highlighting their modest financial footprint. Micro-enterprises are particularly common in developing countries. Their prevalence is largely due to the minimal capital requirements for startup and operation, making them accessible to a broader segment of the population. Additionally, these enterprises, many of which may function in an informal sector, play a pivotal role in those economies by facilitating economic participation at the grassroots level.

The classification of MSMEs is especially significant in developing economies, including many OIC Member Countries, where such enterprises are essential to domestic economic activities. By providing employment opportunities, micro-enterprises play a crucial role in job creation, especially in low- and middle-income countries. Not only do they dominate the economic landscape but they also serve as a critical mechanism for reducing poverty and enhancing social welfare. Moreover, their contribution spans beyond mere numbers, affecting various facets of economic and social development, from job creation and poverty alleviation to fostering innovation and sustainability.

SMEs<sup>2</sup>, including micro-enterprises, are key drivers of innovation, fostering economic diversity, and facilitating inclusive economic growth. Moreover, they are integral to job creation. Accordingly, the World Trade Organization (WTO) reports that 95% of the world's businesses are MSMEs, which are responsible for 60% of global employment (WTO, 2024). They are important not only in quantitative terms but also in terms of diversifying the employment landscape. SMEs are often more flexible than larger corporations, allowing them to adapt to changes in the market and innovate, thereby creating new jobs.

Regarding the sheer number of businesses, SMEs far outnumber large corporations, highlighting their prevalence and importance in all economies. According to the ILO (2019) figure regarding employment share by enterprise size and the self-employed around the world, while self-employed (1 person) constitutes 32.8%, micro, small, and medium/large enterprises shares are 23.1%, 14.3%, and 29.3%, respectively. This also indicates the importance of MSMEs in the number of jobs created globally.

SMEs contribute significantly to various other economic measurements, such as contribution to GDP, innovation, and entrepreneurial activity. Regarding economic impact, formal SMEs contribute up to 40% of national income (GDP) in emerging economies (World Bank, 2019). When taking into account the informal SMEs, the figures substantially increase. Also, SMEs contribute considerably to exports and imports, facilitating international trade even as they bolster domestic markets.

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<sup>2</sup> Since most OIC Member Countries are classified as developing countries, micro-enterprises are the main part of their economic activities. Therefore, SMEs and MSMEs are used interchangeably in the paper.



The resilience and dynamism of SMEs make them essential not only for small economies but also for advanced countries, proving that their role in global economic stability and growth cannot be overestimated. Given the pivotal role that SMEs play in not only bolstering the economic fabric of developing nations but also in sustaining and enhancing the economic resilience of advanced economies, there has been a concerted effort by various stakeholders to implement a range of support mechanisms for SMEs during and after the COVID-19 pandemic. Comprehensive strategies and policies have been adopted globally, including in OIC Member Countries, to safeguard the interests and continuity of SMEs amidst the unprecedented economic disruptions caused by the pandemic (COMCEC, 2021). These initiatives underscore the recognition of SMEs' integral contribution to employment, innovation, and economic diversification, thereby emphasizing the need for robust support systems to mitigate the adverse impact of such global crises on these vital entities.

## **Current State of SMEs in OIC Member Countries and the Challenges They Faced**

In the global economic discourse, SMEs are increasingly recognized not only as significant components of the economic framework but also as pivotal entities in the development trajectories of nations, especially within the context of the OIC Member Countries. The multifaceted role of these enterprises extends beyond mere economic contributions; they are integral in fostering domestic production, service provision, and, most importantly, the creation of employment opportunities. This is particularly pronounced in countries where a considerable segment of the economy operates in the informal sector, thereby positioning micro-enterprises not only as commercial entities but as vital contributors to the socio-economic fabric.

As highlighted earlier, the criteria for what constitutes an SME vary from country to country, as do the Member Countries of the OIC. The report “Business Support Network for Improving Competitiveness of SMEs in OIC Countries” notes significant variations in how countries define micro-enterprises. For instance, nations such as Türkiye, Cote d’Ivoire, Iran, Nigeria, and Oman classify businesses with fewer than 10 employees as micro firms. In contrast, Kazakhstan and the Kyrgyz Republic consider firms with up to 15 employees to fall under this category. Conversely, Malaysia, Qatar, and Saudi Arabia set the bar at a maximum of 5 employees for micro-enterprise classification. At the other end of the scale, Niger and Yemen define micro firms as having less than 3 employees (for a comprehensive overview of OIC countries, see IsDB-ICDT-KOSGEB, 2024).

In elucidating the significance of MSMEs within the OIC context, the Islamic Development Bank (IsDB) offers compelling quantitative insights. A notable statistical revelation is that, on average, the prevalence of MSMEs stands at 25.2 entities per 1,000 inhabitants globally. This metric, however, experiences a significant amplification within OIC Member Countries, where the figure rises to 53.2 MSMEs per 1,000 individuals by 2020 (IsDB, 2020). This pronounced disparity not only highlights the increased reliance on the MSME sector within these economies but also delineates a distinct economic paradigm that diverges from global patterns.



The IFO (2019) statistics provide valuable insights into the significance of MSMEs in OIC Member Countries, particularly in terms of the employment distribution across different enterprise sizes and the self-employed. In the MENA region, self-employed individuals (1 person) account for 43.7% of total employment, while micro enterprises (2-9 persons) account for 24.7%. Small enterprises (10-49 persons) contribute 11.5%, and medium/large enterprises (50+) represent 20.1% of the total employment. This means that around 80% of employment in the MENA region is generated by self-employed, micro, and small enterprises. In Sub-Saharan African countries, many of which are OIC Members, the significance of MSMEs is even more pronounced, with the following distribution: self-employed (50.0%), micro-enterprises (34.3%), small enterprises (6.5%), and medium/large enterprises (9.3%). These figures clearly demonstrate the vital role of MSMEs in job creation for OIC Member Countries. Since MSMEs are recognized as major employment generators, in Member Countries, where unemployment can be a significant issue, MSMEs provide a critical solution. They create a myriad of job opportunities, often in areas where larger corporations do not operate. This capacity for job creation is not only vital for economic stability but also for social harmony, as it directly reduces unemployment rates and fosters a sense of community productivity.

The criticality of MSMEs in OIC countries is further accentuated during periods of economic and social perturbations, exemplified by the COVID-19 pandemic. Such crises highlight the need for robust support mechanisms specifically aimed at this sector, with a dual objective: ensuring the continuity of these enterprises and harnessing them as catalysts for economic recovery and resilience enhancement. Supporting MSMEs in these challenging times goes beyond simply preserving businesses; it is fundamentally about protecting the economic base and social structure of OIC Member Countries. Consequently, there is a pressing need for the formulation and implementation of policy frameworks and institutional support mechanisms that recognize and respond to the disproportionate role that MSMEs play in these economies, especially in their capacity to mitigate the impact of crises and facilitate economic recovery (COMCEC, 2020).

MSMEs play a crucial role in the economic landscape of Muslim countries, contributing significantly across various dimensions. One of these dimensions are related to economic development. Firstly, SMEs are pivotal to the economies of Muslim countries, acting as a backbone by contributing a substantial percentage to the GDP. This contribution is multifaceted, stems from their widespread presence in all sectors, including manufacturing, services, and technology. Their agility allows for rapid adaptation to market changes, fostering economic resilience and stability. By analyzing MSMEs' revenue generation, employment, and innovation, one can gauge their indispensable role in boosting economic growth and diversification. MSMEs play a significant role in the economic development of rural and less-developed areas. By establishing operations in these regions, they contribute to a more balanced regional economic development, reducing urban-rural disparities. Their presence in remote areas encourages the circulation of money within the local economy, stimulates the creation of secondary businesses, and promotes infrastructure development.

By their very nature, MSMEs are nimble and innovative, driving competition within the market. In OIC Member Countries, MSMEs introduce novel products and services, challenging larger entities and contributing to a dynamic and competitive business environment. Their innovation extends from product development to new business models, often incorporating traditional knowledge and local resources, which can lead to sustainable and inclusive economic growth.

Apart from their economic importance in OIC Member Countries, SMEs' social significance is also vital for those countries. Beyond their economic impact, MSMEs are instrumental in supporting community development and social cohesion. They often foster strong local networks, support local initiatives, and contribute to the social fabric by promoting values such as entrepreneurship and mutual support. These enterprises act as anchors in their communities, providing stability and a sense of belonging to their Members.

One of the unique aspects of SMEs in Muslim countries is their role in preserving and promoting local cultures and traditions. Through their products and services, they keep alive traditional crafts, culinary arts, and cultural practices, often integrating them into the modern economy. This helps not only to preserve a rich cultural heritage but also to showcase it to the wider world, fostering cultural exchange and understanding. Lastly, SMEs in Muslim countries are not just economic entities; they are the lifelines of their communities and cultures, driving growth, innovation, and social cohesion. Their multifaceted contributions underscore the importance of supporting and nurturing these enterprises for the holistic development of societies.

Although SMEs play a significant role in economic and social activities in OIC Member Countries, these enterprises face a number of challenges that hinder their growth and sustainability. One of the primary obstacles SMEs encounter is limited access to finance. Traditional financial institutions often perceive lending to these businesses as high risk, resulting in stringent credit conditions and high interest rates. Consequently, SMEs struggle to secure the necessary capital to expand their operations or invest in new projects.

Market access and competition is another critical issue. SMEs often compete with larger enterprises that have more resources, superior market knowledge, and established customer bases. Additionally, globalization has intensified competition, with SMEs facing pressure from foreign companies entering their markets. This scenario requires continuous innovation and adaptation strategies from SMEs to remain competitive. Pertaining to the discussed matters, the process of internationalization presents itself as a significant obstacle impeding the growth potential of SMEs. This challenge is crucial as it encompasses various complexities associated with entering and expanding in foreign markets, including but not limited to, legal and regulatory compliance, as well as the need for substantial financial resources and strategic planning.

The ability of SMEs to successfully overcome these hurdles is imperative for leveraging the opportunities that globalization offers for business expansion and competitiveness on the international stage. Technological adoption is another hurdle for many SMEs in OIC Member Countries. The rapid pace of technological advancement necessitates constant updates and investments in new technologies. However, limited financial resources, lack of skilled personnel, and insufficient knowledge about the benefits of digital transformation impede SMEs' ability to integrate technology effectively into their operations.

Lastly, regulatory barriers may pose a significant challenge for SME in some countries. They must navigate a complex web of laws and regulations, which can be both time-consuming and costly. Compliance with these regulations requires resources that many SMEs do not have, diverting their focus away from their core business activities.

Addressing these challenges requires concerted efforts by both government bodies and the private sector to create a more supportive environment for SMEs. This could include financial support mechanisms, enhanced market access strategies, and initiatives to boost technological capabilities among SMEs and regulatory reforms.

## **Future Direction: Empowering SMEs in OIC Member Countries**

As discussed earlier, the barrier of access to finance represents a significant hurdle for MSMEs in initiating new ventures or in the expansion and sustenance of their ongoing economic endeavors. The issue is more valid for OIC Member Countries, where access to finance can be one of the biggest challenges for businesses. According to the International Finance Corporation (IFC), approximately 43% of MSMEs in developing countries face a significant funding gap, with an unmet financing requirement estimated at nearly \$4.1 trillion (IFC, 2022). This substantial shortfall in financial support hinders these enterprises from expanding their operations and generating employment opportunities. Without access to the necessary financial resources, these MSMEs are unable to thrive and contribute effectively to economic growth and development in their respective countries.

The challenge of access to finance can be partially alleviated by institutions that specifically focus on supporting MSMEs. A notable observation within the context of the OIC Member Countries is the existence of specialized institutional frameworks aimed at facilitating SME financing. These frameworks are distinguished by their provision of financing solutions to SMEs at affordable rates, predominantly through subsidy-based programs. It is primarily governmental bodies that underpin these institutions, with funding sourced directly from national budgets or alternative funds. For instance, the Small and Medium Enterprises Development Organization (KOSGEB) in Türkiye (KOSGEB, 2024) and the National Fund for SME Development in Kuwait (The National Fund, 2024) serve as exemplary models of such institutional structures.

These entities not only provide financial assistance but also encapsulate a broader support mechanism for SMEs, including consultancy, training, and market access facilitation, thereby addressing several facets of SME development needs. The successful implementation and outcomes of these institutions in certain OIC Member Countries underscore the viability and effectiveness of this approach in empowering SMEs by alleviating financial access constraints. It posits a compelling case for the replication of such practices across other OIC Member Countries. By adopting similar frameworks, these countries could significantly enhance the entrepreneurial ecosystem, thereby fostering economic diversification, innovation, and job creation. This, in turn, could lead to more resilient and sustainable economic growth within the OIC region, aligned with the broader objectives of economic cooperation and development among the Member Countries.

Therefore, it is recommended for the OIC Member Countries to consider the establishment or enhancement of institutional structures akin to those of KOSGEB in Türkiye and its equivalents, as part of a strategic approach to empower SMEs. This could involve the development of policy frameworks, allocation of budgetary resources, and the establishment of partnerships between government entities, financial institutions, and the private sector to ensure a holistic and supportive environment for SME growth and development.

In the context of addressing the access to finance challenges faced by SMEs in the OIC Member Countries, a paradigm shift towards Islamic micro financing emerges as a pivotal solution. This innovative financial model distinctively targets low-income groups and differs from traditional financial systems by strictly adhering to Shari'ah principles. Unlike conventional microfinance institutions (MFIs), Islamic microfinance entities abstain from engaging in any interest-based financing activities, aligning their operations with Islamic jurisprudence.

The relevance of Islamic microfinance in OIC Member Countries is further underscored by the demographic composition of these nations, where a majority of the population practices Islam. This congruence fosters a conducive environment for Islamic microfinance to flourish, offering a Shari'ah-compliant alternative to those who, for religious reasons, might be averse to seeking financial services from conventional microfinance institutions. Consequently, Islamic microfinance not only addresses the financial needs of micro and small enterprises but also plays a crucial role in enhancing financial inclusion across these countries. Islamic MFIs operationalize through a diverse array of institutional structures, including but not limited to waqf (endowments), profit-seeking entities, non-governmental organizations (NGOs), cooperatives, and other organizational forms. This multiplicity in operational models enables Islamic MFIs to cater to the varied needs of their clientele, ensuring a broader reach and impact.

A notable aspect of Islamic microfinance is its presence and success in several OIC Member Countries, with Pakistan, Bangladesh, Malaysia, and Indonesia standing out as prime examples. These countries host a number of Islamic MFIs that have effectively harnessed various institutional structures, funding sources, financing methods, and risk mitigation tools. The business models adopted by these institutions demonstrate a viable pathway for financial inclusion and SME support within the Islamic financial framework. Particularly, Islamic microfinance institutions, utilizing interest-free and zero-cost qard al-hassan-based financing, hold significant promise in offering crucial support to micro-enterprises (Ülev, Savaşan & Özdemir, 2022). For OIC Member Countries aiming to bolster their SME sectors, a detailed examination of these successful Islamic microfinance models is imperative. By analyzing the institutional structures, funding mechanisms, product offerings, and risk management strategies employed by these pioneering Islamic MFIs, other OIC countries can gain valuable insights. These insights can then be tailored and replicated within their local contexts, thereby promoting economic empowerment and financial inclusivity among micro and small enterprises through the principles of Islamic finance.



In recent years, technological advancements have given rise to innovative financing models, with crowd funding platforms being a notable development. These platforms offer alternative funding sources for MSMEs and entrepreneurs, bypassing the traditional risk-averse approach of financial institutions. Within crowd funding, debt and equity-based models stand out as beneficial options for new entrepreneurs seeking seed capital. Debt-based crowd funding allows for peer-to-peer lending, while equity-based crowd funding enables direct investment in exchange for equity shares. These models have significantly impacted the entrepreneurial ecosystem, providing crucial funding and market validation for start-ups and small businesses. As one of the leading Shari'ah-compliant crowd funding platforms, Ethis, with licenses in Malaysia, Indonesia, and Oman, is a primary example of benefiting from the facilities of the crowd funding model (Ethis, 2024).

Market access and the internationalization process represent another pivotal challenge for MSMEs in the OIC Member Countries. The development and implementation of comprehensive capacity-building programs are paramount, particularly for micro-enterprises. Such initiatives are essential for equipping these entities with the requisite analytical tools to effectively assess market conditions and identify potential opportunities. In this context, the role of government entities and civil society organizations, including chambers of commerce and trade associations, becomes critically important.

These institutions possess significant power and expertise concerning market dynamics and are tasked with safeguarding the interests of MSMEs. Their involvement is crucial in creating a conducive environment that fosters the growth and internationalization of MSMEs. By providing support in the form of policy advocacy, regulatory guidance, and access to market intelligence, these organizations play a fundamental role in ensuring that MSMEs are well-positioned to navigate the complexities of domestic and international markets. Furthermore, their efforts in defending the rights of enterprises are instrumental in establishing a level playing field, thereby facilitating a more inclusive and equitable economic development landscape in OIC Member Countries.

International organizations also can have a supportive role in the internationalization process of SMEs by creating value chains and collaboration opportunities among Member Countries. The recent effort of the COMCEC to prepare a well-designed SME Program ensures cooperation in the field of SMEs among the Member Countries. The intention of establishing the SME program was first added to the agenda of the 38th Ministerial Meeting of the COMCEC in 2022 and welcomed at the 39th Ministerial Meeting of the COMCEC in 2023. The main target of the SME Program is to support the internationalization process of SMEs in the Member Countries by achieving the three sub-targets: Improving the Capacity of SME Support Institutions on Internationalization, Enhancement of Intra-OIC Trade, and Formation of SME Network Mechanism (COMCEC, 2024). These comprehensive efforts hold the potential to foster new opportunities for cooperation among countries, thereby offering SMEs the chance to expand their operations into the global market.



The advent of technological development heralds substantial opportunities for corporate entities. However, such advancements necessitate considerable investment in both technical infrastructure and human capital. While this poses a challenge for medium-sized enterprises, it becomes a more pronounced issue for small and micro enterprises. These smaller entities must exercise prudence in their investment decisions, as there is a heightened risk of a significant loss of capital. This is particularly critical given that small and micro enterprises often operate with limited financial resources, making the potential impact of misjudged investments more severe. Therefore, while the allure of integrating cutting-edge technology into business operations is strong, a meticulous assessment of the financial implications and the capacity of the organization to absorb and adapt to technological changes is imperative. This cautious approach will ensure that the pursuit of innovation does not inadvertently jeopardize the financial stability of the enterprise.

## Conclusion

SMEs occupy a central position in the economic landscape across nations, acting as critical drivers of economic expansion, job creation, innovation, and social cohesion. Their role is multifaceted, exerting a profound impact not only on macroeconomic variables but also on enhancing community inclusiveness and resilience. This chapter delved into the essential roles and contributions of SMEs, particularly in OIC Member Countries, articulating their significance through various perspectives.

Despite their critical importance, SMEs encounter numerous challenges that impede their growth and sustainability. One of the most pressing issues is their struggle to access affordable finance, which is essential for their expansion and operational efficiency. To address this challenge, several strategies have been proposed:

**Establishment of a Dedicated SME Support Organization:** This involves creating an entity specifically focused on assisting SMEs in navigating the complexities of obtaining financial support. Such an organization could offer guidance, financial literacy training, and direct financial assistance or loan guarantees, making it easier for SMEs to secure the funding they need.

**Supporting the Islamic Microfinance Ecosystem:** By promoting Islamic microfinance, an alternative financial model that complies with Islamic law and offers ethical financing options, SMEs can tap into a new avenue for funding. This system not only broadens the financial landscape for SMEs but also caters to businesses seeking non-conventional funding options that align with their cultural and religious values.

**Leveraging Fintech Solutions:** The rise of financial technology (fintech) offers innovative solutions to traditional financial challenges. Crowdfunding platforms, peer-to-peer lending, and other fintech tools provide SMEs with alternative routes to raise capital. These platforms often have lower barriers to entry compared to traditional banking systems and can offer more flexible terms for SMEs.

By implementing these strategies, the financial accessibility hurdle can be significantly mitigated, enabling SMEs to thrive and continue their vital contribution to the economy. These measures not only support the growth and sustainability of SMEs but also enhance their ability to innovate, compete, and integrate more effectively into global markets.

Market access and the internationalization process are highlighted as another pivotal challenge for SMEs in the OIC Member Countries. The critical role of capacity-building initiatives, undertaken by either government agencies or civil society organizations, is underscored in assisting SMEs to overcome barriers to market access. These programs are designed to equip SMEs with the necessary skills, knowledge, and networks to successfully enter and compete in the global marketplace. Furthermore, the contribution of international organizations in supporting SME internationalization efforts is recognized, with a notable example being the recent initiative of the COMCEC.

This initiative stands out for its comprehensive approach to foster SME growth in OIC Member Countries by providing access to new markets, facilitating knowledge exchange, and encouraging the adoption of best practices. By offering such support, the COMCEC SME Program significantly amplifies the potential for SMEs in OIC countries that thrive in a competitive international environment.

Technological advancements offer significant opportunities for businesses but require substantial investment in technology and skills. This challenge is particularly acute for SMEs due to their limited financial resources, making careful investment critical. The risk of substantial financial loss is higher for these smaller businesses, emphasizing the need for a cautious approach to adopting new technologies. Ensuring a company can handle and adapt to these changes without compromising financial stability is crucial, despite the temptation to innovate.

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## Sukuk: A Resilient Instrument Against COVID-19 Pandemic

**M. Kabir HASSAN<sup>1</sup>**

### 1. Introduction

Sukuk (singular *Sakk*) are financial instruments that establish claims on an asset and/or cash flows associated with that asset. Often, Sukuk are referred to as the Islamic alternative to conventional bonds. The conventional bond is a long-term debt obligation. Therefore, the Sukuk and bonds cannot be directly compared. In fact, Sukuk are hybrid financial assets that combine attributes of both equity and debt financial instruments. Sukuk certificates represent an equity component due to their claim of ownership of an asset and symbolize a debt instrument due to a fixed periodic payment to the holders of the Sukuk as a return.

Sukuk are defined by AAOIFI (2015) in their Financial Accounting Standards 34 as “the certificates of equal value representing undivided shares in the ownership of tangible assets, usufructs, and services or (in the ownership of) the assets of particular projects of special investment activity” (p. 7). The definition emphasizes several important aspects that differentiate Sukuk from conventional bonds. Of particular interest are the asset-backed and asset-based Sukuk that see changes in their value based on the changes in the value of the underlying asset. However, conventional bonds are generally not asset-based. Therefore, buying and selling stakes in a Sukuk correspond to partaking in the underlying asset, whereas the same in a conventional bond is the trading of debt. As a result, bond investment has become an important financial and social tool for investors, regulators, and borrowers. Tangibility (asset-connectedness) of the Sukuk contracts offers further explanations for its resilience during financial crises and as a significant recovery tool in the post-crisis periods. Most importantly, however, the underlying assets in Sukuk contracts are Shariah-compliant. As a result, the Sukuk industry has become a significant non-banking investment and borrowing cornerstone in many countries.

The objectives of this study are three folds: *First*, to discuss the social impact Sukuk, their role in the recovery in the post-COVID-19, and their influence on firms and economies. *Second*, to explain the regulatory, supervisory, operational or prudential issues affecting the social investment involving social impact Sukuk. *Third*, to search for strategies to leverage on the potentials of the social impact Sukuk as the Muslim world is struggling with recovery from COVID-19 and other recent crises, such as the rise of general price levels and Ukraine-Russia conflict.

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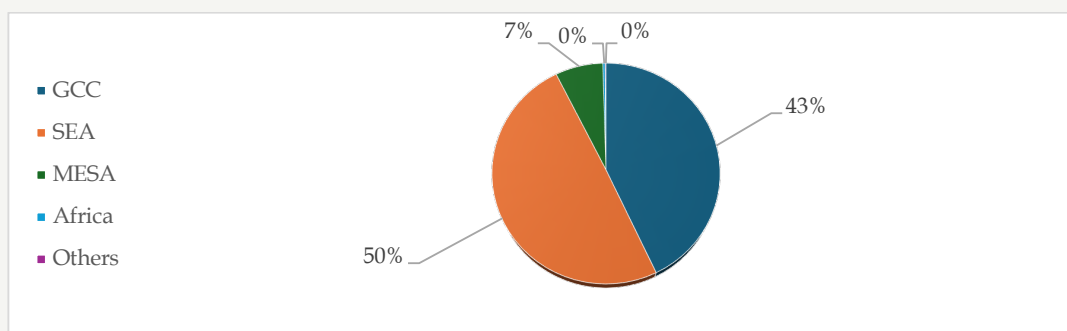
## 2. Demographics, growth, and markets

Sukuk have a global market, spreading beyond its religious origin, from the Muslim majority to minority countries, as global investors and borrowers see the benefits of Sukuk (Guvareva et al., 2024; Rabbani et al., 2023; Billah et al., 2023; Ledhem, 2022). However, due to several unique attributes of markets, assets, and time of issuance, the benefits of Sukuk contracts are being questioned for their lack of connection to stability, and ethical and Shariah requirements (Ang, 2013; Jatmico et al., 2023). A stable and consistent Sukuk market is an important trust indicator that has an impact on other allied Islamic finance marketplaces, such as Islamic Banks and Takaful (Aziz et al., 2021; Le et al., 2022). In this study, demographics, growth, and market concentration of the Sukuk will be investigated.

Syrian traders in the Seventh Century AD used Sukuk-like contracts to establish financial claims on traded goods. Since the objective of Sukuk is to provide an Islamic alternative to conventional long-term debt borrowings, countries with better existing capital market infrastructure and a thriving Islamic corporate finance sector should realize growth in Sukuk market. Aside from corporate borrowing, Sukuk have been a credible source of financing for multilateral development agencies and governments (Sovereign Sukuk).

Islamic Financial Services Board (IFSB, 2023) reported in its yearly Islamic financial services stability report that the Sukuk outstanding grew by around 7% in 2022 (12.5% in 2021), which was negatively affected by unstable global economic and geopolitical outlooks and a limited sovereign issuance (p. 6). Sukuk issuance, however, saw an increase of only 2.3% in 2022 (p. 7). Figure 1 shows the regional distribution of Sukuk outstanding in 2022. Total Sukuk outstanding contributes nearly 26% to the global Islamic financial ecosystem. Of the total \$829.7 billion in outstanding Sukuk, South-East Asia (~50%) countries contributed to the largest proportion of global Sukuk outstanding, followed by 43% from the Gulf Cooperation Council (GCC) region.

**Figure 1: Geographic distribution of Sukuk outstanding in 2022**

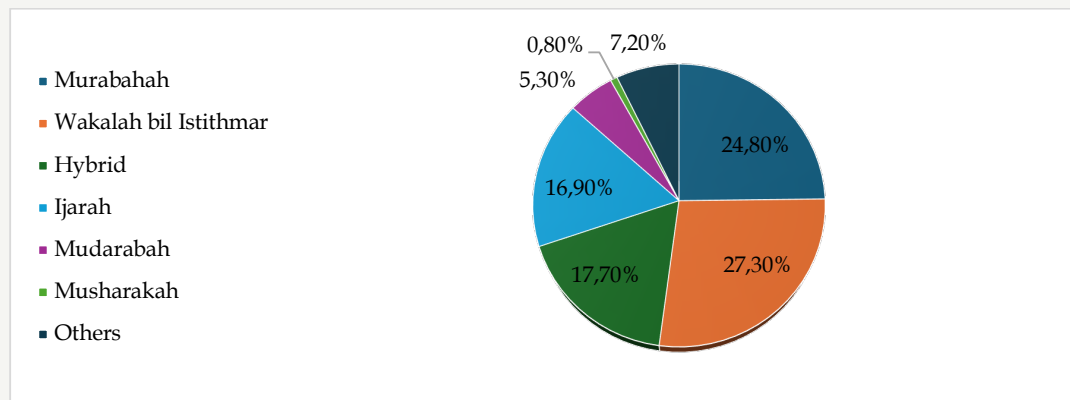


**Source:** IFSB (2023). Countries from the GCC, Southeast Asian (SEA), Middle East and South Asian (MESA), Africa, and other regions are involved in this study.

Nearly 93% of the global Sukuk outstanding is contributed by countries from the GCC and SEA regions. Despite slow year-on-year growth in 2022, the global Sukuk market has experienced a sizable boost. Sovereign Sukuk issuance (50%) contributed more than the issuance by corporations (42%) and multilateral organizations (8%). This trend indicates that during crises like COVID-19 or rising living costs that negatively impacted the sovereign budget capacity, governments took to the Sukuk market as a stable alternative to other long-term options. While Saudi Arabia issued more sovereign Sukuk (31.2%) than other countries, Malaysian corporations took advantage of the Sukuk market, issuing around 47.2% of the corporate Sukuk market in 2022. Therefore, the Sukuk markets are dominated by issuances using the Malaysian Ringgit (33.4%), the United States Dollar (21.9%), and the Saudi Arabian Riyal (20%). Of note, around 78% of the Sukuk issued in 2022 was denominated in local currency.

IFSB (2023) also reported a significant rise in the sustainability-connected Sukuks; green bonds contributed the largest (68%) of the \$8.4 billion sustainability Sukuk in 2022. Figure 2 shows the Sukuk outstanding by type of contract. Sukuk using a *Wakalah bil Istithmar* contract, which is a fee-based agency contract for an agency to use the fund in Shariah-compliant investment, topped the list by type of contract (27.80%), followed by the other globally popular pricing method, *Murabahah*, at 24.80%. It is not surprising that only about 6.10% of the total Sukuk in 2022 utilized the two profit-and-loss sharing based contracts, *Mudarabah* (5.30%) and *Musharakah* (0.80%). Ashraf et al. (2021) found a rank or preference for contracts while issuing Sukuk. For instance, *Murabahah* Sukuk is strongly connected to issuances involving higher government ownership, and board ethnicity is connected to issues involving *Musharakah* Sukuk.

**Figure 2: Sukuk by Contracts (% in 2022)**



**Source:** IFSB (2023).

In short, as the Sukuk market continues to expand, there are several important factors that need to be considered. *First*, there is a rising demand for sovereign Sukuk because of the overall stability of the Sukuk industry and the increasing interest from global investors who are seeking more Sukuk. The financial sector is increasingly issuing a larger share of global Sukuk. However, the utilization of Sukuk by non-financial corporations for industrial production purposes remains limited in scale. This smaller contribution carries forward a detrimental impact on the availability and cost of Shariah-compliant financing for non-financial industrial activities.

*Second*, issuers are becoming more intrigued by the overall stability of the Sukuk market, despite the impact of financial and economic crises on the demand for new instruments. Investors also discovered that Sukuk instruments were beneficial for their portfolios (Gubareva et al., 2024; Rabbani et al., 2023), potentially adding Sukuk to diversify portfolio risk. With the increasing influence of Islamic presence in the capital markets of Muslim-majority countries in the GCC and SEA regions, it is anticipated that there will be a significant growth in Sukuk issuance in the upcoming years. It is anticipated that there will be a greater allocation of funds towards long-term infrastructure and industrial investments, rather than focusing on short-term monetary and working capital needs.

Furthermore, there is a growing apprehension regarding the societal impact of the Sukuk, considering both its compliance with Shariah principles and its socio-economic implications. According to a study by Jatmiko et al. (2023), there may be a correlation between the development of Sukuk and an increase in inequality. Recognizing the significance of public trust in fostering the progress and longevity of Islamic financial markets (Aziz et al., 2021), it becomes crucial to comprehend the expansion of Sukuk instruments in facilitating social development. In addition to the points mentioned earlier, this study highlights the importance of Sukuk instruments in promoting social development. An interesting aspect of this discussion is to emphasize the potential of Sukuk instruments in assisting during the aftermath of crises such as COVID-19 and any future similar crises.

### 3. Social economic impact of the COVID-19 pandemic and Sukuk

The recent economic crises have several unique starting points, leading to an economic crisis having similar attributes. For instances, the global financial crisis of 2007-08 started as a real estate bubble, leading to a crash in global financial markets and a mammoth global economic crisis that cost 30 million jobs (Hippler III et al., 2019). The pandemic – the COVID-19 – started as a health crisis but eventually morphed into a global shutdown and meltdown of economies.

Studies highlighting the importance of COVID-19 on Sukuk markets have two limitations: first, they are extremely limited, and second, they highlight Sukuk as a diversifier of portfolio risk. Gubareva et al. (2024) found that despite having differences in credit spread and bid-ask spread, COVID-19 did not profoundly affect the creditworthiness of the Sukuk investments. This economic attractiveness of the Sukuk investment was preserved due to diversification benefits offered by these securities where Sukuk were considered as essential diversification channels during the COVID-19 pandemic (Le et al., 2022). Billah et al., (2024) found that the green Sukuk acted as risk hedger for Shariah-compliant equity, green Islamic equity, and general Sukuk. Also, the risk hedger attributes were found to be consistent during the COVID-19 pandemic period and the Russia-Ukraine conflict.

## 3.1 COVID-19 and Economic Indicators in the OIC Member Countries

COVID-19 pandemic impacted gross domestic products (GDP), employment rate, and merchandize trade. Tables 1 through 3 show annual GDP growth rate. World average GDP growth rate dropped significantly to negative 2.93% in 2020, amidst COVID-19, following a recovery in 2021 (6.26%) only to observe a decline again in 2022 and 2023. There are extreme outliers in GDP growth rate during the six years as shown in Table 1, primarily recorded in Maldives, Libya, and Guyana. Median growth rates also exhibit a decline of production opportunities in the OIC countries. It is, however, a good indication that the median average of GDP growth rates is relatively higher in OIC countries when compared to world average. Lowest growth rate was (-) 58.32%, recorded in 2020 in OIC countries.

**Table 1: Annual GDP growth rate – world versus the OIC Member Countries**

|        | 2018  | 2019  | 2020   | 2021   | 2022  | 2023   |
|--------|-------|-------|--------|--------|-------|--------|
| World  | 3.29  | 2.64  | -2.93  | 6.26   | 3.09  | 2.72   |
| Max    | 8.67  | 7.88  | 43.48  | 153.49 | 63.44 | 33.02  |
| Min    | -2.68 | -6.91 | -58.32 | -20.74 | -6.24 | -12.05 |
| Mean   | 3.68  | 3.22  | -2.68  | 7.05   | 5.54  | 3.58   |
| Median | 3.76  | 3.75  | -1.44  | 4.00   | 4.36  | 3.68   |

**Source:** World Bank Development Indicators. Max, Min, Mean, and Median are maximum, minimum, average, and median average values for OIC countries.

**Table 2: Merchandize export as a percentage of GDP – World versus the OIC Member Countries**

|        | 2018   | 2019   | 2020   | 2021   | 2022   | 2023   |
|--------|--------|--------|--------|--------|--------|--------|
| World  | 45.60  | 43.82  | 41.73  | 46.33  | 50.30  | 45.79  |
| Max    | 244.55 | 263.33 | 178.83 | 266.32 | 243.01 | 235.82 |
| Min    | 17.97  | 22.95  | 16.51  | 22.40  | 25.39  | 10.87  |
| Mean   | 59.98  | 60.14  | 57.47  | 67.10  | 71.69  | 67.59  |
| Median | 52.27  | 52.38  | 53.41  | 57.76  | 64.36  | 57.83  |

**Source:** World Bank Development Indicators. Max, Min, Mean, and Median are maximum, minimum, average, and median average values for OIC countries.

Table 2 shows comparison of merchandize export as a percentage of GDP for the world average and OIC countries. World average of merchandize export has been profoundly uncertain since the beginning of the COVID-19. Median export in OIC countries recorded similar variability in the last six years. OIC average of merchandize trade is higher than the world average.



While the merchandize, trade is affected by the pandemic, global trade is lower in recent years, particularly from 2022, due to Russia-Ukraine conflict. Due to the recency of the issue, there are limited evidence of Russia-Ukraine conflict on the economies of OIC countries. Salami et al. (2024) investigated interconnection among Turkish markets (real estate, gold, foreign exchange, and stock). Their study reported a long-term co-integrating relationship among these markets. The impact of the conflict on the global market has been channeled through the energy and commodities markets.

**Table 3: Unemployment rate (as % of total labor force – national estimate) – World versus the OIC Member Countries**

|        | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  |
|--------|-------|-------|-------|-------|-------|-------|
| World  | 5.96  | 5.86  | 6.67  | 6.16  | n/a   | n/a   |
| Max    | 26.26 | 25.34 | 25.90 | 26.39 | 24.42 | 15.11 |
| Min    | 0.11  | 0.10  | 0.14  | 0.14  | 0.13  | 4.89  |
| Mean   | 7.33  | 7.53  | 8.02  | 7.77  | 6.48  | 8.24  |
| Median | 4.77  | 5.01  | 6.27  | 5.86  | 5.19  | 6.48  |

**Source:** World Bank Development Indicators. Max, Min, Mean, and Median are maximum, minimum, average, and median average values for OIC countries.

Table 3 displays the unemployment rate for the months before, during, and after the COVID-19 pandemic. The global average unemployment rates saw an upward trend during the COVID-19 pandemic, rising from 5.86% in 2019 to 6.67% in 2020. The median unemployment rates for the nations in the Organization of Islamic Cooperation (OIC) increased from 5.01% in 2019 to 6.48% in 2023. Although worldwide average unemployment rates exceeded those of the OIC region, the pandemic significantly affected the unemployment rates in OIC countries, reaching 26.39% in 2021. These metrics demonstrate that the OIC Member Countries had a below-average performance throughout the pandemic, which ultimately contributed to the onset of the Russian-Ukraine conflict in February 2022.

Certain industries saw more severe impacts from the pandemic compared to others. The healthcare facilities, associated industries, and small and medium-sized enterprises (SMEs) that depend on the healthcare sectors have seen a significant adverse effect because of the complete breakdown of the system (Alandijani et al., 2020). The global closure resulted in unemployment, decreased income, and diminished confidence in policies aimed toward economic recovery. The global trade volume experienced a significant decline, resulting in a cascade of effects on the macroeconomic and market systems. The initial phase of recovery between late 2021 and early 2022 significantly depended on immunization programs, particularly accessible to financially and politically affluent nations. The survey done by the World Health Organization (WHO, 2020) also revealed the inability of several OIC Member Countries to effectively manage losses and prepare for recovery.

## 4. Social Impact, Islamic Finance and Social Impact Sukuk (SIS)

### 4.1 Socio Economic Support in Islam

Islam offers complete social, spiritual, behavioral, and economic codes that are derived from the Holy Quran and the Sunnah of the Prophet Mohammad, *peace be upon him*. There are several economic instruments prescribed in Islam that help promote social economic development. The biggest of this system is the profit and loss sharing instruments, such as the *Mudarabah* and *Musharakah* contracts. These contracts promote entrepreneurship, equality, and fairness that connect deficit and surplus units using an Islamic model based on *adl* and *ihsaan* (Yaya et al., 2021). The second instrument is Zakah and charity that are collected and distributed as claims of the poor people on the wealth built up by the rich people. Zakat, charitable donations and benevolent loans (e.g., *Qardul Hasan*) have significant influence in social development, social justice, and lifting the bottom 40% above poverty line (Rashid et al., 2017).

The most cited differentiator between the Islamic and conventional financial system is the prohibition of interest rate in financing and investing decisions. Charging of interest is a clear injustice to the poor; rich makes more money simply by cycling money in conventional system compounded by the interest rate it offers. Similarly, Islamic financial institutions cannot follow interest rate or benchmark profit rate based on the rate from the conventional markets and indices (Saeed et al., 2023). To avoid interest rate benchmarking, participatory and PLS-based instruments are employed in Islamic financial system. The bases for social impact in Islamic finance is community welfare, provision of socio-economic justice and equality of wealth and income. Islam strongly promotes an integration of profit and principles, leading to a higher expectation of ethical operation from the Islamic institutions that takes care of internal and external stakeholders (Rashid et al., 2013). A higher level of ethical practices has been possible because of multi-layer governance mechanisms using central, internal and external auditors and supervisory boards that keep monitoring and screening activities and performance of Islamic financial institutions.

### 4.2 Social Impact Sukuk

Sukuk have Arabic basis that literally translate to ‘certificates’, representing financial security. The sole distinction between Sukuk and conventional bond is the adherence to the strict norms and restrictions set by the Shariah (Oseni & Hassan, 2014). Sukuk have the potential to become the most powerful Islamic financial instrument and have a significant impact on the expansion and development of the Islamic finance industry, fulfilling the aspirations of the core Islamic practices (Usmani, 2007).

The COVID-19 pandemic has led to a significant increase in the demand for Islamic social finance services. This is mostly because of the ethical and human nature of Islamic financial services (Rabbani et al., 2020). Islamic social finance encompasses specific financial services such as *Zakat*, *Qardul Hasan*, *Awqaf*, *Sadaqa*, and social impact Sukuk. These services are designed to promote inclusive growth and aid vulnerable and deprived segments of society (Hassan, 2017; Uddin & Mohiuddin, 2020, IFSB, 2023).

Social impact Sukuk (SIS) can be utilized for socially responsible investment initiatives, including educational programs, poverty alleviation and nutrition programs, vaccination campaigns, renewable energy projects, housing initiatives, and support for the disadvantaged affected by war, pandemics, emergencies, and similar situations. The aim is to encourage socially responsible investors to actively participate in activities that promote social welfare (Mohamed et al., 2017), investing in large projects that are often difficult from traditional non-Sukuk sources. The SIS can be issued equally by corporations and governments, making a global instrument (Hanefah et al., 2013). During COVID-19, and in similar crisis in the future, SIS becomes an important instrument since it helps to finance large infrastructure budget needed to finance the cost (Nabi et al., 2016). An issue with traditional bonds is the inequitable and unjust allocation of wealth among the stakeholders. The Sukuk corrects this issue by ensuring an equitable and just distribution of wealth. Profits are allocated to investors based on the real profits generated by the Islamic Financial Institutions (IFIs) (Ahmed et al., 2018; Paltrinieri et al., 2020). Sukuk offers several advantages to the parties involved. For the creators, it offers an extra funding source at a lower expense, access to the capital market, tax benefits, and decreased risks. For the investors, it offers a secure investment option with stable income, a suitable balance between risk and reward, improved liquidity, and a fair and equitable arrangement for profit distribution (Hassan et al., 2019; Oseni & Hassan, 2014).

### 4.3 Initiatives during COVID-19

The global phenomenon of sustainable bonds has surged to over US\$ 100 Billion in the second quarter of 2020. The COVID-19 pandemic has led to increased popularity and acceptability of socially responsible investing, as seen by the positive correlation between the pandemic uncertainty index and socially responsible investment (Zhu et al., 2021). After successfully issuing its first green Sukuk valued at EUR1 billion in 2019, the IsDB has identified a pool of suitable assets worth over USD 6 billion for green and social purposes. The IsDB issued its first-ever AAA-rated sustainability Sukuk of USD1.5 billion following the Sustainable Finance Framework.

The Islamic Development Bank (IsDB), International Islamic Financial Market (IIFM), and Vaccine Alliance (GAVI) have initiated several programs to offer financial and other forms of aid to Muslim nations impacted by COVID-19 (Shaharuddin, 2020). The World Bank has previously implemented a treasury program called the International Finance Facility for Immunization (IFFIm) to enhance health infrastructure by issuing Sukuk. IFFIm issued Sukuk and raised 500 million USD to enhance the children vaccination program in the world's most impoverished nations. The investment with a focus on social responsibility is referred to as the "Vaccine Sukuk" (Hafsa & Oumaima, 2021). A comparable endeavor may be undertaken with the assistance of international institutions, such as the World Bank, IsDB, IIFM, and GAVI.

The forward lease Sukuk is another highly active and dynamic financial instrument in the Islamic capital market. It has gained recognition as a significant funding source for infrastructure projects that contribute to social development (Lahsasna et al., 2018). The concept of the social Sukuk is to generate funds from assets that do not yet exist at the time of the Sukuk issue.

## 4.4 Social Investment Indicatives by Countries

Reported in Financial Stability Report of the International Financial Services Boards, countries, such as Malaysia, Indonesia, and Saudi Arabia, have undertaken several projects to support social investment initiatives, particularly during COVID-19.

One of the only nations to specifically use Islamic social financing to combat COVID-19 is Malaysia. On March 27, 2020, Malaysia issued the Prihatin Rakyat Economic Stimulus Package 2020 to safeguard rakyat (people), assist companies, and improve the economy in reaction to the pandemic. The stimulus package was RM 250 billion, with RM 100 billion going to assisting enterprises. In September 2020, the government released Sukuk Prihatin to generate RM 500 million for the National Economy Recovery Plan. Retail and institutional investors can waive part or all the principal amount at maturity with the tax-exempt Sukuk, which has a two-year tenor and 2% yield. The RM 666 million oversubscription was commendable too.

The Indonesian government issued CWLS SWR001 to fund COVID-19 recovery. Buyers of CWLS give funds, either temporarily or permanently, to public initiatives like markets, hospitals, schools, etc. Social programmes including education, health, and MSMEs would benefit from these investments. The *wakala*-based Sukuk SWR001, priced at IDR 1 million (USD 68) per unit, yielded a 5.5% annual return over two years. The October–November 2020 campaign generated IDR 14.91 billion (USD 1.07 million) from 1,041 contributors 145. Temporary waqf returns contributed funds at maturity, whereas permanent waqf reuses the capital for public initiatives.

Numerous Saudi enterprises and financial organizations donated SAR 370 million to the Health Endowment Fund (HEF) following COVID-19. The HEF provides pandemic-related health services after receiving over SAR 1 billion in donations. The Saudi Ministry of Human Resources and Social Development gave SAR 50 million and the General Authority of Awqaf SAR 100 million to a SAR 500 million Community Fund. Other endowments and organizations contributed SAR 50 million. The charity funds provided subsidies and grants to persons who lost income or job owing to lockdowns and curfews.



## **5. Challenges and the Way Forward**

There are five major challenges impeding the progress of social investment using Sukuk and other instruments, particularly in Islamic economies. These are related to legislative, tax framework, standardization of financial reporting, development on socially responsible Sukuk instruments, and harmonizing the role of the stakeholders, such as the investors, financial institutions, and regulatory bodies.

### **5.1 Legal Challenges**

The contract of social Sukuk, like to other Islamic financial instruments, is primarily governed by the principles of trust and beneficial interest. The contract's substance and legality are crucial since they prioritize the interests of the Sukuk investors above the associated Sukuk assets and cash flows. Legally, the common law acknowledges the existence of trust and beneficial interest, but the civil law does not. To secure the financial viability of the social Sukuk issuance, it is crucial for nations that embrace civil law to acknowledge trust and beneficial interest as part of their legal system. Countries such as Türkiye have already adopted the practice of recognizing trust certificates for the successful issue of Sukuk.

### **5.2 Tax Framework**

The process of issuing Sukuk is intricate compared to issuing conventional bonds or other fixed interest-bearing instruments due to the involvement of repeated asset transfers from Special Purpose Vehicles (SPVs) to companies seeking funds. It is crucial to consider the tax problem from the standpoint of social Sukuk issuers. Excessive tax burden might prevent social Sukuk from being a reliable funding source for vital infrastructure projects. It is important to treat the revenue from social Sukuk as equivalent to the interest earned from conventional bonds for tax purposes. Therefore, it is required to make appropriate legislative amendments in this matter. Developing a strong legal and tax framework is becoming more and more crucial as a fundamental component of the Islamic financial ecosystem.

### **5.3 Standardization of the Financial Reporting**

The Islamic Financial Services Board (IFSB) provides widely adopted prudential standards, while the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) sets the financial reporting standards. These standards are highly accepted by Islamic financial institutions worldwide for the purpose of issuing social Sukuk (Naim et al., 2013). Additional efforts are required to align the Islamic financial institutions. It is necessary to establish a worldwide regulatory agency, such as IFSB and AAOIFI that enforces uniform standards for all organizations issuing Sukuk, regardless of the kind, nature, or geographical location of the Sukuk issuance.

## **5.4 Development of Social Sukuk Instruments**

The COVID-19 epidemic has compelled several entities in the finance industry, including as academic researchers, policymakers, government institutions, investors, and business practitioners, to create and enhance financial instruments that are both sustainable and socially responsible (Hassan et al., 2021; Ibrahim & Ebrahim, 2018). The performance of the corporate sectors, including the quasi-government sector, has been noted as the most reliable indicator for assessing the state of the local Sukuk market. Creating a sovereign benchmark yield curve is crucial for ensuring a consistent and reliable supply of the Sukuk market. Countries like as Saudi Arabia, Bahrain, Malaysia, and the UAE have robust and prosperous sovereign Sukuk issuers, which have effectively ensured a consistent supply in the Sukuk market.

## **5.5 Role of the Stakeholders**

To effectively implement its funding strategies in different market conditions and reduce the risk of refinancing, it is crucial for the government to have active participation from stakeholders such as NBFCs (Non-banking Financial Corporations), Islamic banks, and regulatory bodies like AAOIFI and FSB (Alvi, 2006). Organizations such as Non-Banking Financial Companies (NBFCs) have a crucial role in maintaining the liquidity of both the primary and secondary markets. The intermediation by these entities enhances financing efficiency, mitigating the adverse effects of public debt and facilitating bank lending to the private sector. Providing clear standards for the duties and responsibilities of each participant is a challenging task to enhance efficiency and transparency in the smooth operation of the social Sukuk market.

## 6. Conclusion

Sukuk instruments provide significant opportunities to facilitate recovery from the recent crisis. This study clarifies the Sukuk markets, instruments, and challenges. Sukuks are becoming prominent instruments for fundraising in Southeast Asia, the GCC, South Asia, and the MENA regions. *Wakalah* and *Murabahah* constitute the two principal instruments of issued Sukuk. Sukuk are in high demand due to their stability and the increased need for financing infrastructure and industrial projects. Sukuk gained prominence during COVID-19 as effective instruments for financing health sector investments, including the production and distribution of vaccines, as well as investments necessary for post-COVID recovery. Sukuk are incorporated into portfolios to attain enhanced diversification advantages.

Various social impact Sukuk (SIS) are issued to finance socially beneficial projects in education, healthcare, energy, and poverty alleviation. These socially responsible investments align seamlessly with the increasing demand from a group of investors seeking tangible societal change. Sukuk differ from conventional bonds as they are linked to tangible assets, offering a sense of certainty and social involvement. Green Sukuk and sustainability Sukuk are alternative designations employed by issuers, including the Islamic Development Banks, the World Bank (IFFIm Program), and the governments of Malaysia, Indonesia, and Saudi Arabia, to facilitate social development and pandemic recovery.

Nonetheless, numerous challenges exist in the legal, fiscal (tax advantages), accounting (financial disclosure), and innovation (novel instruments) domains. For example, although Small and Medium Enterprises (SMEs) account for approximately 90% of total enterprise outputs in the Organization of Islamic Cooperation (OIC) region, they remain largely underserved by the Sukuk market (Mohieldin et al., 2011). Sukuk, being asset-backed, serve as effective instruments for financing SME projects. Before the pandemic, SMEs were already encountering difficulties in securing funding. The epidemic has intensified these challenges for SMEs (Akin & Iqbal, 2020). The adaptation of Sukuk instruments to meet the requirements of SMEs would significantly benefit this sector and aid in the recovery of nations from recent crises.

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## The Role of Islamic Social Finance in Socioeconomic Equity and Market Stability

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### Abstract

This article analyzes the structure of Islamic social finance and its crucial function in mitigating socio-economic inequality and promoting ethical conduct in market economies. The modern financial system frequently fails to mitigate the escalation of poverty and inequality, as evidenced by data from Oxfam and other organizations. Islamic finance, grounded on principles of justice, social welfare, and ethical limitations, differs markedly from interest-based finance by integrating social and economic goals into its core activities.

The structure of Islamic finance encompasses profit-driven financial models that promote societal welfare, a charitable sector focused on philanthropy and endowments, and market corrective mechanisms that emphasise ethical norms and mitigate wealth inequality. This study examines five fundamental elements of Islamic social finance: for-profit Islamic finance, Zakah, Awqaf, charitable activities in the third sector, market correction procedures, pre-market wealth distribution methods, and a fiscal structure founded on communal solidarity. Collectively, these elements form a comprehensive system that promotes economic justice, environmental sustainability, and a diminished wealth disparity, so offering an alternative framework to interest-based financial systems.

This study elucidates how the principles of Islamic finance foster socially responsible finance, economic stability, and equitable wealth distribution, thereby providing insights into remedies for modern economic difficulties.

### 1. Introduction

In an era of growing global wealth inequality and financial instability, the spotlight on economic systems has intensified. According to Oxfam's 2023 report presented at the World Economic Forum, the stark contrast between rising poverty rates and the increasing concentration of wealth among the highest earners underscores a serious flaw in the current global financial structure. As reported by OXFAM (2023), the wealthiest 1% of the global population has accumulated \$26 trillion in new wealth since 2020, which is nearly double the amount amassed by the rest of the world combined. This period has also witnessed a simultaneous rise in both extreme wealth and extreme poverty for the first time in 25 years. Additionally, in the UK, it was found that the top 1% of the population holds more wealth than the combined total of 70% of the population (Oxfam, 2022). These inequalities are not just the result of economic mismanagement; they are deeply rooted in systemic biases that favor capital accumulation at the expense of the marginalized segment of the society. The capitalist-driven market economies often prioritize maximizing profits and shareholder value, side-lining the broader social and ethical implications of wealth distribution.

Islamic social finance offers an alternative framework designed to address these pressing issues. Unlike conventional financial systems, which are often divorced from

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ethical considerations, Islamic finance is deeply intertwined with religious principles that emphasize justice, equity, and social responsibility to support the underprivileged. This financial system incorporates mandatory mechanisms, such as zakat (obligatory almsgiving), and voluntary instruments, such as Awqaf (endowments), to promote wealth redistribution and ensure that the needs of the most vulnerable members of society are met. In this way, Islamic finance acts as both a market participant and a social reformer at the same time, encouraging financial growth and fostering community solidarity at the same time.

Islamic finance fundamentally prohibits exploitative practices such as excessive speculation, interest-based transactions (riba), and investments in unethical industries, distinguishing it from secular financial systems. Rather than viewing wealth as a tool to empower individuals, Islamic finance promotes the idea that wealth should be traded and shared for the common good, with special attention to the social and economic upliftment of the poor and marginalized. This article delves into the core principles of Islamic social finance and analyzes its potential to reshape economic systems by integrating social, environmental, and ethical goals into its financial practices. Through this exploration, we aim to provide a comprehensive understanding of how Islamic finance can serve as a socially responsible alternative, addressing modern economic challenges such as poverty, wealth inequality, and market instability.

## 2. For-Profit Islamic Finance and Social Responsibility

For-profit Islamic finance serves as a foundational element within the broader framework of Islamic social finance, effectively challenging the prevalent assumption that Islamic social finance is predominantly charity-driven. In 2023, the global Islamic Financial Services Industry (IFSI) demonstrated consistent year-over-year growth of 4%, resulting in a total asset valuation of USD 3.38 trillion. This growth was characterized by a distribution of assets, with 70.21% attributed to Islamic banking assets, 25.16% to outstanding Sukuk, 3.92% to Islamic funds, and 0.71% to contributions from Islamic insurance (IFSB, 2024).

The principal contracts employed in for-profit Islamic finance encompass a variety of types, including cost-plus profit sales (Murabaha), manufacturing contracts (Istisna'), deferred delivery sales (Salam), leasing agreements (Ijarah), partnership contracts (Sharikah), and profit-sharing contracts (Mudharabah) (AAOIFI, 2017).

For-profit Islamic finance stands on 4 principles which distinguishes it from conventional finance namely asset ownership, realism, moral commitment, environmental and social responsibility.

## 2.1 Asset Ownership and Value Creation

Islamic finance stipulates that financing must involve the ownership of a tangible asset or service that contributes real economic value. This essential requirement for ownership distinguishes Islamic finance from conventional lending models, where interest is frequently charged on borrowed funds without generating any additional value. By concentrating on assets that add value, Islamic finance inherently fosters developmental projects that yield long-term social benefits.

### Earning by Owning: The Foundational Principle

In Islamic finance, the right to earn is fundamentally tied to asset ownership. Profit is justified by possessing an asset that generates increments or added value. Therefore, in order to earn financially, one must own an asset. Without asset ownership, there is no entitlement to financial gain. Moreover, the asset itself must have specific characteristics, as dictated by its intrinsic nature. To produce returns, the asset must generate utility, value, or material wealth. If the asset does not create added value, it is not considered a valid basis for earning (Kahf, 2022).

The principle also emphasizes that profit can only be claimed if the asset itself contributes to generating that added value. Additionally, the asset must not cause harm, as harmful assets are excluded from consideration in Islamic finance.

The legitimacy of earning (halal) depends on two key factors: asset ownership and the nature of the asset itself. For an asset to qualify for generating earnings, it must meet three essential criteria: it must be capable of producing added value, it must be tangible (not fictitious or virtual), and it must be moral. If an asset does not meet these criteria, it is deemed unsuitable for financing. The validity of these characteristics can be evaluated using rational, scientific methods alongside moral considerations (Kahf, 2022).

### Ownership and Risk

Ownership encompasses the inherent risk associated with property rights, which represents a fundamental aspect of entitlement. A property owner is entitled to any increments produced by their asset while simultaneously bearing responsibility for any loss, damage, liability, or depreciation in value. In summary, ownership legitimizes the right to earn within the financial landscape. This concept of ownership encompasses two dimensions: the risks to which the property is exposed and the entitlement to any increments generated by the property. Notably, risk is not the cause of entitlement but rather an essential feature accompanying it (Kahf, 2022).

Unfortunately, contemporary financial instruments allow individuals to generate earnings without asset ownership, utilizing mechanisms such as futures, derivatives, short sales, and contracts for differences. Such practices distort market discipline and can precipitate financial bubbles, as evidenced during the 2008 global financial crisis.

## **2.2 Realism in Islamic Finance**

Realism within Islamic finance pertains to the nature of transactions involved. For instance, when analyzing debt sales, one must consider the transaction's impact on the economy. Such transactions merely alter the identity of the creditor or debtor without modifying the overall quantity of goods and services within the economy, failing to create any increment or utility. Conversely, transactions involving the sale of goods or services inherently generate added value, as the exchange yields greater value to the buyer than what is relinquished. Consequently, any reforms in the existing financial sector should preclude virtual transactions, including options, derivatives, and index trading (Kahf, 2022).

Islamic finance emphasizes that financial assets must derive their legitimacy from real assets rather than fictitious or virtual representations, such as contracts for differences (CFDs), indices, or cryptocurrencies like Bitcoin.

## **2.3 Moral Constraints on Financing**

Moral commitment is a fundamental tenet in Islamic finance, dictating that the assets utilized in financial transactions must not cause harm. This principle prohibits the ownership, purchase, or sale of any harmful or immoral items. Furthermore, contracts must be devoid of misinformation, deception, ambiguity, or any imbalance. Only assets deemed morally acceptable can be financed within the framework of Islamic finance. Investments in sectors considered harmful to individuals or communities, such as alcohol, tobacco, and gambling, are strictly prohibited. This moral constraint functions as a safeguard for society, ensuring that financed goods and services are aligned with the well-being of the community (Kahf, 2022).

Moral commitment is manifested in Islamic finance contracts in two primary ways. The first relates to the characteristics of the assets involved in the contracts. It is a fundamental requirement of Islamic finance that the contracted goods, services, or assets do not inflict harm upon human beings, property, or the environment. The purchase and sale of items deemed harmful are expressly forbidden under Islamic law, with such items lacking recognition as legitimate properties. For example, transactions involving scientifically established harmful substances, such as alcoholic beverages and cigarettes, are not eligible for financing, as they do not constitute legitimate goods. In Islamic finance, the financing of assets that pose risks to individuals and the environment is prohibited, as assets or transactions forbidden by Shari'ah lack any real value and must be avoided (Kahf, 2022).

The second aspect of moral values in contracts pertains to the fundamental structure, terms, and clauses of the contracts themselves. Contracts within Islamic finance should be free from incomplete or false information, deception, suspicion, or ambiguity. There must be coherence between the contract's substance and its form. This indicates that moral commitment should be integral to both the content and structure of the contract. The conditions outlined in the contract must align with the contract itself, preventing any terms or ambiguities that disproportionately advantage one party over the other. A classical example of ambiguity in Islamic law is the sale of an unborn calf within a pregnant cow; such a transaction is rendered void due to uncertainty regarding the calf's viability upon birth (Kahf, 2022).

## 2.4 Double Intermediation in Islamic Finance

The double-intermediation model utilized in Islamic finance serves to not only connect savers and investors but also align suppliers of tangible assets with consumers. This mechanism empowers banking institutions to acquire ownership of an asset prior to its sale to the end-user, thereby introducing layers of transparency and ethical responsibility. By integrating social considerations into profit-driven activities, Islamic finance models pave the way for broader, socially-oriented economic development.

## Environmental and Social Responsibility

Islamic finance is recognized as a unique form of socially responsible investment. It actively supports socially inclusive and environmentally sustainable activities. The moral commitment inherent in Islamic finance conveys an obligation to develop and engage in protective and considerate practices towards all living entities. Specifically, Islamic finance refrains from financing any product or activity deemed harmful. The definition of “harmful” within Islamic finance encompasses a broad spectrum of considerations, including detrimental effects on mental well-being, human health, children, animals, plants, nature, society, and overall peace and prosperity. Any entity classified as harmful is excluded from the operational domain of Islamic finance.

Islamic finance contributes to positive transformations in the environment and society by eschewing harmful practices and offering its services exclusively to beneficial endeavors.

## 3. The Islamic Third Sector

The third sector in Islamic finance, encompassing Zakat, Awqaf (endowments), and general charity, is another dimension of Islamic social finance addresses economic disparities and enhances community welfare through a robust system of redistribution.

### 3.1 Zakat as a Mechanism for Wealth Redistribution

Zakat constitutes a mandatory financial duty, functioning as a direct means of wealth redistribution, ensuring that a portion of each eligible Muslim’s income supports the disadvantaged. Unlike voluntary charitable donations, Zakah is a fundamental component of the Islamic economic system. It is often levied on both income and wealth, so reaching a wider economic base than income taxes alone.

Historically, Zakat has been seen as an efficacious tool for poverty alleviation within Muslim communities. Historical evidence from early Islamic societies indicates the possibility of entirely eradicating “visible” poverty through Zakat. An often referenced declaration of the Prophet (pbuh) asserts: “Indeed, Allah SWT has instituted Zakat as a duty for wealthy Muslims to alleviate poverty.” The destitute cannot suffer from hunger or lack of clothing unless it is provoked by the greed of wealthy Muslims.



Historical records indicate a consistent surplus of Zakat in early Islamic caliphates, contrasting mobilised revenues with distributable quantities, despite efforts to locate destitute recipients, which have often been cited as evidence for this claim. The caliphates of Umar bin al Khattab (13-22H) and Umar bin Abdul Aziz (99-101H) are characterised by a notable deficiency of Zakat recipients, indicating the possibility of eradicating “visible” poverty entirely. The present situation is, nevertheless, somewhat confusing. Zakat and poverty are interconnected. Poverty is more evident in Islamic countries than in other worldwide regions.

The obligation to pay Zakat is a religious duty for people, whereas governmental participation transforms it into a compulsory tax. In contemporary Muslim societies, Zakat is regarded as a discretionary contribution by devout Muslims.

The voluntary nature of modern Zakat may significantly contribute to its extraordinarily low collection levels. Recent research indicates that the actual Zakat collection in Muslim nations is well below its potential. Data on Zakat collection from selected countries indicate that the total Zakat collection varies from a mere 0.01 percent to 0.30 percent of GDP. The potential Zakat collection in Muslim nations, if efficiently mobilised, is anticipated to reach an annual range of 1.8 percent to 4.3 percent of GDP (Ashraf et al., 2021).

Two assessments by IRTI-IDB and WB project the potential global Zakat collection to range from USD 550 billion to USD 600 billion. The latest collection figures from various editions of the IRTI Islamic Social Finance Report indicate that Saudi Arabia collected USD 4 billion, Malaysia USD 600 million, Indonesia USD 270 million, Sudan USD 225 million, India and Pakistan USD 100-150 million each, Islamic Relief Worldwide from affluent Muslims USD 100 million, Singapore USD 20 million, Brunei USD 15 million, and South Africa USD 10 million, totalling approximately USD 5.5 – 6 billion. This constitutes only one percent of the anticipated potential (Ashraf et al., 2021).

Muslims in Russia, Commonwealth of Independent States (CIS), and African nations contribute limited Zakat (Russia: USD 5.9 million; Nigeria: USD 3.3 million). Algeria and Libya in the Maghreb yield around USD 10 million and USD 35 million, respectively, via their official agency. By integrating USD 3-4 billion from additional GCC countries, a plausible global estimate would range from USD 10 to 15 billion. As a result, just 2-3 percent of potential Zakat is being successfully collected (Ashraf et al., 2021).

The considerable gap between the potential and actual Zakat collection highlights the urgent necessity to improve Zakat mobilisation by expanding the reach of Zakat institutions and implementing supplementary initiatives. Comprehending the functions of various stakeholders in Zakat mobilisation is essential, as is recognising strategies for their efficient involvement in the process. The government and non-governmental charitable organisations are the principal actors, while other notable stakeholders encompass Islamic networks, religious scholars (ulama), activists, Zakat professionals (amil Zakat), Islamic banks, microfinance institutions, Zakat payers (muzakki), and Zakat beneficiaries (mustahiq).

A recent study on Indonesia indicates a significant increase in the number of Zakat institutions and the amount of Zakat funds mobilised, owing to enhanced and effective stakeholder contributions. The volume of Zakat funds escalated from USD 7.2 million in 2002 to USD 270 million in 2015, signifying a gain of about 36-fold over this interval, with annual increments occasionally nearing one hundred percent. Efficient rules and regulations enabled this swift expansion, which was accompanied by considerable institutional progress. A study reveals that the Zakat infrastructure, consisting of a network of Zakat institutions, has grown to

include one National Board of Zakat, eighteen national private Zakat institutions, thirty-three provincial boards of Zakat, and more than four hundred city/regency boards of Zakat. Malaysia is distinguished for its effective Zakat mobilisation, with latest data revealing that mobilised Zakat exceeds USD 600 million, signifying a sevenfold growth over the past 12 years and a thirty-sevenfold increase over the past 22 years. A sophisticated infrastructure of financial institutions and business entities has assisted this process as collecting agents for State Islamic Religious Councils (Ashraf et al., 2021).

## 3.2 Awqaf and Social Welfare

Awqaf, or Islamic endowments, are designated funds or assets used to benefit public causes, such as education, healthcare, and community infrastructure. Historically, Awqaf institutions have played an essential role in providing social services, ensuring that resources remain dedicated to public welfare and reducing dependence on fluctuating government budgets. The cumulative nature of Awqaf ensures that societal needs are continually addressed over generations.

Despite the substantial presence of Awqaf assets in every Muslim country, there is a dearth of available statistics. A few estimates undertaken for India and Indonesia (countries with highest and second highest Muslim population) may be indicative of the potential of this institution. A 2006 estimate for India puts valuation of awqāf at USD 24 billion. A 2012 estimate for Indonesia puts the valuation of its awqāf at USD 60 billion. In a few cases, the Waqf assets have been developed with infusion of private profit seeking as well as not-for-profit capital. However, the potential of such vast awqāf properties in the Muslim world remains untapped for a variety of reasons (Ashraf et al., 2021).

## 3.3 Voluntary Charity as an Economic Stabilizer

Charitable giving is highly encouraged in Islam, with specific mention in religious texts of the value it brings to both the giver and the recipient. Voluntary charity supplements Zakah and Awqaf, enabling additional aid during times of crisis and providing a continuous resource for alleviating poverty and supporting marginalized groups.

## 3.4 Islamic Microfinance

Another important component of Islamic social finance is Islamic microfinance, which is distinguished by offering interest-free loans to individuals in need. This practice commonly employs the concept of \*Qard Hasan\*, meaning “benevolent loan.” A notable example is the Akhuwat Foundation in Pakistan, a nonprofit organization that raises funds through waqf and donations to provide microloans to low-income individuals without imposing any interest (Syeda Shehrbano & Haider, 2012).

## **4. Addressing Market Failures through Islamic Finance**

The true role and place of finance are where it helps production and exchange. But within the context of financialization, an incorrect role has been assigned to the finance sector and the finance institutions. This incorrect positioning of finance diverted resources to wealth transfer instead of wealth creation transactions. Transferring wealth from one individual to another is possible, but it does not help in creating an added value or new wealth. Through virtual transactions, finance has been transformed into a gambling type of transactions and activities.

To execute correct financial reforms, we need to go back to the basic function of finance which is a supportive role for the real economy. In other words, we need to re-direct financial and human resources out of speculation and out of the virtual finance environment and out of interest-based debt back into wealth-creating activities. Upon such re-orientation, the financial institutions of the finance sector can then contribute to the process of wealth creation. They can deserve a part of the added wealth generated by their contribution to the efforts undertaken by other contributors in the real market. We need to reposition the finance sector in the whole economy as it should help and support real sector activities. This means we need a finance sector that facilitates channelling funds to the productive sectors instead of attracting funds and other financial and human resources from the productive sectors into speculation and a virtual contract environment.

Finance is naturally a subservient and supporter of the real economy. From this perspective, there is nothing wrong with finance or its earning if it contributes to value-creating and becomes part of the process of production and exchange. This is the correct place of the finance sector in the economy.

Islamic finance is built on simple and plain contracts based on common, pure business transactions consisting of sale, lease, and sharing contracts within the real economic activities, which are valid for all societies. In other words, these contracts are practiced in every society and every legal system. Islamic finance has made these contracts that exist in commercial laws of all societies throughout history, the core and the heart of finance.

Islamic finance incorporates several mechanisms to correct market imbalances, foster socioeconomic justice, and reduce wealth gaps.

### **4.1 The Role of Hisbah in Market Regulation**

The concept of Hisbah, an Islamic ombudsman, regulates market practices to ensure ethical standards are maintained. Appointed to oversee fair market behavior, the Hisbah can address issues of unfair competition, monopolistic practices, and consumer exploitation. This approach contrasts with conventional market regulation by emphasizing both legal and moral accountability.

Macro-prudential measures are aimed at controlling and reducing risks that may arise in the financial system. The aim of implementing these measures is to limit the adverse effects of systemic risk that may arise due to financial problems on the financial system and or on the real economy. The risks that spread the problems in the financial system to the whole economy and bring the entire economy down are called systemic risks. While macro-prudential measures aim to ensure the stability of the financial system, micro-prudential measures aim to protect the financial stability of individuals and companies.

In other words, the macro-prudential policy is trying to prevent financial problems from turning into systemic risks and ultimately shrinking GDP, while micro-prudential measures aim to protect consumers and individual companies. But, in the finance market, the regulatory authority has been failing to check the behavior of individual institutions for a long time. Because there is always a natural time lag between the action of economic units and the action of the regulator. We need a quicker ombudsman mechanism which is a semi-judicial and semi-regulator market body whose role is to detect the defects of the market before it grows. This ombudsman mechanism detects what is happening in the market and individual financial institutions behind their balance sheets. It should be in all financial markets to check products and transactions. It should monitor market activities and give warnings of crises as early signs/trends appear. This institution also provides moral commitment checks (e.g., preventing gharar, deceiving in the contracts, etc.). It weighs the public interests over private interests as well. The Muhtasib (ombudsman) mechanism can take a role in directing both macro and micro-prudential measures (Kahf, 2022).

In this regard, the ombudsman mechanism that we offered can play a crucial role in the financial markets.

## 4.2 Wealth Redistribution and Diffusion Mechanisms

Wealth redistribution through Islamic inheritance laws and Zakah limits the accumulation of wealth by a select few, ensuring that assets are shared among a broader base. Islamic inheritance laws mandate that an individual's wealth be divided among their heirs according to predetermined guidelines, preventing the long-term concentration of wealth in fewer hands.

## 5. Pre-Market Wealth Diffusion and Islamic Inheritance Laws

Islamic inheritance laws prevent the concentration of wealth through the equitable distribution of assets upon death. Unlike conventional practices, where deceased individuals may exercise control over their estate through wills, Islamic law limits such power, encouraging broad wealth diffusion and economic opportunity.

Though Islamic inheritance laws grant different shares to male and female heirs, the distribution system aims to balance familial roles and responsibilities, with men typically tasked with broader financial obligations.

By enforcing compulsory inheritance distribution, Islamic finance discourages the hoarding of wealth. This policy supports capital circulation, stimulates consumption and investment, and enhances economic growth across various social strata.



## 6. Conclusion

Islamic social finance represents a compelling and ethically grounded alternative to conventional financial systems, offering solutions to the long-standing issues of wealth inequality, economic volatility, and market inefficiencies. In a world where economic power is increasingly concentrated among a privileged few, Islamic finance proposes a system that prioritizes the collective well-being of society over individual gain. It challenges the profit-driven models of modern finance by embedding principles of justice, compassion, and equity into its operations, ensuring that financial practices are not merely tools for wealth creation but also instruments for social good.

The integration of religious values into the financial sector is a key differentiator in Islamic finance. It does not view wealth as an end in itself but as a means to achieve social welfare and economic stability. Through instruments like Zakah, Islamic finance mandates the redistribution of wealth, ensuring that the needs of the poor and disadvantaged are addressed. Awqaf, or charitable endowments, further contribute to long-term social investments, supporting essential services such as education, healthcare, and community development. These mechanisms not only alleviate poverty but also create a more inclusive and resilient economic system, capable of withstanding global financial shocks.

Moreover, Islamic finance's emphasis on environmental and social responsibility aligns it with contemporary calls for sustainable finance. As the world faces mounting challenges from climate change, environmental degradation, and socio-economic disparities, the principles of Islamic finance offer a roadmap for creating financial systems that are not only profitable but also sustainable and just. The prohibition of investments in industries that harm individuals or the environment further underscores the system's commitment to ethical finance, ensuring that economic activities align with the broader moral and social goals of society.

In conclusion, the potential of Islamic social finance extends far beyond the Muslim world. Its principles of fairness, wealth redistribution, and ethical investment are universal in their appeal and could provide valuable insights for reforming global financial practices. As conventional financial systems struggle with recurring crises and fail to address growing inequality, Islamic finance offers a model that places human welfare, environmental sustainability, and economic justice at the forefront. By integrating these values into financial practices, Islamic social finance provides not only an alternative but a necessary paradigm shift toward building a more equitable and stable global economy. This shift, grounded in both religious and ethical imperatives, offers hope for a future where finance serves not just the wealthy, but the entirety of society.

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## Building an Enabling Regulatory Environment for Fostering Islamic Finance

*Dr. Abdurrahman YAZICI<sup>1</sup>*

### Introduction & Background

Islamic finance is gaining recognition on a global scale as a moral and sustainable alternative to the conventional finance system. The development of the Islamic financial industry in the global market presents both growth opportunities and challenges that have given rise to significant public policy and regulatory issues in the jurisdictions in which they operate. International organizations, standard-setting bodies, national regulatory authorities & supervisory bodies, policymakers, and academics have initiated an examination of distinctive characteristics of Islamic financial intermediation from their unique perspectives. The growing interest in Islamic finance highlights the need for a robust and resilient regulatory environment that is efficient, competitive, and supportive of its development. Such an environment will ensure that Islamic finance becomes an integral component of the global financial system. As an essential part of the Islamic finance ecosystem, the regulatory environment plays a critical role in the ongoing development of the Islamic financial system, providing the foundation for future sustainable progress and development.

This reflection paper examines the essential components for building an enabling regulatory environment framework for Islamic finance through drawing insights from a range of sources. These include related reports of the Standing Committee for Economic and Commercial Cooperation (COMCEC), standards, guidelines, and working papers of international Islamic financial institutions and standard-setting bodies such as the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) and the Islamic Financial Services Board (IFSB), the International Islamic Financial Market (IIFM), the General Council for Islamic Banks and Financial Institutions (CIBAFI), the International Islamic Rating Agency (IIRA), and relevant studies and wider industry observations. In addition to the introduction and key recommendations / conclusion part the paper consists of two parts: **i.** Key elements of an enabling regulatory environment and **ii.** The role of international Islamic financial institutions and standard-setting bodies.

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## I. Introduction & Background: Understanding the Regulatory Landscape

The regulatory landscape for Islamic finance is complex and multifaceted, requiring a precise balance between adherence to principles of Shariah because of its characteristics peculiar to Islamic finance business<sup>2</sup> and alignment with international conventional financial standards<sup>3</sup>. This approach allows for the consideration of Islamic Finance's distinctive characteristics, its competitiveness and growth potential within the broader financial system and the regulations and guidelines set forth by national-level regulatory and supervisory bodies. Given the unique characteristics of Islamic Financial Institutions (IFIs), specific standards have been developed by dedicated international standard-setting bodies, including the AAOIFI and the IFSB. These organizations have established a comprehensive set of technical standards, guidelines and guidance notes. These institutions also work closely with international conventional standard-setting bodies, including the Basel Committee on Banking Supervision (BCBS)<sup>4</sup>, the International Organization of Securities Commissions (IOSCO)<sup>5</sup>, the International Association of Insurance Supervisors (IAIS)<sup>6</sup> and the International Accounting Standards Board (IASB)<sup>7</sup> to ensure coherence and consistency with their standards.

Islamic finance operates in a diverse range of countries, each with its unique legal, economic, and cultural contexts. Therefore, there are various challenges such as follows: (i) regulatory arbitrage, (ii) limited awareness and understanding, (iii) scarcity of qualified professionals, (iv) inadequate legal frameworks, (v) market development and infrastructure, (vi) regulatory capacity and resources and (vii) technology and innovation (IMF, 2015, p. 16). The harmonization of legal and regulatory frameworks across jurisdictions is one of the challenges. Accordingly, the legal and regulatory practice governing IFIs varies from one jurisdiction to another. Moreover, a one-size-fits-all approach is impractical for the legal and regulatory framework of IFIs. Instead, there is also a need for a customized local-level regulatory framework that caters to the specific needs and circumstances of respective countries while maintaining a degree of standardization to facilitate cross-border transactions.

2 For example: AAOIFI Shariah, Ethic, Governance, Accounting and Audit Standards, IFSB Standards, IIFM Standards.

3 For example: International Financial Reporting Standards (IFRS), Basel Principles, OECD Principles of Corporate Governance, Standards of the International Association of Insurance Supervisors (IAIS).

4 Please see Basel Committee Groups: <https://www.bis.org/bcbs/mesc.htm>

5 Please see IFSB-IOSCO collaboration: <https://www.sc.com.my/resources/media/media-release/ifsb-iosco-sc-collaborate-on-disclosure-requirements-for-islamic-capital-market-products>

6 Please see the joint report prepared by IFSB-IAIS: [https://www.iaisweb.org/uploads/2022/01/issues\\_in\\_regulation\\_and\\_supervision\\_of\\_Takaful.pdf.pdf](https://www.iaisweb.org/uploads/2022/01/issues_in_regulation_and_supervision_of_Takaful.pdf.pdf)

7 Please see for International Financial Reporting Standards (IFRS) Islamic Finance Consultative Group: <https://www.ifrs.org/news-and-events/calendar/2024/may/islamic-finance-consultative-group/>



## I. Key Elements of an Enabling Regulatory Environment

### *Effective Shariah governance:*

One of the most critical elements that regulate economic activities and financial transactions within the Islamic finance system is Shariah governance (SG). This governance is essential for asserting the integrity and credibility of Islamic finance and is a key component in building stakeholder confidence regarding compliance with Shariah principles. As the Islamic finance sector rapidly grows and the duties of key Corporate/Shariah governance bodies become more complex, it is vital to have a strong Shariah governance mechanism in place. Effective Shariah governance requires creating related structures, controls, and processes to ensure that Shariah principles and requirements are met in all contractual, procedural, and operational aspects of an IFI, considering the perspectives of various stakeholders (CIBAFI/World Bank Group, 2017). This SG mechanism aims to strengthen the roles of the Board of Directors (BOD), management, Shariah supervisory boards (SSBs), and other related institutional entities in ensuring Shariah compliance. Comprehensive adherence to Shariah principles serves to enhance public confidence and the credibility of financial markets of Islamic financial transactions and services. A strong SG regime is essential not only for Islamic banks but for all IFIs offering a wide range of products to the public. Best practices in national and global Shariah governance frameworks vary across different SG regimes, reflecting diverse approaches to achieving effective Shariah compliance (COMCEC, 2020). While an Islamic bank's governance system comprises multiple organs and processes, Shariah supervision plays a pivotal role in ensuring Shariah compliance. Standard-setting bodies propose various aspects that SG systems should have at the level of IFIs. These include: **i.** institutional and organizational arrangements and procedures, **ii.** issuance of Shariah pronouncements, **iii.** effective and independent Shariah supervision through ensuring day-to-day compliance, **iv.** internal Shariah compliance review and audit, **v.** annual Shariah compliance audit to ensure that internal Shariah compliance review has been properly carried out, **vi.** dissemination of their expert opinions and other decisions to the stakeholders, and **vii.** fulfilling all business and operations contracts in IFIs (AAOIFI-IFSB, 2022; IFSB, 2009, 2019).

To undertake these functions, the IFSB (2015) identifies different Shariah organs such as in-house Shariah compliance unit/department, internal Shariah review/audit unit, and a Shariah Supervisory Board to mitigate Shariah compliance risks and guarantee that IFIs conduct business according to operational Shariah principles and licensing requirements. Accordingly, regulatory bodies of respective countries may also provide SG frameworks and guidelines. As highlighted by COMCEC (2022) Report also, establishing a centralized Shariah governance framework in respective countries will ensure the compliance of the IFIs with standards on Shariah products, dispute resolution, and reporting.

## ***A supportive legal and institutional framework:***

Through establishing legal and institutional framework in OIC Member Countries, Islamic financial sectors' development, economic stability will be enhanced and adherence to Islamic principles will be increased. Actually, five components related to supporting legal and institutional frameworks are connected to each other which are: legal framework, institutional framework, regulatory framework, product development, and international collaboration (Grassa, R., 2015). In terms of institutional framework, there should be dedicated regulatory bodies with the expertise to oversee Islamic finance operations, services and products. These entities should collaborate closely with traditional financial regulators to create a comprehensive regulatory environment. Furthermore, legislation of Islamic finance should cover banking, takaful and capital markets. Required legal reforms may be necessary to accommodate the unique aspects of Islamic finance, such as the prohibition of some transactions (i.e. riba, gharar) and having the principles of risk-sharing. Regulation that overlooks the unique attributes of Islamic finance could impede the growth of IFIs and strip them of their comparative advantage over conventional finance institutions. Authorities may consider the distinct ways IFIs manage market imperfections to develop appropriate regulations for them (Al-Jarhi, Mabid, 2014, 2018). Additionally, regulatory frameworks also cover various aspects such as prudential regulations tailored to IFIs, including capital adequacy, liquidity requirements and risk management guidelines, supervisory framework and taxation policies (Zulkhibri, M. et al., 2016).

## ***Risk Management and Capital Adequacy:***

IFIs face unique risks due to their adherence to profit-and-loss sharing principles. The essential feature of IFIs' activities is the requirement to comply with Shariah principles especially the prohibitions of generating profits without bearing any risks. Adopting risk management practices tailored to these unique risks is essential. Moreover, the Basel III capital adequacy framework<sup>8</sup> should be adapted to accommodate the specificities of Islamic finance, ensuring that IFIs remain resilient and solvent. This includes developing guidelines for liquidity management, stress testing, and crisis management specific to Islamic finance. In addition to implementing related internationally accepted Islamic Finance guiding principles, each financial oversight supervisory authority has a responsibility to establish an appropriate enabling environment to control and implement effectively (IFSB, 2005). Moreover, regularly updating the standards of standard-setter bodies to meet industry demands would benefit all stakeholders. This can be accomplished by establishing a dedicated platform (such as meetings, periodicals, etc.) for discussing relevant ongoing or possible issues.

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<sup>8</sup> The Basel Committee on Banking Supervision (BCBS) has published documents setting out sound practices and principles pertaining to credit, market, liquidity and operational risks of financial institutions. Please see for details: <https://www.bis.org/bcbs/basel3.htm>

***Market Development and Infrastructure:***

The development of a vibrant Islamic finance market requires adequate infrastructure, including liquidity management tools, rating agencies, and secondary markets for Islamic financial instruments. Government support in developing these infrastructures and encouraging private-sector participation is crucial. Additionally, the establishment of Islamic financial markets and platforms can facilitate the growth of the industry and provide more investment opportunities. Key entities like the IIFM, Islamic International Rating Agency (IIRA), and Liquidity Management Center (LMC) play significant roles in these efforts (Buck, Eldred, 2011). These platforms enhance the issuance and trading of Islamic financial instruments, thereby increasing investment opportunities and promoting a more dynamic and interconnected Islamic finance ecosystem. Consequently, the collaborative efforts of government and private sector entities are fundamental to fully realizing the potential of the Islamic finance market (World Bank Group, 2015).

**II. Roles of International Islamic Financial Institutions and Standard-Setting Bodies**

International IFIs and standard setter bodies play pivotal roles in shaping the regulatory landscape for Islamic finance. These organizations are essential in establishing standardized guidelines and practices that ensure consistency and transparency in the industry across jurisdictions. By developing international standards, they address key challenges such as varying interpretations of Shariah principles, difficulties in implementation, differences in regulatory frameworks across jurisdictions, and the need for robust risk management practices.

The **AAOIFI** was initially established to develop accounting standards for IFIs. However, over time, its role expanded to include setting various types of standards for Shariah compliance, reflecting the broader needs of the industry. Today AAOIFI develops a wide range of standards in accounting, auditing, governance, ethics, and Shariah for IFIs. Its standards are widely recognized and adopted globally, providing a unified framework that enhances transparency and comparability in Islamic finance. AAOIFI standards are adopted by over 40 regulatory jurisdictions around the globe in various levels such as full adoption, partial adoption, adoption as guidelines etc.<sup>9</sup>. By setting clear guidelines, AAOIFI ensures that financial practices comply with Shariah principles, thus fostering confidence among investors and stakeholders. This compliance is crucial not only for maintaining the integrity of IFIs but also for fostering a robust regulatory environment. By adhering to these standards, IFIs can mitigate their risks, enhance their credibility, and improve their operational efficiency. This, in turn, contributes to the stability and resilience of the Islamic finance industry<sup>10</sup>.

9 <https://aaoifi.com/?lang=en#>. Please see for related standards: <https://aaoifi.com/standard/accounting-standards/?lang=en>

10 <https://aaoifi.com/announcement/aaoifi-issues-three-final-governance-standards-for-industry-adoption/?lang=en>

Furthermore, AAOIFI's efforts in standardization assist to address the inconsistencies in regulatory frameworks across different jurisdictions. By providing a common ground of standards, AAOIFI facilitates the harmonization of regulatory practices, making it easier for IFIs to operate internationally. This harmonization also aids regulators in monitoring and supervising the industry effectively, ensuring that Islamic finance practices remain sound and consistent globally (Ercanbrack, 2019). The adoption of AAOIFI standards also supports the legal infrastructure of Islamic finance. Clear and consistent standards help in drafting and enforcing laws that govern Islamic financial transactions, thus creating a more secure legal environment. This predictability is vital for attracting investment and promoting the growth of the Islamic finance sector.

The objective of the **IFSB** is to establish international standards applicable to IFIs, encompassing areas such as corporate governance, transparency, and disclosure. The IFSB complements the work of AAOIFI by focusing on prudential, regulatory and supervisory standards, technical/guidance notes and core principles represents an advance in the regulation and supervision of the Islamic financial services industry. In other words, AAOIFI ensures that the internal financial practices of institutions align with Shariah principles, providing a foundation for transparency and ethical practices. IFSB, on the other hand, creates a regulatory framework that ensures the stability and resilience of the entire financial system, addressing risks and ensuring the soundness of IFIs on a macro level (A. Hassan & Mollah, 2018). IFSB issues guidelines and standards covering various aspects of Islamic finance, including risk management, capital adequacy, and corporate governance<sup>11</sup>. The IFSB's standards are designed to align with international best practices while accommodating the unique characteristics of Islamic finance. This alignment helps integrate Islamic finance into the global financial system, promoting stability and resilience.

Bahrain based global standard-setting body of IFIs **the IIFM** focuses on the development and standardization of Islamic financial instruments and documentation/product template. The core mandated area of IIFM is to develop globally standardized Shariah-compliant financial documentation, product confirmations and related guidance notes for the IFSI<sup>12</sup>. IIFM's efforts help create a unified and efficient market for Islamic finance products, facilitating cross-border transactions and promoting market stability. By developing standardized contracts and templates, IIFM reduces legal uncertainties and enhances the transparency and efficiency of Islamic financial markets (Ahmed, 2021).

**The CIBAFI** plays a multifaceted role in fostering an enabling regulatory environment for Islamic finance. Its efforts in advocacy, capacity building, research, standard development, and policy dialogue collectively contribute to the stability, growth, and global integration of the Islamic finance industry and it represents the industry globally<sup>13</sup>. CIBAFI also facilitates industry cooperation and dialogue, contributing to the development of a cohesive regulatory framework and enhancing the global integration of Islamic finance. To protect the rights of IFIs, CIBAFI intervenes by providing comments / feedback during the development of standards, regulations and guidelines in collaboration with related standard-setting bodies from both the Islamic finance and conventional finance sectors<sup>14</sup>. In terms of regulation

<sup>11</sup> <https://www.ifsb.org/standards-page/>

<sup>12</sup> <https://www.iifm.net/>

<sup>13</sup> Please see for details: <https://cibafi.org/About>

<sup>14</sup> See for example: <https://www.cibafi.org/CIBAFINewsDetail?ContentId=48792>



and standards, CIBAFI developed the CIBAFI Sustainability Guide (CIBAFI, 2022)<sup>15</sup>, briefs/reports/notes on key issues such as Risk Management and Corporate Governance Principles. CIBAFI's guidelines and standards are instrumental in promoting a stable, ethical, and sustainable Islamic finance industry. By providing clear frameworks and facilitating industry cooperation, CIBAFI helps ensure that IFIs operate in a manner consistent with Shariah principles while also meeting global regulatory expectations.

**The Islamic Development Bank (IsDB) Group** is acting as a pivotal role in building an enabling regulatory environment for fostering Islamic finance. The IsDB Group is comprised of several key entities, each with distinct roles<sup>16</sup>. As a leading multilateral development bank, the IsDB Group supports the member countries in developing comprehensive legal and regulatory frameworks that align with Sharia principles and promote the growth of the Islamic finance sector. While IsDB Group institutions are not primarily standard-setting bodies, they do support the implementation of international and Islamic financial standards in member countries by financing projects and promoting best practices in economic development. They work with organizations like AAOIFI and IFSB to promote the adoption of these standards. For example, the ICD uses of Shariah-compliant financing instruments in member countries and encourages private sector adoption of Islamic finance principles<sup>17</sup>. The ICIEC ensures that the Islamic risk management and Islamic insurance services it provides are aligned with Shariah and international standards<sup>18</sup>. The ITFC helps implement standards in trade financing<sup>19</sup>. IsDB-I also play a pivotal role in conducting research and offering training programs on Islamic economics, banking, and finance. It works closely with standard-setting bodies to disseminate knowledge and promote the implementation of standards across the Islamic finance industry.

One of the key contributions of IsDB is providing technical assistance and capacity-building programs to member countries. These initiatives will facilitate the enhancement of knowledge and skills of regulators, policymakers, and financial institutions in Islamic finance. By organizing workshops, seminars, and training programs, IsDB facilitates the sharing of best practices and the development of standardized regulatory approaches across jurisdictions<sup>20</sup>. IsDB also cooperates with international standard-setting bodies (i.e. IFSB, AAOIFI) and contributes to the development and dissemination of respective standards and guidelines for the sector (Hidayat et al., 2021).

15 This document provides a framework for IFIs to integrate sustainability into their operations, focusing on ESG factors and aligning with global best practices.

16 IsDB as a parent institution provides financing for development projects in member countries, focusing on infrastructure, education, and health to promote economic development and social progress. Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC) provides risk mitigation tools such as insurance to promote trade and foreign direct investment in member countries. Islamic Corporation for the Development of the Private Sector (ICD) focuses on promoting private sector growth through financing small and medium enterprises and fostering partnerships in member countries. International Islamic Trade Finance Corporation (ITFC) focuses on the trade capabilities of member countries, enhancing intra-trade and fostering international trade links. Islamic Development Bank Institute (IsDB-I) dedicated to research, training, and capacity building to promote Islamic economics, finance, and banking. Please look at for details: <https://www.isdb.org/isdb-group>

17 Please see for details: <https://www.isdb.org/sites/default/files/media/documents/2023-11/Products%20Brochure%20-%20Eng%20-%20LV.pdf>

18 Please see for details: <https://iciec.isdb.org/wp-content/uploads/2023/05/ICIEC-AT-A-GLANCE-2023-ENGLISH.pdf>

19 Please see for details: <https://www.itfc-idb.org/getattachment/b99ab768-5dfa-430c-84dd-5c36ef86998f/ITFC-AR-2023-Eng-Final.pdf>

20 <https://www.isdb.org/what-we-do>

Additionally, IsDB supports the implementation of innovative Islamic financial instruments, such as thematic sukuk, by assisting member countries in structuring and issuing these instruments in compliance with Sharia principles. In terms of regulation side, IsDB, through its investment arm ISDB-I, has recently issued a Green Sukuk Framework (ICMA and ISDB, 2024) in collaboration with the International Capital Market Association (ICMA). This framework is aimed at maintaining environmentally sustainable projects, aligning with the broader objectives of the IsDB Group to promote green and sustainable financing / development within its member countries.

## Key Challenges and Recommendations

The journey towards an enabling regulatory environment for Islamic finance is troubled with challenges. Regulatory arbitrage, a lack of standardized Shariah interpretations, and limited awareness and understanding of Islamic finance principles among regulators and market participants are significant hurdles. To address these challenges, several recommendations will be recommended:

*i.* In many jurisdictions, regulators initially issued regulations exclusively for the Islamic banking sector. However, Islamic finance has evolved beyond just banking services to include Takaful, capital markets, and microfinance, addressing the needs of various economic sectors. Moreover, regulatory and supervisory bodies, regardless of the specific frameworks they apply to IFIs, typically maintain a neutral stance toward the Islamic finance sector. However, a significant challenge for regulators is the need to differentiate between the oversight of Islamic finance and conventional finance. This distinction requires breaking away from entrenched practices and established norms, which is crucial for cultivating a robust financial industry that benefits the broader economy (COMCEC, 2020). In many jurisdictions, IFIs are still obligated to comply with regulations designed for conventional finance and must adhere to accounting standards that are not fully tailored to the nature of their business operations (El-Hawary, Dahlia et al., 2004).

Centralized SSBs and market participants through targeted training and education programs can enhance the capacity of regulators. This will ensure a deeper understanding of Islamic finance principles and foster a more conducive regulatory environment. Continuous professional development and certification programs can also help maintain high standards of knowledge and practice.

*ii.* The lack of a standardized regulatory framework is regarded as one of the most significant issues facing the sector. This inconsistency across jurisdictions complicates cross-border operations and leads to inefficiencies, resulting in higher compliance costs and potential regulatory arbitrage. The absence of a coordinated approach also hinders the adoption of best practices and slows the growth of the industry. A greater degree of standardization and codification is essential in certain areas to achieve broader acceptance from regional and international investors. In some cases, the level of standardization remains limited even at the local level, highlighting the need for further advancements both regionally and internationally to enhance investor confidence and industry growth (COMCEC, 2022).

The harmonization of regulations is crucial for the effective operation of a unified Islamic finance market, as it would reduce these obstacles and foster a more competitive global presence for the industry. The promotion of international collaboration and knowledge sharing among countries can help harmonize regulatory standards and facilitate the adoption of best practices. Joint initiatives among bodies and countries, such as cross-border regulations and cooperative frameworks, can enhance the global integration of Islamic finance.

**iii.** The countries that promote Islamic finance are at varying stages of economic, market, and institutional development. As a result, they are also in different phases of legal and regulatory progress for Islamic finance, highlighting the need for cooperation to establish harmonized and standardized frameworks for its implementation (Ahmed, Jaseem, 2020). Insufficient collaboration among standard -setting bodies and regulators from different jurisdictions complicates cross-border operations, increases compliance costs, and hinders the development of a truly global financial market (World Economic Forum (WEF), 2023). Likewise, inconsistent governance, ethical, and financial standards across jurisdictions make it difficult for IFIs to align with global financial norms while maintaining their unique Sharia-compliant practices. There have been numerous uncoordinated efforts in standardizing Islamic finance across various sectors and aspects. Even when certain standards and guidelines are adopted from other jurisdictions, significant difficulties arise during their implementation, highlighting the need for a more synchronized and comprehensive approach to standardization across the industry. For example, individual efforts of bodies like AAOIFI and IFSB toward standardization could potentially lead to duplication of efforts and inconsistencies in some related standards issued by the bodies (COMCEC, 2022).

Supporting the efforts of standard-setting bodies like the AAOIFI and IFSB in developing and promoting standardized guidelines and frameworks for Islamic finance. This includes not only financial and prudential standards but also guidelines on ethical and governance practices. Regulatory and supervisory bodies should focus on implementing globally accepted standards and guidelines, rather than issuing national standards. Additionally, as highlighted by IFSB Stability Report (2024) proactive regulatory actions are crucial in addressing risks such as natural catastrophes, climate risks, and geopolitical conflicts to safeguard the stability and resilience of Islamic finance. These measures are essential to ensuring that the financial system remains just and equitable while promoting long-term sustainability. These include strengthening regulatory frameworks, implementing stress testing requirements, enhancing risk modelling for climate risk management, and monitoring potential vulnerabilities and risks, including interlinkages between sectors.

**iv.** A significant challenge for the Islamic finance industry is the limited public awareness and understanding of its principles and products, which hinders demand and participation. Despite its strong growth potential, misconceptions and a lack of confidence in the Sharia compliance of Islamic financial services, particularly in niche markets, further restrict broader adoption and market penetration (FitchRatings, 2021).

Increasing public awareness of Islamic finance through educational campaigns and outreach programs can help build a broader base of informed consumers and investors, driving demand for Islamic financial products and services. Financial literacy programs can clarify Islamic finance principles and encourage wider participation.

v. Local financial institutions may be reluctant to adopt global standards that they perceive as misaligned with their specific economic, legal, or cultural environments. Additionally, a lack of coordination and communication between national and international bodies can lead to fragmented efforts, resulting in minimal progress toward true standardization. The varying levels of expertise and resources available in different jurisdictions also make consistent and widespread participation difficult to achieve (COMCEC, 2020, 2022).

Forming national and international research and working committees focused on harmonization and standardization can help minimize discrepancies and enhance connectivity by bridging the gap between local and global industry participants. For example, AAOIFI primarily focuses on developing standards for accounting, auditing, governance, ethics, and Shariah compliance for Islamic financial institutions. The IFSB, on the other hand, concentrates on prudential and regulatory standards. To ensure global consistency and harmonization, these bodies may collaborate on standard setting, as they worked together on the development of a Shariah governance framework<sup>21</sup>.

These recommendations emphasize the critical factors of developing and integrating the Islamic finance sector. While each requires focused attention, they are interconnected rather than isolated. Achieving cohesive progress in Islamic finance necessitates establishing robust interconnections among these areas. For instance, enhancing the capacity of regulators, Shariah scholars, and market participants can be synergized with international collaboration and knowledge sharing, fostering a unified approach to regulatory standards and best practices. Supporting standard-setting bodies like AAOIFI and IFSB can be more effective when coupled with targeted training and continuous professional development, ensuring all stakeholders are well-versed in the latest guidelines and frameworks. Moreover, a robust cooperation system among supervisory agencies should be established to coordinate, comply with, and enforce standards. Enhancing communication between international Islamic standard-setting bodies (like AAOIFI, IFSB, IIFM, and future relevant bodies) and national regulators will ensure the smooth adaptation and adoption of international standards within the national ecosystem<sup>22</sup>. Furthermore, increasing public awareness through educational campaigns can be integrated with financial literacy programs, cultivating a well-informed consumer base that drives demand for Islamic financial products and services. By establishing interconnected initiatives, the comprehensive and holistic development of the Islamic finance sector will foster its growth and global integration.

21 <https://aaoifi.com/announcement/ifsb-and-aaoifi-conclude-the-joint-work-on-shariah-governance-and-agree-on-the-way-forward/?lang=en>

22 Please see for details: COMCEC (2022), Standardization Efforts in Islamic Finance, COMCEC Coordination Office. <http://ebook.comcec.org/Kutuphane/Icerik/9e0f2d60-f2c4-4de5-8902-17b99eee4d6b.pdf>



## Conclusion

Islamic finance is increasingly recognized globally as an alternative to the conventional finance system. This expanding interest requires a robust and resilient regulatory environment that is efficient, competitive, and supportive of its development. A comprehensive regulatory framework is essential for integrating Islamic finance into the global financial system, ensuring its stability and credibility.

On the other hand, creating an enabling regulatory environment encounters numerous challenges. This reflection paper has explored the critical elements necessary for building such an environment, drawing insights from various reports, standards, and guidelines of international Islamic financial institutions and standard-setting bodies. To address these hurdles, several policy recommendations have been made, emphasizing the need for targeted reforms and harmonization across different sectors of Islamic finance.

A key recommendation is that regulators must extend their oversight beyond the Islamic banking sector, differentiating their oversight of Islamic and conventional finance, breaking away from entrenched practices to cultivate a robust financial industry that benefits the broader economy. Other important recommendations are: (I). the harmonization of regulatory frameworks across jurisdictions and **ii.** supporting the efforts of standard-setting bodies such as AAOIFI and IFSB in developing standardized guidelines is crucial. Lastly, the collaborative efforts of international Islamic finance institutions/bodies and organizations are vital for the ongoing development and sustainable progress of the Islamic finance sector, addressing challenges, and fostering a cohesive and resilient global financial system.

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## The Islamic Banking and Economic Growth in the OIC Member Countries

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### I. Introduction

Islamic banking is a financial system that provides financial services while adhering to Sharia principles, offering products that are compliant with Islamic law (Fahamsyah, 2023). Unlike conventional banking, Islamic banking emphasizes profit-sharing arrangements and asset-based financing, such as mudharabah and murabahah (Mahmudah & Djamhuri, 2020). Islamic banking emerged in response to the need for financial services that comply with Islamic beliefs and values (Raja et al., 2020). It caters to the needs of Muslim customers who are required to follow Sharia principles in all aspects of their lives (Nawi et al., 2013). Islamic banks are expected to operate differently from conventional banks, reflecting their Islamic identity in all business activities (Zainuldin, 2013). The fundamental concept of Islamic banking is to provide banking products and services that are in line with Islamic values and do not involve interest-based transactions (Abdulrahim, 2018).

The growth of Islamic banking has been significant, with the first private Islamic bank established in 1975 following the initial experiences with rural savings banks in Egypt (Amrani & Najab, 2020). Islamic banking has gained traction globally, with various countries recognizing the importance of offering financial services that cater to the needs of Muslim population (Ezeh & Nkamnebe, 2019). The success of Islamic banking has been attributed to its adherence to Sharia principles, which resonates with the ethical and moral considerations of Islamic teachings (Shah et al., 2016).

Economic growth is a critical factor in the development and prosperity of the member countries of the Organization of Islamic Cooperation (OIC). Several factors have been identified as significant determinants of economic growth in the OIC member countries. One key factor is the quality of institutions, which has been found to positively affect economic growth (Wibowo et al., 2021; Ali et al., 2021). Trade openness and human capital formation policies have also been highlighted as essential for achieving economic growth in OIC member countries (Gunduz et al., 2021). Moreover, natural resources have been shown to have a positive impact on economic growth in OIC member countries (Qoir, 2024).

Furthermore, tourism has been recognized as a sector that can significantly contribute to economic growth in the OIC Member Countries (Citaningati et al., 2023; Rahman et al., 2022). Studies have indicated that the tourism sector, along with variables such as inflation, foreign direct investment, and economic growth, can influence the economic development of OIC member countries (Rahman et al., 2022).

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Additionally, the role of Islamic banking in promoting financial inclusion among women in the OIC member countries has been studied, showcasing the potential for financial institutions to drive economic growth and inclusion (Ertimi et al., 2016).

This paper examines the impact of Islamic banking on economic growth in member countries of the Organization of Islamic Cooperation (OIC). By examining the principles and practices of Islamic banking, the paper aims to comment on how these financial systems contribute to sustainable economic development in these countries. The scope of this study encompasses a comprehensive analysis of the current status and prospects of Islamic banking in various OIC countries. Additionally, the paper will identify the challenges and opportunities facing Islamic banking institutions and offer policy recommendations to enhance their role in driving economic growth. Through this exploration, the paper aims to provide valuable insights for policymakers, financial institutions, and researchers interested in the nexus between Islamic finance and economic development.

## **II. Empirical Evidence on the Impact of Islamic Banking on Economic Growth in the OIC Member Countries**

Islamic banking has been a subject of interest in the context of economic growth within the Organization of Islamic Cooperation (OIC) countries. Islamic banking has shown significant growth and acceptance globally, with projections indicating continued expansion, especially in countries with predominantly Muslim populations like Indonesia, Malaysia, and GCC countries (Pranajaya et al., 2019; Seyed-Javadin et al., 2014). Several empirical studies have been conducted to examine the impact of Islamic banking on economic growth in these nations. Farahani & Dastan (2013) used a panel co-integration approach to analyze the relationship between Islamic bank financing and economic growth in selected OIC countries. The study found a positive and significant correlation between Islamic banks' financing and economic growth in the long run. Similarly, Hafnida et al. (2016) focused on four OIC countries and concluded that Islamic financing is positively associated with economic growth, emphasizing the role of a well-functioning banking system in promoting economic development. Additionally, Islamic modes of finance, such as Musharakah, were identified as mechanisms that can boost the country's socio-economic development, highlighting the potential of Islamic finance in driving economic progress in Pakistan (Ahmad et al., 2019). Besides, Aysan et al. (2017) analyzed that depositors in Islamic banks are more responsive when they have larger deposit amounts.

Moreover, Saeed et al. (2020) examined the relationship between Islamic financial development and economic growth in Pakistan, highlighting the positive impact of Islamic banking on economic growth. The study suggested that countries with low economic growth could benefit from expanding their Islamic banking sector. In addition, Supriani et al. (2021) studied the Indonesian experience and found that Islamic banks' assets contribute to increasing economic growth by effectively allocating funds to real economic activities. Furthermore, Elmawazini et al. (2020) examined the impact of different types of banking institutions on economic growth, emphasizing the positive effect of ethical principles in Islamic finance on economic development. The study distinguishes between Islamic and conventional banks and highlights the positive influence of Islamic finance on economic growth. Besides, Hasan et al. (2019) identified liquid liabilities and Islamic finance as significant factors influencing financial development in the OIC member countries, which further supports the positive impact of Islamic banking on economic growth. Also, based on an analysis of quarterly data from 40 Turkish commercial banks between 2006 and 2014, it

was found that Islamic banks are more likely to finance SMEs than conventional banks, with the quality of their SME loan portfolios being comparable. These findings are robust across different bank ownership forms and model specifications (Aysan et al., 2016). The presence of Islamic banking has been shown to significantly affect the profitability performance of banks in the OIC region (Yimam, 2024).

Studies have also examined the correlation between Islamic banking financial inclusion and tax revenues in OIC member countries, suggesting a potential positive relationship (Nur et al., 2022). Islamic banking has also been found to positively influence economic growth, particularly in countries with a higher market share of Islamic banks (Hafnida et al., 2016; Rahman et al., 2022). Research has explored the link between financial inclusion, financial stability, and income inequality in selected OIC countries, highlighting how enhancing financial inclusion through mechanisms such as Islamic banking can contribute to reducing income inequality (Abdulkarim & Ali, 2019).

### III. Addressing Challenges and Seizing Opportunities by PESTEL Analysis

Islamic banking in Organization of Islamic Cooperation (OIC) member countries faces regulatory and legal challenges that can impact economic growth. Regulators and supervisor agencies encounter difficulties in overseeing Islamic banking operations (Song & Oosthuizen, 2014). Conflicting views between Islamic jurists and policymakers exacerbate Sharia-based issues in Islamic banking, affecting countries such as Pakistan, Malaysia, Bahrain, and Saudi Arabia (Ayaz et al., 2018). Moreover, banks' dependence in the OIC member countries on non-traditional activities for profitability necessitates effective regulation to prevent crises (Al-Harbi, 2019). The role of Islamic banking in promoting financial inclusion, especially among women, requires empirical evaluation to ensure inclusive growth (Rahman et al., 2022). Additionally, the interactive effects of Islamic banking development and institutional factors on financial inclusion in the OIC member countries require assessment (Kamalu & Ibrahim, 2021). Integrating Islamic finance into the financial system is crucial for OIC governments to drive financial development (Hasan et al., 2019).

Furthermore, the legal and regulatory frameworks for Islamic banking in the OIC member countries play a vital role in addressing challenges. Different jurisdictions adopt different frameworks, leading to global obstacles for Islamic banks (Hassan et al., 2021). Engaging in corporate social responsibility can enhance the effectiveness of Islamic banks in narrowing income inequality in the OIC member countries (Mohamad, 2020). Additionally, the impact of corporate governance on intellectual capital efficiency in Islamic banks of OIC countries underlines the importance of governance practices (Aslam & Haron, 2020). Additionally, it has been emphasized that improving capital adequacy guidelines and risk management practices for Islamic banks in OIC member countries is crucial for Islamic banking to have a positive impact on income distribution (Jallow, 2022).

A PESTEL (Political, Economic, Social, Technological, Environmental, and Legal) analysis is essential for a thorough understanding of the external factors influencing Islamic banking and economic growth. The table below outlines the different categories of the PESTEL framework, describing each factor's potential impact on Islamic banking and economic growth. It also includes strategic mitigation measures to address these challenges and leverage opportunities for sustainable development.

## PESTEL Analysis Impact and Strategic Response in Islamic Banking for Economic Growth

| PESTEL Category | Description                                                                         | Potential Impact on Islamic Banking                                                                              | Potential Impact on Economic Growth                                                                  | Mitigation Strategies                                                                                                                           |
|-----------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Political       | Political instability, regulatory changes, and international conflicts.             | Erosion of investor and customer confidence, disruption of operations, and increased compliance costs.           | Reduced investment, economic uncertainty, and a potential slowdown in economic activity.             | Strengthening regulatory frameworks and government institutions.<br><br>Enhancing international cooperation and conflict resolution mechanisms. |
| Economic        | Economic downturns, inflation, currency fluctuations, and interest rate changes.    | Reduced profitability, increased default rates, and potential liquidity issues.                                  | A slowdown in economic activities, reduced consumer spending, and lower investment levels.           | Implementing sound monetary and fiscal policies.<br><br>Diversifying economic activities and sources of revenue.                                |
| Social          | Changes in consumer preferences, financial literacy levels, and demographics.       | Lower demand for Islamic banking products, challenges in reaching new customer segments, and reputational risks. | Reduced economic participation and slower adoption of financial services.                            | Increasing financial literacy and awareness campaigns.<br><br>Developing products tailored to changing demographics and preferences.            |
| Technological   | Cybersecurity threats, technological disruptions, and the rapid pace of innovation. | Data breaches, operational disruptions, and increased costs for technology upgrades and cybersecurity measures.  | Disruptions in financial services, reduced trust in digital banking, and slower technology adoption. | Investing in robust cyber security measures and technology infrastructure.<br><br>Fostering a culture of continuous innovation and adaptation.  |

|               |                                                                                                                                      |                                                                                                                    |                                                                                                                    |                                                                                                                                                            |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental | Climate change, natural disasters, and environmental regulations.                                                                    | Operational disruption, increased insurance costs, and potential reputational damage from unsustainable practices. | Economic losses from environmental damage, increased compliance costs, and potential disruption to key industries. | Development and implementation of green finance initiatives.<br><br>Ensuring that business continuity planning includes environmental risk considerations. |
| Legal         | Changes in Sharia compliance standards, legal disputes, and inconsistencies in regulatory frameworks across different jurisdictions. | Increased compliance costs, legal uncertainties, and potential loss of customer trust.                             | Inconsistent application of regulations, potential trade barriers, and reduced investor confidence.                | Harmonisation of legal frameworks in OIC countries.<br><br>Establish clear and consistent Sharia compliance standards and dispute resolution mechanisms.   |

## Source: Authors

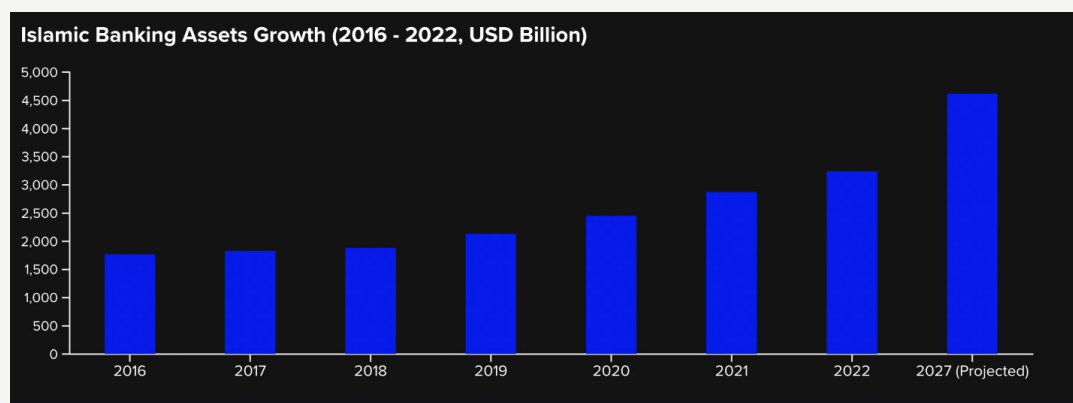
The PESTEL analysis identifies several critical factors affecting Islamic banking and economic growth in OIC member countries. Political instability and regulatory changes can erode investor confidence and disrupt operations, while economic downturns and inflation reduce profitability and consumer spending. Social changes, including consumer preferences and financial literacy shifts, have led to lower demand for Islamic banking products. Technological challenges such as cyber security threats and rapid innovation can lead to data breaches and operational disruptions. Environmental issues such as climate change and natural disasters increase operational costs and pose reputational risks. Also, legal inconsistencies in Sharia compliance and regulatory frameworks elevate compliance costs and legal uncertainties. Aysan et al. (2024) find that from 2016 to 2021, larger Islamic banks and those in developed countries provide more accurate survey responses, with significant reductions in credit portfolio risks due to improved risk management, economic growth, stricter regulations, and diversified portfolios, as well as reduced concerns about terrorism financing and cyber security due to enhanced regulations and investments, emphasizing the need for continued analysis beyond 2021.

To mitigate these impacts, policymakers should strengthen regulatory frameworks, implement sound economic policies, enhance financial literacy, invest in technology and cybersecurity, promote green finance initiatives, and harmonize legal standards across jurisdictions. Aysan et al. (2016) revealed that despite the increasing importance of digitalization in banking, Islamic banks globally lag behind in adopting new technologies such as AI, machine learning, and DLTs, with the exception of mobile banking, highlighting the need for greater investment and effort in financial technologies to stay competitive with conventional banks. In addition, Aysan and Bergigui (2021) assess block chain-based solutions for achieving the SDGs, highlighting that while blockchain has significant potential for disruptive innovation, it remains immature with several gaps in development, monitoring, risk mitigation, and ethical considerations. Bridging these gaps is essential for blockchain to serve as an effective SDG accelerator, and Islamic finance can play a pivotal role in this transition towards a circular economy.



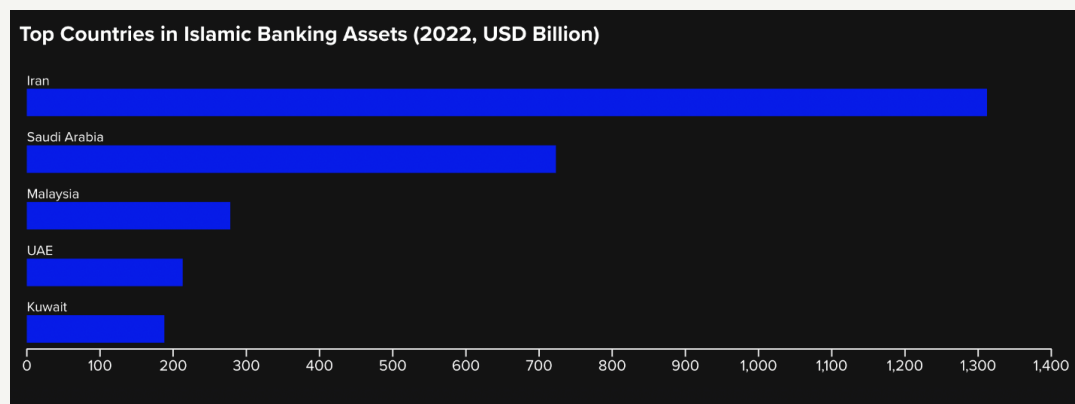
Aysan and Ozturk (2018) find that Islamic banks in Türkiye exhibit pro-cyclical lending patterns similar to conventional banks, driven by regulatory changes and competitive pressures, challenging the notion of Islamic banks as natural stabilizers in the banking system. Aysan et al. (2015) demonstrates that after the 2000 crisis, the Islamic deposit market in Türkiye exhibits quantity-based market discipline through the capital ratio, with less convincing evidence of price discipline, and that the 2005 deposit insurance reform enhanced quantity-based discipline in the market. While, Aysan et al. (2017) pinpointed that Islamic banks in Türkiye exhibit greater sensitivity to interest rate changes in both deposits and credits compared to conventional banks, leading to more significant contractions in lending during tight monetary policy periods, largely due to their focus on SME financing and deposit rate. Besides, Disli et al. (2023) examine that, after controlling for bank-specific characteristics, Islamic banks in Türkiye are more engaged in financing MSMEs and generate more revenues from this segment compared to conventional banks, although there are no distinguishable differences in the quality of MSME lending portfolios between the two types of banks. Aysan et al. (2017) highlights the dynamic link between macroeconomic shocks and bank behavior, showing that adverse shocks can weaken firms' balance sheets and bank capital, leading to financial disintermediation, while positive shocks can enhance firms' net worth and increase bank lending; understanding this interaction is crucial for effective policymaking, financial intermediation, and managing economic cycles.

Interestingly, the Islamic banking sector has exhibited substantial growth over the past decade, a trend that is methodically captured through various data visualizations. These visual representations, particularly bar charts, serve as critical tools for analysing and comprehending the expansion and distribution of Islamic banking assets. By comparing the global growth path of these assets and examining the distribution within specific key markets, stakeholders can gain insight into both the overall scale of growth and the comparative performance of nations within this sector. Such an approach not only highlights the dynamism and potential of Islamic finance but also facilitates a deeper understanding of regional disparities and growth patterns, which is essential for strategic planning and policy formulation in this field.



**Source:** Revinitiv

The bar chart illustrates the growth of assets in the Islamic banking sector from 2016 to 2022, with a projection for 2027. It clearly shows a steady increase in the total assets, rising from approximately \$1,500 billion in 2016 to about \$4,000 billion by 2022. This trend reflects a robust expansion in Islamic finance, driven by increasing demand for Sharia-compliant financial products and the broadening of Islamic financial institutions' global footprint. The bar chart further projects a significant jump in assets to nearly \$5,000 billion by 2027, indicating continued confidence in the sector's growth potential. These data are critical in understanding the evolving landscape of Islamic finance and highlight its growing significance in the global financial market.



**Source:** Refinitiv

Meanwhile, this bar chart shows the distribution of Islamic banking assets among the top countries in 2022, measured in USD billion. Iran is clearly in the lead with assets surpassing 1,300 billion USD, followed by Saudi Arabia, which holds assets close to 800 billion USD. Malaysia and the UAE also feature prominently, with assets around 600 billion USD and 400 billion USD, respectively. Kuwait, while still among the top countries, has a comparatively smaller asset base of approximately 300 billion USD. This visualization underlines the varied scale and concentration of Islamic banking assets in different countries, reflecting regional financial markets' adherence to and engagement with Sharia-compliant financial services. Such data is crucial for understanding the economic impact and growth progression of Islamic finance in these key markets.

Based on the data presented both bar charts illustrating the growth of Islamic banking assets globally and the distribution of these assets across key countries in 2022, it is recommended that policymakers and stakeholders in the Islamic finance sector focus on enhancing regulatory frameworks and encouraging innovation. Specifically, countries with emerging Islamic finance markets should adopt best practices from leading countries such as Iran and Saudi Arabia to boost growth and stability in their financial sectors. This could include the development of specialized training programs for Islamic finance professionals, the introduction of more diverse Sharia-compliant financial products, and increased cross-border collaboration to tap international markets. Moreover, with Islamic banking assets projected to grow significantly by 2027, there should be an emphasis on integrating digital technologies to improve the efficiency and reach of these financial services, ensuring that the sector remains competitive and relevant in the evolving global financial landscape.

## V. Conclusion

Islamic banking has emerged as a significant financial sector component in many OIC (Organization of Islamic Cooperation) member countries, contributing positively to economic growth. Key findings indicate that Islamic banking institutions have been resilient during global financial crises, primarily due to their adherence to risk-sharing principles and the prohibition of speculative activities. Empirical evidence suggests that countries with a well-developed Islamic banking sector tend to experience higher levels of financial inclusion, improved access to finance for small and medium-sized enterprises (SMEs) and enhanced overall economic stability. Furthermore, Islamic banking has been found to boost ethical investment and support social justice, in line with the socio-economic objectives of many OIC countries.

The positive impact of Islamic banking on economic growth in OIC member countries has several implications for policymakers and stakeholders. Firstly, governments should consider creating an enabling regulatory environment supporting Islamic banking and finance growth. This includes developing comprehensive legal frameworks that recognize and facilitate Sharia-compliant financial transactions. Additionally, policymakers should encourage the integration of Islamic banking into the broader financial system to ensure balanced and inclusive economic growth. Stakeholders, including financial institutions and investors, should focus on developing innovative Islamic financial products that cater to the diverse needs of the population, particularly SMEs and underserved communities. Moreover, there is a need for capacity building and awareness programs to educate the public and financial professionals about the benefits and principles of Islamic banking. Finally, collaboration among OIC Member Countries in sharing best practices and harmonizing standards can further enhance the effectiveness and reach of Islamic banking.

Besides, to address the technological challenges and cybersecurity threats identified, Islamic banks need to significantly increase their investment in financial technology. This includes the adoption of artificial intelligence (AI), machine learning, distributed ledger technologies (DLTs), and advanced cybersecurity measures. The lag behind in technology adoption puts Islamic banks at a competitive disadvantage compared to conventional banks, especially in the increasingly digitalized financial landscape. By adopting these technologies, Islamic banks can improve operational efficiency, enhance the customer experience, and offer innovative financial products that cater to the evolving needs of consumers. Furthermore, robust cybersecurity measures are essential to protect against data breaches and operational disruptions, thereby safeguarding the banks' reputations and customer trust.

Environmental issues such as climate change and natural disasters pose significant risks to the operational costs and reputation of Islamic banks. To mitigate these risks and capitalize on emerging opportunities, policymakers should promote green finance initiatives within the Islamic banking sector. Green finance can attract environmentally conscious investors and consumers, providing the dual benefit of supporting sustainable development while enhancing the banks' financial performance. Islamic finance, with its principles of ethical and socially responsible investment, is uniquely positioned to lead the way in green finance. Encouraging investment in renewable energy projects, sustainable agriculture, and eco-friendly infrastructure can help align the sector with global sustainability goals and the circular economy.

Legal inconsistencies and fragmented regulatory frameworks across OIC member countries create significant challenges for Islamic banks, increasing compliance costs and legal uncertainties. Policymakers should work towards harmonizing legal standards and creating a unified regulatory environment for Islamic finance. This can be achieved through international cooperation, dialogue, and the establishment of standardized Sharia compliance criteria. A harmonized regulatory framework would reduce the complexity and cost of compliance, allowing Islamic banks to operate more efficiently and confidently across different jurisdictions. Additionally, enhanced regulatory consistency can attract international investors by providing a more predictable and stable investment environment, thereby supporting greater economic integration and growth within the OIC region.

Finally, an important direction is to conduct comparative studies between Islamic and conventional banking systems within the same economic context to identify specific factors contributing to the superior performance of Islamic banking. Researchers could also examine the long-term sustainability of Islamic banking practices and their impact on different sectors of the economy, such as agriculture, manufacturing, and services. Another promising area is to examine the role of technological advancements, such as fintech, in enhancing the efficiency and accessibility of Islamic banking services. Additionally, studies focusing on the socio-economic impact of Islamic banking on poverty alleviation, income inequality, and financial inclusion would provide valuable insights for policymakers. Finally, cross-country analyses considering cultural, regulatory, and economic differences among OIC member countries can provide a comprehensive understanding of the conditions under which Islamic banking contributes most effectively to economic growth.



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## Empowering Small Businesses in the OIC Member Countries through Islamic Microfinance

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### 1. Introduction

Micro and small enterprises (MSEs) are integral to the economic and social development of OIC member countries. Their impact is profound in various dimensions, notably in job creation, economic diversification, and community development. MSEs provide critical employment opportunities, particularly in areas where large corporations are absent or limited. By offering jobs, MSEs help mitigate unemployment, thereby contributing significantly to poverty alleviation—a major objective in many OIC Member Countries.

The flexibility of MSEs allows them to operate across diverse sectors, from agriculture and manufacturing to services and technology. This adaptability fosters economic resilience and diversification, reducing reliance on a single industry or resource. In regions where economic dependency on one sector is high, MSEs provide a buffer against economic downturns and fluctuations, enhancing overall economic stability.

In addition to their economic contributions, MSEs are pivotal in driving innovation and entrepreneurship. They are often at the forefront of developing new products, services, and business models, thereby boosting competitiveness and economic dynamism. This spirit of innovation not only supports the growth of individual enterprises but also stimulates broader economic activity and entrepreneurial ventures across various sectors.

MSEs also play a crucial role in strengthening social fabric. Operating within local communities, they provide goods and services tailored to the specific needs of these populations. This localized approach helps build and reinforce community ties, contributing to social stability and cohesion. By meeting local needs and fostering community engagement, MSEs enhance social welfare and development.

Moreover, MSEs are instrumental in empowering disadvantaged groups, including women and youth. They offer employment and entrepreneurial opportunities that promote gender equality and provide young people with pathways to economic participation and personal growth. This empowerment is essential for fully harnessing the potential of the population and ensuring equitable and inclusive growth.

The role of MSEs in utilizing local resources and talents cannot be understated. By leveraging local skills, raw materials, and traditional knowledge, these enterprises create value-added products and services that reflect regional characteristics. This approach not only supports sustainable development by using local resources responsibly but also helps preserve cultural heritage and identity.

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## 1.1. Major Challenges for MSEs

However, MSEs in OIC member countries encounter several significant challenges. Access to finance remains a primary obstacle, as many MSEs struggle to secure loans from traditional financial institutions due to insufficient collateral, limited credit histories, and perceived high risks. This financial constraint hampers their ability to invest in new technologies, expand operations, and manage cash flow effectively.

Navigating complex regulatory environments presents another challenge. Bureaucratic procedures and compliance requirements can be overwhelming for small enterprises, consuming valuable time and resources that could be better spent on core business activities. The lack of streamlined processes and support from government agencies exacerbates these difficulties, making it harder for MSEs to thrive.

Market access is also a critical issue. Many small businesses find it challenging to enter broader markets due to inadequate marketing resources, limited networks, and intense competition from larger firms with better economies of scale. This restricted market reach limits their growth potential and ability to scale operations effectively.

Operational challenges further impact MSEs. They often lack the infrastructure, manpower, and technological resources necessary for efficient expansion. Supply chain management issues, such as difficulties in sourcing raw materials at competitive prices and ensuring timely delivery, also hinder their growth and operational efficiency.

Human resource issues compound these challenges. MSEs face difficulties in attracting and retaining skilled employees, as they often cannot offer compensation and benefits comparable to larger companies. Providing adequate training and development opportunities is resource-intensive but essential for maintaining a competitive edge and fostering employee growth.

Technological adoption remains a significant barrier for many MSEs. Financial constraints and a lack of technical expertise hinder their ability to integrate advanced technologies into their operations. This technological gap can impede their efficiency, productivity, and ability to compete in an increasingly digital economy.

Addressing these challenges requires comprehensive support from policymakers, financial institutions, and development organizations. Creating an enabling environment for MSEs involves improving access to finance, streamlining regulatory processes, enhancing market access, and providing support for operational and technological development. By addressing these issues, stakeholders can help MSEs overcome barriers and fully realize their potential, contributing to inclusive and sustainable growth in OIC member countries.

## **2. Addressing the Challenges through Microfinance**

Microfinance serves as a vital solution to the “access to finance” challenge faced by micro and small enterprises (MSEs), particularly in developing economies. Microfinance institutions (MFIs) provide small loans and other financial services, such as savings and insurance, tailored to the needs of MSEs that often struggle to secure traditional bank loans due to their lack of collateral, credit history, or formal business documentation. By offering accessible and flexible financing options, microfinance enables entrepreneurs to invest in their businesses, expand operations, and enhance productivity. This, in turn, promotes economic growth, reduces poverty, and empowers underserved communities. Additionally, microfinance addresses challenges like financial literacy by often including training programs to improve business management skills, ensuring that MSEs can effectively use the funds and grow sustainably.

However, microfinance as offered by conventional financial institutions may not offer an ideal solution in Organization of Islamic Cooperation (OIC) member countries, as it can conflict with the core belief systems and cultural values rooted in Islamic principles. Conventional microfinance that charges interest is seen as exploitative and may deter individuals from seeking financial assistance, even when they need it most. This disconnect between financial models and cultural or religious values can limit the effectiveness of microfinance in fostering economic empowerment and poverty alleviation in OIC countries.

Islamic microfinance represents a fusion of Islamic finance principles with conventional microfinance practices to create financial solutions that are more appropriate and accepted in Muslim-majority societies. Many Muslims avoid conventional microfinance because it relies on interest (riba), which is prohibited in Islam. Studies indicate that religious beliefs significantly influence the acceptance of financial services in Muslim-majority countries. Research conducted by institutions like the Consultative Group to Assist the Poor (CGAP) shows a clear preference for financial products that comply with Shariah principles. In countries such as Pakistan, Indonesia, and Bangladesh, where cultural and religious values strongly impact financial decisions, conventional microfinance is often viewed negatively due to its association with high-interest rates and exploitative practices.

Conventional microfinance frequently involves high-interest rates, which can lead to severe financial strain and over-indebtedness for borrowers. The burden of high-interest rates can trap individuals and small businesses in a cycle of debt, making it challenging to manage finances and repay loans. In contrast, Islamic microfinance avoids interest by employing Shariah-compliant financing methods. These include Murabaha (cost-plus financing), Mudarabah (profit-sharing), and Musharakah (joint ventures) for profit-oriented activities, as well as Qard al-Hasan (benevolent loans) and charitable grants like Zakat and Sadaqah for non-profit purposes. These methods mitigate the risk of over-indebtedness by eliminating the financial burden associated with interest rates.

Additionally, conventional microfinance often focuses solely on providing loans, neglecting other crucial support services such as financial literacy training, business development, and mentorship. This lack of holistic support can hinder the effective growth and management of small businesses. Islamic microfinance institutions (IMFIs), on the other hand, frequently offer comprehensive support services alongside financing. This approach helps borrowers gain the necessary knowledge and skills to manage and expand their businesses successfully.

Conventional microfinance institutions typically offer a limited range of products, mainly micro-loans, which do not fully address the diverse financial needs of micro and small enterprises (MSEs). Islamic financial principles provide a broader range of financial products, including Takaful (Islamic insurance), savings accounts, and investment options. This diversity caters to various financial needs and promotes comprehensive financial inclusion.

Short loan terms are another challenge in conventional microfinance, often placing pressure on borrowers to achieve quick returns. This pressure can result in hasty and suboptimal business decisions that undermine long-term growth. Islamic microfinance can offer more flexible financing terms that align with borrowers' cash flow patterns, supporting sustainable business development. For instance, Mudarabah and Musharakah contracts can be structured to accommodate longer-term financing needs, allowing businesses to grow at a sustainable pace without the stress of short repayment periods.

Rigid repayment structures in conventional microfinance can also pose difficulties, particularly for borrowers with seasonal or variable incomes. These inflexible terms can lead to increased default rates. Islamic microfinance institutions can design flexible repayment schedules based on profit-sharing and revenue patterns, which better align with borrowers' financial realities and reduce default rates.

The aggressive expansion strategies and competitive practices of some conventional microfinance institutions can lead to over-indebtedness among borrowers, especially when multiple loans from various sources accumulate. Islamic finance's risk-sharing principles, where IMFI's share both profits and losses, help reduce the risk of over-indebtedness. By having a vested interest in the success of borrowers' businesses, IMFI's are incentivized to engage in prudent lending practices and conduct thorough assessments of borrowers' repayment capabilities.

Moreover, some conventional microfinance institutions prioritize their financial sustainability over social impact, leading to practices that may not always benefit the clients, such as high-interest rates and aggressive loan recovery methods. Islamic microfinance emphasizes ethical investing and social justice, ensuring that financial practices align with community welfare and ethical standards. The principles of Zakat (charitable giving) and Qard Hasan (benevolent loans) encourage IMFI's to prioritize social impact alongside financial sustainability.

Conventional microfinance often struggles with poor targeting and outreach, particularly in reaching the most marginalized and underserved populations. Many programs are concentrated in urban areas, leaving rural and remote communities underserved. Islamic microfinance institutions typically engage closely with local communities, gaining a better understanding of their specific needs and challenges. This local integration allows for more effective targeting and outreach, ensuring that underserved populations receive the necessary support.

Finally, conventional microfinance institutions may operate without a deep understanding of the local context, leading to lower acceptance and less effective interventions. Islamic microfinance institutions usually emphasize strong community integration, mutual support, and collective well-being, fostering trust and acceptance. This community-oriented approach enhances the effectiveness and receptivity of financial services.



## **2.1. The Islamic Microfinance Alternative**

Islamic microfinance as an alternative solution can significantly address the challenges faced by micro and small enterprises (MSEs) in OIC member countries by leveraging its principles and methodologies.

Islamic microfinance provides Sharia-compliant financial products that do not involve interest (riba), making them more accessible and acceptable to entrepreneurs in Muslim-majority countries. Products like Murabaha (cost-plus financing), Mudarabah (profit-sharing), Musharakah (joint venture) and Qard al-Hasan (benevolent/ zero-cost loans) offer alternative means of financing. These products supply MSEs with the necessary capital without the burden of high interest rates, and the risk-sharing nature of these contracts can make financial institutions more willing to lend.

Islamic microfinance institutions (IMFIs) often work closely with local communities and governments, aiding MSEs in navigating regulatory environments more efficiently. By providing tailored advice and support, IMFIs can assist small businesses in complying with regulations, reducing the bureaucratic burden. Furthermore, IMFIs can help MSEs access broader markets by offering financial products designed to support business growth and expansion. Trade financing solutions can help businesses engage in international trade, while micro-insurance products can mitigate risks associated with new market ventures. The community-based nature of many IMFIs can also facilitate networking opportunities and partnerships, enhancing market reach.

Operational challenges can be addressed through Islamic microfinance by offering solutions for infrastructure and technology upgrades. Leasing (Ijarah) and diminishing Musharakah can be used to acquire equipment and property, enabling MSEs to improve their operational capabilities without significant upfront costs. Additionally, IMFIs often provide non-financial services, such as training and capacity building, which can enhance the skills of entrepreneurs and their employees. This support helps MSEs attract and retain talent by improving their internal capabilities and fostering a more skilled workforce.

Islamic microfinance can also facilitate technological adoption by providing targeted financing for technology upgrades and innovations. Through tailored financial products and technical assistance, IMFIs can help MSEs integrate modern technologies into their operations, improving efficiency and competitiveness.

Thus, Islamic microfinance addresses the challenges faced by MSEs in OIC member countries by providing Sharia-compliant financial products, facilitating regulatory compliance, improving market access, supporting operational upgrades, enhancing human resources, and promoting technological adoption. Through these comprehensive support mechanisms, Islamic microfinance creates an enabling environment for MSEs to thrive and contribute to economic and social development.

## 3. Modes of Islamic Microfinance

Islamic finance in general and Islamic microfinance in particular is governed by several norms that essentially prohibit *riba*, *gharar* and other norms. It may be noted however, that these constraining norms do not constitute an obstacle in building sound microfinance products. On the contrary, the need for Shariah compliance has led to considerable research into product development. While the conventional system provides for simple interest-based deposits, donations and loans, the Islamic financial system comprises an array of instruments for mobilization of funds, financing and for risk management.<sup>2</sup>

### 3.1. Instruments for Mobilization of Funds

Instruments for mobilization of funds may be broadly divided into (1) charity that includes *zakah*, *sadaqa*, *awqaf*; gifts that include *hiba* and *tabarru*; (2) deposits that may take the form of *wadiyya*, *qard-hasan* and *mudaraba* and (3) equity that may take the form of classical *musharaka* or the modern stocks.

While *sadaqa*, *hiba* and *tabarru* have parallels in conventional microfinance, such as, donations or contributions, *zakah* and *awqaf* have a special place in the Islamic system and are governed by elaborate *fiqhi* rules. *Zakah* is one of the five pillars of Islam and is meant to finance the poorest of the poor. These sections of the society are unlikely to have positive-NPV projects in need of financing and hence, are “unbankable”. *Awqaf* creates and preserves long-term assets that generate income flows or indirectly help the process of production and creation of wealth. By targeting its benefits towards the poor, *awqaf* can play an important role in poverty alleviation. Though there has been significant improvement in management of *zakah* and *awqaf* in recent years, their role as vehicles of microfinance and poverty alleviation is grossly underestimated. Their growing popularity evidenced through establishment of many a *zakah* fund and *awqaf* fund is an indication of their vast potential in Muslim societies.

Deposits in the form of *wadiyya*, *qard hasan* and *mudaraba* have their parallel in savings, current and time deposits respectively and are a regular source of funds for Islamic microfinance institutions, especially those in South-East Asia. *Wadiyya* deposits attract gifts to compare favorably with returns available on interest-bearing deposits. *Qard*-based deposits do not provide any return and in some cases, involve a charge. *Mudaraba* deposits are based on profit-loss sharing with the depositor as *rabb-al-mal* and the microfinance institution as the *mudarib*. Available empirical evidence from Indonesia asserts that Islamic microfinance institutions have lagged far behind their conventional counterparts in raising funds through deposits. Clearly there is a need to redesign many of the deposit products by taking into account customer needs and preferences. Microfinance institutions also have the option of raising funds through participatory modes, such as, *musharaka* or modern equity.

<sup>2</sup> The section on Modes of Islamic Microfinance draws upon Obaidullah, Mohammed & Khan, Tariqullah. (2008). *Islamic Microfinance Development: Challenges and Initiatives*, IRTI-IDB, Pages 18-22

### 3.2. Instruments of Financing

Instruments of financing may be broadly divided into (1) participatory profit-loss-sharing (PLS) modes, such as, mudaraba and musharaka; (2) sale-based modes, such as, murabaha; (3) lease-based modes or ijara and (4) benevolent loans or qard with service charge.

Real-life experience shows that murabaha is preferred over mudaraba primarily because it eliminates the need for written records, often unavailable at the micro enterprise level or if available, the client may be unwilling to share them. Further, in case of murabaha a well-defined contract exists, with pre-defined amounts; a fixed contract creates a less complicated process and a lower implementation cost to the institution. A profit-sharing mudaraba arrangement however, generates high returns for the institution.

Unlike mainstream Islamic finance that does not treat qard-hasan as a financing mechanism, Islamic microfinance has found this mechanism to be a “pure and effective” way of financing the poor. Many Islamic microfinance programs are modeled solely using qard-hasan – both as an effective fund-raising and financing mechanism. Qard-hasan has a much stronger religious undertone than other “halal” mechanisms, being directly ordained by the holy Quran. Such programs popularly known as Bait-ul-Maals are administered often through mosques and Islamic centers resulting in low overheads, leading to low service charge. A combination of financing with Islamic teachings and oaths administered in mosques helps reduce defaults and delinquencies to the minimum.

### 3.3. Instruments of Risk Management

Instruments of risk management and insurance in Islamic microfinance are based on the concept of guarantee (kafala) and collateral (damanah). In case of financing individuals, guarantee is used as an alternative to collateral (e.g. kafala or guarantee by two persons is considered adequate by Pakistan-based Akhuwat) and as a tool to manage the risk of default and delinquency. As stated earlier, in case of financing groups; mutual guarantee is used by almost all microfinance institutions – both conventional and Islamic.

A relatively smaller number of Islamic microfinance institutions require collateral in the form of physical assets (e.g. the Indonesian BMTs).

The risks confronting individual and group borrowers translate into risk of default and delinquency for the MFI. One way to mitigate this on the part of the MFI is to insist that borrowers participate in a micro-takaful program. However, micro-takaful products are yet to appear in the market place. In the absence of micro-takaful products, real life projects seek to protect their members in a variety of ways that are informal and perhaps inefficient.

A Sanabel-CGAP-AFD survey showed that most Islamic Microfinance institutions provided only murabaha and qard hasan products, while acknowledging that there were institutions that have a wider spectrum of products. Murabaha alone accounts more than 56 percent of the portfolio of the surveyed MFIs, while qard hassan stands second (28 percent).

Although academics have often promoted Islamic microfinance venture capital modes of financing such as musharaka and mudaraba, practitioners have often reasoned that while these modes are theoretically ideal, they are not easy to implement. According to the survey, mudaraba and musharaka only accounts to around 7 percent of the total portfolio.

One reason for this is that without proper mitigation measures, mudaraba and musharaka modes of finance can pose Moral Hazard issues relating to business selection, profit declaration, and commitment of the beneficiary to make repayments. Since the profit of the MFI is directly correlated to the profits made by the beneficiary's business (with the real possibility of making a loss), the MFI may not have the ability to forecast and manage their risks. Mudaraba and musharaka should be implemented similar to how other equity or venture capital investments are made.

Firstly, the investor needs to conduct a feasibility study to ensure that the business preposition is viable as well as to be aware of the key success factors and risks involved in making the investment. Secondly, there should be a proper understanding between the investor and investee on their rights and obligations, all of which is spelled out in the investment agreement. Thirdly, there should be a proper financial control mechanism to ensure payments are made as intended and the operations of the business is monitored regularly. Last but not least, an exit strategy should be agreed between the investor and investee, with both parties working with the understanding that the investor wants to exit with a target profit margin that is to be achieved in a specific amount of time. However, if Islamic MFIs operate by giving individual financing only, it is unlikely that they will have the capacity to conduct due diligence and monitoring of their investments made to every individual client. Undertaking the process can only be feasible if the investment size is significantly large and towards a group of beneficiaries (e.g. cooperative, association, company etc.).

For Islamic MFIs to provide equity-oriented financing such as musharaka and mudaraba, they will need to: a) change their modus operandi to manage risks like a venture capital institution rather than a loan disbursing bank; and b) change their modus operandi to provide group level financing (to cooperatives, associations, companies, etc.) rather than individual level financing.



## 4. Models of Islamic Microfinance

The Islamic microfinance scene is now characterized by varied models, which may be broadly divided into two categories. First, one finds models that exist in both conventional and Islamic domains. The Islamic experiments are essentially replications of successful conventional ones with Shariah-compliant products replacing interest-bearing products. Second, there are models that are essentially indigenous and took shape as a benevolent response to the problem of poverty.

### 4.1. Overview of Islamic Replications of Conventional Models

**Joint-Liability-Groups (JLG):** More popularly known as the Grameen model, it has witnessed replications far and wide and also in the Islamic domain. The key features of this model are group financing and graduated financing. The notion of joint liability replaces collateral as a mechanism to mitigate risk of default and delinquency. Among the notable replications, the Rural Development Scheme of the Islami Bank Bangladesh stands out. It uses a micro-credit product based on bai-muajjal (deferred sale) that costs far less than comparable conventional products.

**Finance-Plus:** More popularly known as the BRAC model, it has witnessed replications in both conventional and Islamic domains. The model recognizes that micro-enterprise development and wealth creation in the micro-economy requires much more than provision of finance. It seeks to provide a comprehensive range of support to micro-entrepreneurs to ensure the success of their ventures. Among the notable Islamic replications, is the Bank Al-Usrah, a microfinance bank based in Sudan.

**Village-Banks:** The model involves an implementing agency that establishes individual member-based village banks and provides “external” capital for onward financing to individual members. A bank repaying in full is eligible for subsequent loans, with loan sizes linked to the performance of village bank members in accumulating savings. As a village bank accumulates sufficient capital internally, it graduates to become an autonomous and self-sustaining institution.

**Credit-Unions:** A credit union is based on the concept of mutuality. It is in the nature of a financial cooperative owned and controlled by its members. It mobilizes savings, provide loans for productive and provident purposes and have memberships which are generally based on some common bond. Credit unions or financial cooperatives are quite popular in Asia. Due to relatively lax regulatory framework applicable to cooperatives, such institutions have been established in countries like India, which otherwise restricts Islamic finance in mainstream banking and financial sector.

**ROSCAs:** A Rotating Savings and Credit Association or ROSCA is a group of individuals who agree to meet for a defined period in order to save and borrow together. Each member contributes the same amount to a common pool or pot at each meeting, and one member takes the whole sum once. As a result, each member is able to access a larger sum of money during the life of the ROSCA, and use it for whatever purpose she or he wishes. ROSCAs are simple and transparent (every transaction is seen by every member during the meetings and since no money has to be retained inside the group, no records have to be kept) and therefore, popular in communities with low levels of literacy and weak systems. A conventional ROSCA usually involves *riba* when the recipient of the pot is determined not by lot but sold to the lowest bidder. Islamic ROSCAs exist, but are rare.

**Pawnshops:** Pawnshops are traditional collateral-based mechanism for borrowing. The quantum of loan is tied to the value of the asset offered as collateral. While conventional pawning involves interest, Islamic pawnshops charge custodial fees for safekeeping of the collateral. Islamic pawnshops popularly exist in South East Asia.

## Good & Bad Practices with Islamic Replications of Conventional Models

Except for ROSCAs, the other models mentioned above are part of the formal financial system. Most of such programs use simple and transparent financing mechanisms and standardized procedures & documentation. These are also characterized by higher staff efficiency and professionalism. These seek to benefit from their accumulated wisdom and replicate best practices from conventional microfinance.

The Islamic replications of conventional microfinance unfortunately bring with them the weaknesses of the parent model. The strategy of retaining the overall model intact while substituting the interest-based products with Shariah-compliant ones like murabaha has major pitfalls as discussed earlier. In addition to break-down of conditions relating to sequencing of the contracts, thus pushing the MFI's gains beyond the boundaries of legitimacy, murabaha also implies lesser emphasis being accorded to economic viability of the micro-enterprises. Similar to conventional microfinance, such Shariah-compliant murabaha-centric microfinance involves high cost and hence, is not meant for the ultra-poor. It perpetuates debt-culture and strikes at the roots of family cohesion with its "women-only" approach.

## 4.2. Overview of Indigenous Islamic Models

**Qard Hasan Funds:** Qard Hasan Funds are operating in the Iranian financial sector for over three decades with their current number estimated at more than 6000 funds. These are essentially non-profit institutions in which members of a community set up a savings and loans society. Members deposit their savings with the fund (give qard to the fund) in order that other needy members may be extended a qard from this fund. In line with the rules of fiqh governing the contract of qard, members are free to withdraw some or all of their deposits if and when they want (or at short notice). As the members are known to each other, there is less room for default on loans. The operations of the society are run by volunteers, using some free office space. Other overheads, such as, costs for stamps, stationery, transport, communication and so on are covered, in some Qard Hasan Funds, through engagement of funds in business activities. In most of the others, the borrowers are charged the actual costs or less.

**Baitul-Mal-wa-al-Tamweels (BMTs):** Baitul Maal wat Tamweel (BMT) is an indigenous model of Islamic microfinance in Indonesia. Translated into English, the house of (charity) funds and (for-profit) financing is a financial cooperative. Conceptually, BMT is deemed to be inspired by the institution of Baitul Maal existing in early days of Islam. Its uniqueness is said to lie in the marriage of two distinct institutional models. The first is Bait-al-Maal or a pool of various kinds of Islamic charity funds, traditionally referred to as zakah-infaq-sadaqa-waqf funds (ziswaf).

The second is Bait-al- Tamweel or a pool of funds directed at profit-seeking financing using Shariah-compliant modes. The latter comprises funds in the form of founder equity, micro-savings and investment deposits. A more recent avatar of this institution is Baitul Maal wa al-Tamweel wa al-Tamin (BMTT) with addition of micro insurance (tamin) as a third line of activity.<sup>3</sup>

**Zakah & Sadaqa-Based Institutions:** Rooted in Islamic charity, such institutions have existed since the advent of Islam and are found in all Muslim societies. However, these lie mostly in the informal sector with the exception of a few recent initiatives that have graduated as distinct models, are part of the mainstream and are also being replicated elsewhere. The first is the economic empowerment model developed and practiced by Dompot Dhuafa in Indonesia<sup>4</sup>. The model involves intense involvement and participation by the organization, especially in the initial stages of intervention in formation of groups and provision of technical, managerial and (low-cost) financial services. It also involves a high degree of community participation, development of local cadres and creation of a local member-based organization to provide sustained assistance in meeting the challenge of poverty. A second model that has caught the attention of many is Akhuwat in Pakistan. This model aims to institutionalize charity, good giving and voluntarism and thereby, provide cost-free financial services to the poor.

### Good & Bad Practices with Indigenous Islamic Models

A very strong positive with Dompot Dhuafa and Akhuwat models is their ability to demonstrate that charity can be a dependable and sustainable source of raising funds. Additionally the institutionalization of voluntarism along with other creative strategies has the effect of drastically cutting down operational costs. Thus, microfinance is now provided at low or zero costs, making it affordable to the poorest of the poor. Further the high degree of involvement of local communities as in case of the Dompot Dhuafa model leads to true and sustainable economic and socio-political empowerment.

While the above initiatives have distinct elements of superiority over the many conventional high-cost microfinance providers, the fact remains that most other indigenous institutions do not share in their dynamism, professionalism and good governance. A large majority of charity-based Islamic institutions operate in the informal sector. Many of these institutions are characterized by lack of transparency, poor accountability and governance structures, low operational efficiency and consequently, high operational costs. They report practices that provide encouragement to continued dependency on charity. Further, most of them have poor linkage with the formal financial system and operate in a regulatory vacuum. A case in point is the Indonesian BMT that does not have a uniform legal status. Most small BMTs function as informal entities without any distinct legal form. Most of medium and large BMTs are registered as Shariah Cooperatives (KJKS) with the Ministry of Cooperatives and SME. Since the rationale underlying the creation of a cooperative is to provide services to its members, the law of cooperatives is not very demanding in terms of accountability, transparency and governance of the institutions and many are able to evade compliance on account of lax supervision.

3 For a comprehensive discussion on the Indonesian BMTs, see Obaidullah, Mohammed & Shirazi, Nasim & Muljawan, Dadang & Izhar, Hylmun. (2014) Islamic Social Finance Report 2014, IRTI-IDB, page 51-54

4 For a detailed case study on this model, see Obaidullah, Mohammed & Shirazi, Nasim & Muljawan, Dadang & Izhar, Hylmun. (2014) Islamic Social Finance Report 2014, pages 34-36

## 4.3. Combining Philanthropy with Profits

Islamic replications of conventional microfinance as well as the indigenous models are characterized by unique positives and negatives. The former involves a market-driven for-profit approach while the latter is rooted in philanthropy and benevolence. Can these two distinct approaches be combined in a composite model? Can such a composite model retain the efficiency and transparency of the former and the low-cost feature of the latter? Theoretically of course, this is a possibility. In such a model, zakat and charity funds may be applied for provision for basic consumption needs of the poor. Such funds may also be applied for enhancement of skills and provision of other services that the poor need. The organization also raises investment funds that are applied for provision of Shariah-compliant microfinance on a for-profit basis. Indeed, a few recent experiments have important lessons. A case in point is the Deprived Families Economic Empowerment (DEEP) project operational in Palestine. The project envisages creation of an endowment fund in the framework of waqf that could provide for a sustainable source funds for provision of safety net. There are also some excellent examples of composite or mixed models of Islamic microfinance from Sudan undertaken by IRADA Microfinance reported in relevant literature.<sup>5</sup>

Mixed models come with their pros and cons. On the positive side, these models could combine access, sustainability and affordability considerations, combine mission-based approach with market-based instruments resulting in use of best-fit instruments and modes and therefore, could go for flexible pricing and product design. On the flip side, however, such models may involve serious problems due to conflicting organizational culture and conflicting policy and regulatory framework. As has been observed in case Indonesian BMTs, most of them have over time, preferred to do away with their philanthropic aspirations (as house of charity) and concentrated on for-profit murabaha financing (as house of financing). The twin-track nature of the model seems to have been abandoned for all practical purpose. Last, but not the least, combining Islamic charity, especially zakat collection and application with for-profit financing involves serious transparency and governance issues associated with commingling of funds. A major condition with raising zakat funds requires such funds to be directly channeled into the hands of the eligible beneficiaries or the poor and cannot simply be credited to the organization capital. In the absence of relevant accounting standards and regulatory norms to ensure the above, the Shariah scholars have generally discouraged the use of zakat funds in economic empowerment initiatives preferring the direct channels of distribution for consumption purposes instead.

It appears that successful philanthropy and cooperation-based models of Islamic microfinance are largely micro-level interventions without similar initiatives at the meso or macro levels. The operationalization and mainstreaming of such models though clearly desirable, face serious challenges. At a meso level, there is an urgent need for developing relevant accounting and governance standards for all the key modes, e.g. zakat, sadaqa, waqf, qard and kafala. There is also a need to develop quality education and training programs for the sector. Further, most Muslim societies have archaic, if at all, regulatory frameworks for zakat, waqf and other Islamic nor-for-profit institutions. An enabling macro-economic environment is a sine qua non for development of such models of intervention.

<sup>5</sup> For several case studies undertaken using composite models, see Obaidullah, Mohammed & Shirazi, Nasim. (2015). Islamic Social Finance Report 2015, Pages 143-149



## 5. Conclusion

Micro and small enterprises (MSEs) are vital for the economic and social progress of OIC member countries, driving job creation, economic diversification, and innovation. They help reduce unemployment, alleviate poverty, and foster community development while empowering marginalized groups and utilizing local resources.

MSEs face challenges like limited finance access and regulatory hurdles, but Islamic microfinance can address these issues by offering Sharia-compliant financial products. These products, including Murabaha and Qard al-Hasan, along with support services, can enhance MSEs' growth and sustainability, thereby contributing to inclusive and sustainable development.

Islamic microfinance offers several advantages over conventional microfinance, especially for Muslim communities. Unlike conventional microfinance, which relies on interest and often leads to financial strain, Islamic microfinance adheres to Shariah principles by avoiding interest through methods like Murabaha, Mudarabah, and Qard al-Hasan. These methods not only make financing more accessible but also reduce debt accumulation.

Islamic microfinance adheres to principles prohibiting interest (riba) and uncertainty (gharar), employing a range of Shariah-compliant instruments for mobilizing and financing. Funding sources include charity (Zakah, Sadaqa), gifts (Hiba), deposits (Wadiyya, Qard-hasan, Mudaraba), and equity (Musharaka). Financing methods involve participatory profit-loss-sharing (Mudaraba, Musharaka), sale-based (Murabaha), lease-based (Ijara), and benevolent loans (Qard-hasan). Risk management often uses guarantees or collateral, while micro-Takaful (Islamic insurance) is emerging.

Islamic microfinance models fall into two main categories: adaptations of conventional models and indigenous Islamic models. Adaptations include Joint-Liability Groups (JLGs), Finance-Plus models, Village Banks, Credit Unions, ROSCAs, and Islamic pawnshops, each modified to comply with Shariah. While these models incorporate efficiencies from conventional finance, they also inherit some drawbacks, such as high costs in murabaha-based models.

Indigenous models, such as Qard Hasan Funds, Baitul Maal wa al-Tamweel (BMTs), and Zakah and Sadaqa-Based Institutions, leverage community-based charity and profit-seeking financing. They reduce costs and foster local involvement but face challenges in governance and transparency. Combining philanthropy with profit-based finance, as seen in projects like DEEP and Indonesian BMTs, aims to merge strengths but requires robust regulatory and accounting standards to address conflicts and ensure compliance.

Islamic microfinance essentially involves a marriage between Islamic finance and conventional microfinance. It is therefore interesting to examine how the application of Shariah norms to conventional microfinance leads to a better solution. Islamic microfinance institutions (IMFIs) provide a holistic approach that includes financial literacy, business development support, and diverse financial products such as Takaful and savings accounts. This contrasts with conventional microfinance's narrow focus on micro-loans and lack of additional support services.

Additionally, Islamic microfinance offers more flexible repayment terms and risk-sharing principles, which support sustainable business growth and reduce default rates. It emphasizes ethical investing and community welfare, contrasting with conventional practices that may prioritize financial returns over social impact. It tends to have a stronger community focus and better outreach to marginalized populations, addressing local needs more effectively.

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## Islamic Finance and Community Empowerment: A Strategic Vision for the Global Ummah

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### 1. Introduction

The current landscape of Islamic finance is dominated by institutions that are Shariah-compatible but deeply embedded within the framework of global financial capitalism. These Islamic Financial Institutions (IFIs) primarily focus on maximizing profits for their shareholders while adhering to Islamic legal requirements. This approach aligns with the goal of wealth accumulation of capitalist societies, but not with the broader, transformative goals of an Islamic society, which emphasize social justice, community welfare, and the equitable distribution of wealth.

Given the deep entrenchment of IFIs within the global capitalist system, radically altering their goals to fully align with the ethical and social objectives of Islam would be extremely difficult. Therefore, this paper proposes a transitional strategy that involves two key components: First, regulations should require IFIs to live up the “Islamic” in their names by adopting a dual bottom line. Both social service and profit should be transparently reported in their annual disclosures, and service should be prioritized over profits. Second, we propose the creation of a new type of masjid-based community service organization—Munazzamatul Khidmat ul Jamaa’ah (MKJs). These MKJs would be established purely on Islamic ideals, focusing on community well-being, mutual aid, and the service of the Ummah. Since IFIs are not institutionally equipped to provide social services, they would finance MKJs to help achieve these social goals.

This transitional strategy aims to gradually expand the responsibilities of IFIs beyond profit-seeking to include meaningful contributions to social welfare, thus guiding them away from their current role in supporting capitalism and towards serving the broader goals of an Islamic society. Through this complementary structure, where MKJs focus on community service and IFIs support them financially, we can work towards an Islamic economy that truly reflects the values and principles of Islam.

The paper is structured as follows: The next sections explore the contrasting goals of capitalist and Islamic societies, highlighting the fundamental differences that necessitate this new approach. Understanding these differences clarifies why it is necessary to create MKJs and shift IFIs towards a dual bottom line. Following this, we discuss the paradigm shift required to implement this strategy, outlining the practical steps for establishing MKJs and transforming the role of IFIs. The final sections focus on two specific proposals: the vision of MKJs and how they complement IFIs, and the establishment of a common currency for the Ummah. These proposals demonstrate how MKJs, supported by a reoriented IFI sector, can play a pivotal role in building an Islamic economy that truly reflects the values and principles of Islam.

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## 2. Goals of Capitalism

### Historical Background:

The emergence of capitalism, driven by the Industrial Revolution, led to profound social, economic, and political transformations designed to manage and perpetuate the unprecedented production capabilities of industrial economies. As Polanyi (1944) describes in his analysis of the “Great Transformation,” European societies were restructured to accommodate this excess production. Critical to human lives and ways of thinking was the creation of a labor market. In this new market, human lives were commodified, reducing individuals to “human resources” and stripping them of their cultural and social contexts. This created anonymous and interchangeable individuals, driven solely by the pursuit of pleasure and wealth. When human lives are for sale, money naturally becomes the most valued goal. The resulting economic, political, social, and environmental changes embedded these capitalist values deeply into society. Some of the critical characteristics of capitalist society are discussed below.

### The Nation-State vs the Ummah:

As individualism took root, the need for a new form of collective identity emerged. The nation-state became the dominant imagined community, uniting people within defined geographic and political boundaries; see Arnold (1983). However, this sense of unity often came at the expense of others, fostering division and conflict with those outside these borders. Nationalism, a byproduct of the nation-state, has frequently led to wars fueled by the need to control resources and maintain economic power. Financial institutions have supported these nationalist goals, often funding wars and conflicts that serve the interests of the wealthy and powerful. The nation-state system was deliberately created to divide the Ummah as part of a broader “divide and rule” strategy by colonial powers, as discussed by Fromkin (1989). In response, this paper proposes a counter-strategy that promotes thinking beyond the nation-state, focusing on the larger unity of the Ummah and, ultimately, all of humanity.

### Consumption: Excess vs Moderation:

Spreading the disease of overconsumption is essential to the survival of capitalism, which is driven by excess production (de Graaf et al., 2005). This relentless pursuit of economic growth has led to the commodification of virtually every aspect of life, including land, labor, and money. Financial institutions, motivated by profit maximization, perpetuate this cycle, prioritizing short-term gains over long-term sustainability. The result is overconsumption, environmental degradation, and the depletion of natural resources. To counter this, we must promote simple lifestyles and reduce excess production and consumption, freeing our lives to pursue the higher spiritual and social goals of an Islamic society.



### **Adversarial vs Cooperative Finance:**

Capitalist economies are deeply reliant on debt as a means of fueling growth, leading to widespread debt dependency among individuals, businesses, and governments. Interest-based financial institutions thrive on this system, profiting from the adversarial nature of loans, where the lender benefits at the expense of the borrower. Mian and Sufi (2014) document how the Global Financial Crisis was caused by this dynamic. Interest-based debt not only exacerbates inequality but also serves as a tool for political control, as highlighted by Michael Hudson (2003) in *Super Imperialism*. By indebting nations, powerful financial entities can exert influence over economic policies, effectively compromising the sovereignty of debtor nations. In contrast, Islamic financial transactions create aligned interests for all parties leading to cooperative, instead of adversarial relationships.

### **Increasing Inequality vs Economic Justice:**

The capitalist system tends to concentrate wealth in the hands of a few, exacerbating socioeconomic disparities. Financial institutions facilitate the accumulation of capital among the wealthy while offering limited support to those with fewer resources. This results in a society marked by stark inequality, where the rich grow richer, and the poor face increasing economic insecurity – see Piketty (2014). Islamic teachings insist on the circulation of wealth, and the rights of the poor in the wealth of the rich, and provide institutions to counter capitalist tendencies. For the contrasting conceptions of economic justice in Islam and Capitalism, see Javaid and Hassan (2013).

### **Environmental Degradation and the Climate Crisis:**

The relentless pursuit of economic growth in capitalist societies has led to severe environmental consequences, including deforestation, loss of biodiversity, pollution, and climate change. The drive for short-term profits often results in the exploitation of natural resources without regard for long-term sustainability; see Klein (2015). For the contrast with Islamic views, see Abul Matin (2010). Briefly, Islam views planetary resources as a trust (Amanah), with humans serving as guardians and protectors of this trust. The principle of sustainable stewardship, embodied in the prohibition of *Israf* (wastefulness) and *Tabzeer* (extravagance), requires that we manage resources responsibly. MKJs would prioritize sustainable practices and environmental protection, ensuring that economic activities align with the ethical principles of Islam.

All institutions of a society are designed to further collective goals of that society. Financial institutions are especially important enablers in this regard. From this list of the opposition between goals of Capitalist societies and Islam, it should be clear that shariah compatible IFIs, which aim for capitalist goals using Islamically permissible means, cannot help to build Islamic societies. Before we provide more details about a proposal which has the potential to do so, we will pause to sketch the collective goals of Islamic societies.

### 3. Contrasting Goals of Islamic Societies:

In contrast to the capitalist system, which is driven by individualism, profit maximization, and relentless economic growth, an Islamic society is guided by principles that emphasize community welfare, social justice, and the responsible stewardship of resources. A detailed discussion of the contrasts is provided in Zaman (2023). For the purposes of this article, some of the key goals of an Islamic society that shape its economic and social institutions are listed below:

#### Community over Individualism:

An Islamic society prioritizes the welfare of the community over individual gain, emphasizing collective responsibility through the concept of Fard Kifaya (collective obligation). This principle fosters a sense of solidarity and mutual support, where the well-being of each individual is inherently linked to the welfare of the entire community. The unity of the Ummah, which transcends national boundaries and focuses on collective welfare, is central to Islamic teachings. The Qur'an highlights this unity as a divine gift that binds hearts together in love (Qur'an 3:103). This unity contrasts sharply with the divisive nature of modern nation-states, which often promote individualism and competition. Islamic financial institutions are thus designed to serve the collective welfare of the Ummah, rather than merely generating profit. By overcoming the artificial divisions imposed by nation-states and promoting cooperation across the Muslim world, the Ummah can fulfill its role as a cohesive community dedicated to the welfare of all its members. This holistic approach, as highlighted by Nadwi (2024) and Zaman (2023), is one of the unique contributions of Islamic civilization to humanity.

#### Social Justice and Equitable Distribution of Wealth:

The underlying ethos of Islam is generosity, compassion, and a sense of unity – being one body. Those who have beyond their needs are urged to give the excess to those who have less, not to indulge in luxuries or accumulate even more wealth. The poor have a right in the wealth of the rich, and society has the collective responsibility to take care of the needs of all its members. The Islamic notion that wealth ultimately belongs to Allah, and we are only trustees, has substantial ramifications for how wealth is spent and invested. Once the believer internalizes their role as a trustee, they become responsible for safeguarding the trust, understanding the terms of the trust to determine who has rights over the assets, and then distributing the assets to the deserving parties. The terms of the trust have been clearly articulated in the Qur'an and Sunnah, which include rules of inheritance, zakah, discouraging miserliness and hoarding of wealth, encouraging generosity and circulating wealth in society, promoting moderation in spending, and principles of investing. The Qur'an beautifully captures the essence of this generosity: "The example of those who spend their wealth in the way of Allah is like a seed [of grain] that sprouts seven ears; in every ear, there are a hundred grains. Allah multiplies [His reward] for whom He wills. And Allah is all-Encompassing and Knowing" (Qur'an 2:261).

### **Responsible Stewardship of Resources (Khilafah):**

As Ibrahim Abdul-Matin writes in Green Deen, “Islam teaches that we are all stewards of the Earth and will be held accountable for how we treat it. Our responsibility is to protect the planet and ensure its resources are available for future generations” (Abdul-Matin, 2010). This principle of Khilafah requires that resources be used sustainably and responsibly, with consideration for future generations. In contrast to capitalism’s exploitation of resources for short-term profit, Islamic societies view natural resources as a trust from God that must be preserved for the common good. This leads to the view that profits from natural resources like oil and mineral must be used for public welfare, and cannot be privatized. This perspective has the potential to radically transform economic and environmental policies, ensuring they align with the ethical and spiritual values of Islam.

By focusing on these key goals, we can develop financial institutions and societal structures that not only comply with Islamic law but also reflect the deeper ethical and social values of Islam.

### **4. Establishing Khidmat ul Jamaa’ah Organizations (MKJs)**

Masjid-based service organizations in diverse forms, already provide a wide range of social services around the globe. Our proposal involves making these central to the strategy for empowering communities, linking them across the globe, and providing financial backing by the IFIs to lend additional strength. Systematized in this way, Munazzamatul Khidmatul Jamaa’ah Organizations (MKJs) have the potential to transform our approach to Islamic finance and community service by aligning practices with the ethical and social principles of Islam. While IFIs have traditionally focused on profit maximization within the global financial framework, embracing a dual bottom line—where service to the Ummah complements financial profitability—presents a significant opportunity for these institutions. MKJs are well-positioned to deliver on the social service aspect of this dual bottom line, enabling IFIs to meet their broader responsibilities. The financial support of IFIs will, in turn, allow MKJs to operate on a larger scale, extending their reach and impact.

### **Leveraging Existing Infrastructure for Synergistic Growth:**

The widespread network of masajid across the Muslim world provides a solid foundation for establishing and operating MKJs. These masajid, already integral to community life, often have financial committees managing mosque accounts and operations. Expanding these roles to include the responsibilities of a MKJ is a natural progression, making the transition to this new model of Islamic finance and community service both feasible and efficient. Each MKJ would be tasked with addressing the basic needs within its neighborhood, from ensuring educational opportunities for children to providing relevant skills training for adults. Through their financial backing, IFIs can empower MKJs to meet these needs effectively, ensuring that the social services bottom line is robustly supported. The potential of this model is illustrated by the amazing journey of Akhuwat Microfinance, narrated in Saqib (2023). Starting from humble beginnings, providing zero interest micro loans for small personal businesses in masjid-based settings, it has grown to the largest Microfinance institution in Pakistan, providing billions of rupee loans to millions of people.

### **Organizational Structure and Coordination of MKJs:**

MKJs will be organized around clusters of masajid, forming networks of interconnected communities that support each other. This structure allows each cluster to strive for self-sufficiency by utilizing local resources to meet community needs. In cases of shortfalls, IFIs can step in to provide complementary support, such as zero-interest loans (Qarz-e-Hasana) or other forms of financial or technical assistance. Moreover, IFIs can facilitate coordination across MKJs, enabling the transfer of surpluses from one area to address deficits in another. This ensures that all economic activities are aligned with Islamic principles, promoting long-term social benefits rather than focusing solely on short-term financial gains.

### **Rural-Urban Trade:**

One of the most promising aspects of the MKJ model is its potential to link city-based MKJs with rural counterparts, creating mutually beneficial exchanges of goods and services. Rural MKJs could supply agricultural products to urban communities, while city-based MKJs could provide manufactured goods or services in return. By bypassing traditional market exchanges, this barter system allows rural producers to receive fairer prices by cutting out intermediaries, while urban communities benefit from lower costs and higher-quality products. IFIs, with their financial expertise, can facilitate these exchanges, ensuring that trade is conducted fairly and sustainably, benefiting all parties involved.

### **International Trade:**

Moreover, the model can extend beyond national borders to facilitate international trade within the Ummah. Historically, national efforts to enhance trade among Muslim countries have been limited by global trading structures, financial systems, and the hegemony of the dollar. Given the failure of government-level initiatives for cooperation, private efforts through MKJs, supported by IFIs, could play a crucial role in fostering such trade. By knitting together diverse, already existing initiatives, IFIs can strengthen these fledgling efforts, providing the financial infrastructure and innovative techniques necessary for their success. This approach would reduce dependency on traditional market economies and foster greater economic independence for the Ummah.

### **Safeguarding Against Elite Capture:**

Experiences in organizing local communities leads to the necessity of recognizing and avoiding a number of risks (Sajjad, 2018). One of these is co-opting of the agenda by external sources (like the IFIs, Government, or large donors). More insidious is the risks of local elite capture, where influential individuals in the neighborhood dominate decision-making for personal gain. To mitigate these risks, MKJs should incorporate safeguards into their organizational structure. Decision-making bodies within MKJs should include not only members of the local community but also representatives from IFIs and individuals from lower-income groups. This inclusive approach ensures that decisions are made in the best interests of the entire community, preventing the concentration of power and ensuring that the benefits of MKJs are distributed equitably.



## **5. Breaking Free from Economic Dependency: A Multi-Faceted Strategy for the Ummah**

The conventional economic framework operates on two primary levels: the individual and the nation-state. These are the basic units of analysis in micro and macroeconomics, deeply rooted in capitalist ideologies that prioritize individualism and nationalism. However, these concepts are fundamentally at odds with the collective and universalistic principles of Islam. For an Islamic society, the primary units of action are local communities, where Khidmat ul Jamaa'ah Organizations (MKJs) will operate, and the global Ummah, which transcends national boundaries and political divisions. Islamic Financial Institutions (IFIs) with dual bottom lines can play a critical role in linking MKJs around the globe, creating unity within the Ummah, while bypassing the nation-state structures that often serve to divide it.

### **Escaping Debt Dependency and Dollar Hegemony:**

Michael Hudson's (2003) analysis in *\*Super Imperialism\** sheds light on how the global financial system, particularly through the mechanisms of debt and dollar hegemony, has been used as a tool of economic control and dependency. He argues that foreign loans, often denominated in dollars, serve as instruments of economic enslavement, forcing debtor nations into a cycle of dependency that limits their sovereignty and policy choices. This insight is crucial for understanding the challenges facing the Ummah and the need for a multi-faceted strategy to break free from these constraints.

One of the most effective ways to escape this cycle is to reduce reliance on external financing and develop alternative financial structures that are independent of the global capitalist system. A critical step in this process is achieving self-sufficiency in essential areas such as energy and food production. Hudson notes that global financial powers often work to prevent agricultural sufficiency in developing nations, ensuring their continued dependence on imported goods and foreign currency. For the Ummah, prioritizing energy and food self-sufficiency is vital to breaking free from this dependency. Since many nation-states are entrapped in chains of debt and prevented from achieving self-sufficiency at a national level, these goals could be pursued through local communities empowered by MKJs, with the support of IFIs committed to the dual bottom line of financial sustainability and social service.

### **Developing a Common Currency: A Private and Transnational Initiative:**

To further circumvent the constraints imposed by nation-states, the development of a common currency for the Ummah could proceed as a private initiative, spearheaded by a network of MKJs and IFIs that are committed to Islamic principles and economic self-sufficiency. This currency could initially be used for transactions among these institutions, facilitating trade and financial exchanges within the Ummah without the need for external currencies like the US Dollar or the Euro.

Such a currency would not only help to break the cycle of dependency on Western financial systems but also empower the Ummah by creating a new economic order based on Islamic values. The currency could be backed by a basket of assets, including commodities like gold, agricultural products, and even community currencies, to ensure its stability and value. This would help protect the currency from the inflationary pressures and speculative attacks that often plague fiat currencies.

The success of this initiative would rely on the ability of MKJs and IFIs to build trust and cooperation across borders, creating a network of financial institutions that are truly independent of the global capitalist system. By leveraging their collective resources, these institutions could establish a resilient economic infrastructure that supports the needs of the Ummah, while reducing vulnerability to external economic pressures.

### **Leveraging Private Sector Power: Learning from Transnational Corporations:**

In pursuing this strategy, it is instructive to consider the example of transnational corporations (TNCs), which have successfully operated across national borders and, in many cases, wield more power and influence than governments. These corporations have built global networks of production, distribution, and finance that operate independently of any single nation-state, demonstrating that it is possible to create powerful economic entities that transcend national boundaries.

Similarly, MKJs and IFIs can leverage their collective power to create a transnational financial system that serves the needs of the Ummah. By pooling resources, sharing expertise, and collaborating on large-scale projects, these institutions can build an economic infrastructure that is resilient to external shocks and less vulnerable to the pressures of the global capitalist system.

### **Moving Forward: Building Economic Sovereignty for the Ummah:**

The establishment of a common currency, along with the broader strategy of linking MKJs across the Ummah, represents a bold step toward building economic sovereignty and reducing dependency on external powers. By operating outside the traditional nation-state framework and focusing on the collective needs of the Ummah, this approach can help to create a more just and equitable economic system that aligns with the values of Islam.

In conclusion, breaking free from economic dependency requires a multi-faceted strategy that combines the creation of a common currency with the development of a transnational network of MKJs and IFIs. By focusing on the needs of the Ummah and operating independently of the nation-state system, this approach can help to build a more self-sufficient and resilient economy that reflects the values and principles of Islam.

## 6. Concluding Remarks

In this paper, we have explored the transformative potential of Khidmat ul Jamaa'ah Organizations (MKJs) in reshaping Islamic finance and community service. The MKJ model, deeply rooted in Islamic principles, offers a robust framework for addressing the social, economic, and environmental challenges faced by the Ummah today. By leveraging the existing infrastructure of masajid and focusing on collective responsibilities over individual rights, MKJs can foster a society that truly reflects the values of Islam—emphasizing social justice, community welfare, and sustainable development.

The proposed strategy of linking MKJs with Islamic Financial Institutions (IFIs) that adopt a dual bottom line approach is crucial for achieving this vision. IFIs, by prioritizing service to the Ummah alongside profits, can provide the necessary financial support to MKJs, enabling them to meet the diverse needs of their communities. This complementary structure, where MKJs focus on community service and IFIs support them financially, represents a significant shift away from the capitalist model of finance and towards an Islamic economy that prioritizes the welfare of all.

Furthermore, the initiative to develop a common currency for the Ummah, along with a transnational network of MKJs and IFIs, holds the potential to break free from the economic dependency imposed by the global financial system. By creating alternative financial structures that are independent of the existing capitalist framework, the Ummah can move towards economic sovereignty, reducing vulnerability to external pressures and building a more just and resilient economic order.

However, this transition will not be without challenges. The entrenched interests of the global financial system and the inherent complexities of establishing new economic structures will require perseverance, innovation, and unity within the Ummah. Yet, with a clear vision, strong leadership, and a commitment to Islamic principles, these obstacles can be overcome.

In conclusion, the journey towards an Islamic economy that embodies the principles of social justice, environmental stewardship, and communal welfare is both necessary and achievable. By implementing the strategies outlined in this paper, the Ummah can take significant steps towards creating a society that not only complies with Islamic law but also fulfills its ethical and spiritual aspirations. This vision, grounded in the teachings of Islam, offers hope for a future where peace, justice, and prosperity are the hallmarks of the global Muslim community.

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## Leveraging Islamic Finance's Role in Financing Infrastructure Investments in the OIC Member Countries

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### Abstract

Infrastructure development can play a crucial role in economic growth and societal well-being. Within the realm of Islamic economics and finance, critical factors include (i) business models that align with sector-specific realities; (ii) the assurance of fairness through Islamic finance contracts, and (iii) the efficient mobilization of resources to facilitate scaling up without adverse repercussions. This paper delves into these aspects, drawing from the Islamic creed. The field of Islamic economics and finance offers embedded features that can contribute to sustainable infrastructure development. By categorizing infrastructure sectors and defining sustainability parameters, insights into how Islamic approaches can enhance infrastructure projects are provided. From the Islamic point of view, infrastructure sectors can be categorized as economic infrastructure (transport, ICT, and energy), social infrastructure (solid waste, water, health, and education) and accountability infrastructure (Hisbah). The proper Islamic business model for social infrastructure is the Waqf model. Waqf assets can ideally be developed through the utilization of Istisna Contract, while resources can be effectively mobilized via the Cash Waqf Fund and Cash Waqf Sukuk. In contrast, economic infrastructure requires distinct business models, financing contracts, and resource mobilization methods. For transport and ICT first-mile infrastructure, Islamic Public-Private Partnership (PPP) can ensure equitability. While Istisna is suitable for transport infrastructure, the realities of the ICT sector favor Murabaha contract. Asset-backed Sukuk are well-suited for mobilizing resources for transport infrastructure investment, while two-step Murabaha and Mudaraba are effective for resource mobilization in ICT Murabaha sales. In the context of the energy sector, the innovative Distributed Renewables for Energy Access (DREA) system, coupled with a crowd funding platform, appears as the optimal business model and resource mobilization approach, aligning with the predefined sustainability parameters. Economic and social infrastructure assets should better be developed by Multilateral Development Banks' resources and procurement policies.

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## 1. Introduction

At the conclusion of his tenure from 1968 to 1981 as the 5th President of the World Bank Group, Robert McNamara expressed the following sentiment:<sup>2</sup>

‘The World Bank – born out of the ruins of World War II – has grown into one of the most constructive instruments of human aspiration and progress. And yet it has only barely begun to develop its full potential for service and assistance. There is so much more to do, so much more it ought to do to assist those who need its help. Each one of us here can help make that happen. And how can we begin? We must begin—as the founders of this great institution began—with vision. With clear, strong, bold vision.’

In his final address as President of the World Bank, Robert McNamara hinted dissatisfaction with the infrastructure-centric approach to achieving economic growth, poverty reduction, and addressing inequality. During his tenure, the Bank’s commitments (not disbursements) surged from approximately US\$1 billion annually in 1968 to over US\$13 billion in fiscal year 1981. However, the assumption that scaling up infrastructure investment alone would effectively resolve economic and social challenges remains unjustified in light of historical realities. While infrastructure investment has also been touted as a viable solution within the framework of the Sustainable Development Goals (SDGs), past failures underscore the need for a more nuanced approach. McNamara’s prominence in discussions about infrastructure investment is not coincidental; many of the development approaches related to infrastructure, such as “adjustment lending” (as opposed to project-by-project financing), were developed during his leadership. The successful post-World War II reconstruction of Europe through economic infrastructure projects exemplifies the potential benefits of such investments. McNamara’s tenure also emphasized social infrastructure, particularly in education and health. However, merely allocating additional funds to economic and social infrastructure projects or relying on policy-oriented lending to intervene accountability infrastructure in later stages has proven insufficient. Despite efforts to scale up infrastructure development through concessional loans or adherence to the Washington Consensus, involving the private sector to fine-tune the business model, the world remains in an unpleasant state in 2024. Clearly, a more comprehensive and multifaceted approach is necessary to address the complex challenges we face today.

Infrastructure development, often funded through long-term debt arrangements spanning approximately 20 years, remains a prevailing strategy. Despite its popularity, this approach raises concerns about debt sustainability. Rather than addressing fundamental issues related to moral hazard and adverse selection inherent in the existing business model, efforts continue to perpetuate this trajectory. Infrastructure investment serves as a powerful tool for politicians seeking popular backing. When project assets deliver economic and social services within their term of office, they gain public support. However, the repayment timeline often extends beyond their tenure, creating challenges for successors.

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2 Accounts from Robert McNamara: The McNamara years at the World Bank (English). Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/850631468336712540/The-McNamara-years-at-the-World-Bank> and “Lafourcade, Olivier; Christoffersen, Leif E.; Ljungh, Anders E. E.; Burmester, Sven; Koch-Weser, Caio K.; Steckhan, Rainer B. 2021. Robert S. McNamara at the World Bank: In Retrospect. Development Reflections. © World Bank, Washington, DC. <http://hdl.handle.net/10986/35898>

Beyond service delivery, infrastructure projects generate job opportunities, further endearing them to the public. Introducing foreign exchange loans into a country bolsters the balance of payments and supports the gross FX reserves held by the Central Bank. This influx can potentially appreciate the local currency, benefiting certain segments of the population. For instance, increased non-tradable prices, such as real estate, contribute to wealth of some locals and opportunities arise for importing tradables like luxury automobiles (Gundogdu, 2023). Infrastructure investment correlates positively with economic development in the short term (Haidar et al., 2012). Unfortunately, the positive relationship between infrastructure investment and economic development does not persist over the long term. Income inequality tends to worsen as time elapses (Chatterjee and Tarkovsky, 2012). What appears beautiful in the short term often reveals its flaws in the long term. Policymakers must grapple with these consequences, considering the interests of future generations. Project undertakers and financial institutions engage in lucrative opportunities, often backed by government guarantees. Multilateral Development Banks (MDBs) ensure disbursement for contractors, but this arrangement shifts liability to posterity while benefiting incumbents. In summary, balancing the allure of short-term gains with the enduring challenges of long-term consequences remains a critical task. Addressing debt sustainability, moral hazards, and adverse selection requires a more holistic approach—one that transcends political cycles and safeguards the interests of both present and future generations.

Despite widespread claims, infrastructure investment is often hailed as a panacea for multifaceted challenges. The prevailing assumption posits that such investment fuels economic growth, which, in turn, alleviates poverty. However, empirical evidence reveals a more nuanced picture—one where the relationship between infrastructure investment and poverty reduction is far from straightforward. Numerous studies demonstrate a positive correlation between infrastructure investment and economic growth (Luo and Xu, 2018). Yet, caution is warranted. Correlations can be deceptive, and causality may not always flow in the expected direction. Infrastructure investment and economic growth may exhibit a simultaneity effect, complicating causal inference. The case of Japan's ambitious bridge-building spree during the 1990s—now known as the “lost decade”—illustrates this complexity (Woetzel and Pohl, 2014). While additional bridges generated short-term profits and employment, they also burdened the nation with long-term debt. A similar positive correlation reported by some between infrastructure investment and income inequality (Timilsina et al., 2020). Developing countries, unlike their developed counterparts, often experience infrastructure-led economic growth. By leveraging comparative advantages, such as geographic location, these nations connect local economies to global value chains (Sanchez-Robles, 1998; Esfahani and Ramirez, 2003). However, a cautionary note arises. Connecting developing countries to global value chains may inadvertently benefit large multilateral corporations in the long-run. These corporations gain market access through infrastructure financed by national debt—a departure from colonial times when colonial powers directly funded railroads and ports (Gundogdu, 2023). Despite progress, limited information exists regarding infrastructure affordability and access for the poor. Establishing a clear cause-and-effect relationship between infrastructure development and poverty alleviation remains challenging (Calderon and Serven, 2014). Hence, infrastructure investment is not a universal savior.



Tailored business models for each sector, coupled with alternative financing mechanisms, are essential to mitigate moral hazard and adverse selection. In summary, the impact of infrastructure investment on economic growth, poverty, and inequality have yielded mixed results so far. While infrastructure can contribute positively, a nuanced understanding is crucial for sustainable development. In navigating this complex landscape, policymakers must tread carefully, recognizing that developing infrastructure assets alone cannot solve all challenges.

The conventional approach to infrastructure provision often relies on financing through foreign exchange debt, with subsequent efforts to address debt sustainability by blending market-rate financing with concessional loans or private sector engagement. For instance, the Washington Consensus advocated allocating debt to governments for electricity transmission lines and substations, aiming to make electricity generation and distribution profitable for the private sector while ensuring public access. However, despite myriads electricity infrastructure projects in member countries of the Organization of Islamic Cooperation (OIC), energy access issues persist due to affordability constraints. Allowing private companies to tariff the general public has not yielded the desired outcome, as electricity access is perceived as a fundamental right even by those unable to afford it. The seemingly endless cycle of electricity transmission and substation projects has not effectively addressed energy access, particularly in remote areas. Two other perpetual infrastructure endeavors bear the titles of “road reconstruction” and “rehabilitation of irrigation and drainage.” The challenge with transport infrastructure lies in maintenance. Here, Public-Private Partnership (PPP) models have proven effective. Although PPPs entail higher initial costs compared to public procurement, long-term cost savings through efficient maintenance may compensate for this difference. The transport sector, in particular, should benefit from PPPs, as they enhance foreign exchange earning capacity, facilitating the repayment of foreign debt (Gundogdu, 2018). Regarding irrigation and drainage projects, which have existed for decades, their current state is one of disrepair. Initial productivity gains from irrigation have waned due to rising underground water levels, necessitating drainage interventions. Over time, drainage aspects have become integrated into irrigation projects, followed by rehabilitation efforts. This natural progression addresses the unintended consequences of initial interventions. Recent wisdom suggests an alternative path: rather than altering the environment through large-scale irrigation and drainage projects, we should choose crops based on the region’s soil and water realities (Diallo and Gundogdu, 2021). By adopting context-specific approaches, we can enhance the effectiveness of infrastructure investments while minimizing adverse effects.

Robert McNamara also demonstrated a keen interest in polio eradication. Presently, substantial efforts and considerable financial resources—amounting to hundreds of millions of dollars—are dedicated to polio eradication programs in countries belonging to the Organization of Islamic Cooperation (OIC). While the incidence of polio cases has significantly decreased, recent reports indicate that polio vaccines have undergone mutations, and unfortunately, there is no cure for this altered strain. In light of this situation, local communities pose a valid question: “Our children are suffering from malnutrition; why allocate significant resources with foreign debt to polio vaccines instead of addressing the pressing malnutrition issues?” Consequently, substantial funds are allocated to media campaigns aimed at persuading local communities about the importance of continued polio vaccination efforts.

My initial encounter with the profile of Robert McNamara occurred in the early 2000s while working on an undergraduate project aimed at optimizing the allocation of public buses within a city. McNamara, renowned for his similar work during World War II—particularly in the context of bomber raids and statistical systems for troop and supply monitoring. While the conventional approach would advocate continued reliance on public buses to ensure accessible and financially sustainable public transport, a more impactful solution lies in augmenting existing systems with a few strategically placed metro lines. In the year 2024, our perspective on infrastructure development must evolve significantly. Rather than persistently expanding traditional transport infrastructure—such as railroads, ports, and highways—we should explore alternative avenues. Specifically, investing in levitation technologies offers promise. By redirecting resources from conventional outputs (e.g., railroads, highways, mass transit, and ports), we can achieve more efficient and effective infrastructures. The critical distinction lies in focusing on outcomes rather than fixating solely on specific outputs (e.g., telephone lines). Strategic missteps in selecting the wrong output can have dire consequences. Consider the shift from landlines to mobile networks in the early 1990s. While some countries invested heavily in landline infrastructure, mobile networks ultimately proved superior in terms of efficiency and effectiveness. Unfortunately, some countries burdened themselves with long-term foreign debt related to landline investments. The historical trajectory of infrastructure development underscores the advantages of intangible, small and flexible outputs (infrastructure assets) designed to deliver desired outcomes. Such solutions place less strain on public finances and have a reduced environmental footprint. As we navigate the complexities of modern infrastructure, let us heed the lessons learned: prioritizing intangible, small-scale, and flexible infrastructure assets can yield better results for both society and the environment.

All of these factors suggest that it is prudent to examine infrastructure from a different perspective. Islamic economics and finance, in this context, offer valuable insights. Therefore, it is beneficial to establish a comprehensive definition of infrastructure and categorize it from an Islamic viewpoint. This approach can provide valuable policy guidance and informed investment strategies.

## 2. Islamic Categorization of Infrastructure

Gundogdu (2023) proposed a comprehensive definition for infrastructure: ‘Infrastructures are enablers for the sustainable functioning and progress of society.’ Within the discipline of Islamic economics and finance, infrastructure is categorized into three main types: economic infrastructure, social infrastructure, and accountability infrastructure (Hisbah), as detailed in Table 1.

**Table 1: Infrastructure Sectors**

|                                      |                                                                                                                                                                                    |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Economic Infrastructure</b>       | - Airports, ports, railways, mass transit, roads                                                                                                                                   |
|                                      | - ICT First mile                                                                                                                                                                   |
|                                      | - Electricity generation, electricity transmission and distribution, natural gas, energy efficiency, district heating and cooling                                                  |
| <b>Social Infrastructure</b>         | - Solid Waste Collection and transport, integrated municipal solid waste, treatment disposal                                                                                       |
|                                      | - Water supply (supply of potable water and agricultural irrigation including water treatment, transport, and distribution), sewage, wastewater treatment, drainage for irrigation |
|                                      | - Primary, secondary, and tertiary healthcare.                                                                                                                                     |
|                                      | - Primary, secondary, and tertiary education                                                                                                                                       |
| <b>Accountability Infrastructure</b> | - Law Enforcement, Courts, and Prisons, regulatory and supervisory agencies                                                                                                        |

**Source:** Gundogdu, 2023

### 2.1 Economic Infrastructure and Social Infrastructure

The Islamic proposition aims to ensure equitable access to social infrastructure services for all members of the community. No one should be left behind. The provision of social infrastructure plays a pivotal role in guaranteeing equal opportunities. However, current practices often limit quality healthcare and education to the affluent, excluding young individuals from less fortunate families. To address this, opportunities must be accessible to everyone.

The issue of weak social mobility is closely tied to the commodification of social infrastructure, which is deemed unacceptable in Islam. Conversely, private entrepreneurship is highly valued and considered sacred, as long as it does not hinder opportunities for others and maintains fair risk-reward distribution (Gundogdu, 2019a).

This balanced approach to private service provision suggests that even for economic infrastructure, prioritizing small and flexible infrastructure is optimal. Such market structure significantly influences service pricing, and head-to-head competition promotes equitable alternatives. In the energy sector, technological trends enable small and medium-sized enterprises (SMEs) to participate while avoiding household tariff burdens. When significant investments are necessary, they should be undertaken with minimal public burden. Similarly, the transport and information and communication technology (ICT) sectors are expected to embrace small and flexible infrastructure.

Addressing moral hazards associated with governments, commercial banks, and project implementers—including adverse selection during project prioritization—requires infrastructure investments through specialized multilateral development banks. Identifying appropriate business models based on categorization is crucial to avoid moral hazards, adverse selection, and unfairness. Quality in infrastructure services depends not only on closing the infrastructure gap but also on ensuring safe and reliable service delivery. For instance, having access to water does not guarantee health if the flow is unsafe or unreliable. Similarly, being connected to the electricity grid does not ensure a continuous and reliable power supply (Fay et al., 2019).

In contrast to conventional approaches, the water sector should not be commodified in Islam. Water, historically associated with Waqf (endowment), aligns with the health and education sectors. Its position as part of social infrastructure is clear. Solid waste management, although not explicitly addressed in early Islamic texts, shares characteristics with both sewage and wastewater treatment. Both the water sector (including clean water supply, sewage, and solid wastewater treatment) and solid waste management significantly impact public health. Therefore, these sectors should be considered integral components of social infrastructure due to their strong interlinkage with public health (Andres et al., 2015).

Finally, irrigation and drainage, crucial for rural development, are categorized under the water sector as part of social infrastructure. The imperative for community ownership and sustainable water resource management within specific watershed areas justifies their inclusion in the realm of social infrastructure (Diallo & Gundogdu, 2021).

## 2.2 Accountability Infrastructure (Hisbah)

Hisbah, an institution specific to Islam, emerged during the time of the Prophet Muhammad (PBUH). Its purpose is to permeate every aspect of life with Islamic principles. Although the specific duties of Hisbah have varied across different periods, it consistently undertakes significant responsibilities while adhering to its foundational purpose. The concept of Hisbah, which entails enjoining good and forbidding evil, finds mention in the Quran.

“Let there be a group among you who call ‘others’ to goodness, encourage what is good, and forbid what is evil—it is they who will be successful.”

3:104

Muhammad (PBUH) actively promoted virtuous behavior and opposed wrongdoing in all spheres of life. As his personal responsibilities increased, he appointed qualified individuals—both male and female—known as Sahibu’s Suk to inspect tradesmen and craftsmen. Over time, Hisbah evolved into a fully-fledged government organization within Islamic states, primarily focused on law enforcement, regulation, and market supervision (Kallek, 1998). Hence, the roles and limitations of the state were clearly defined in Islam.



Reflecting on historical experiences, it becomes evident that states play a crucial role in the economy through regulation and supervision. However, this role should evolve beyond mere tax collection and rent distribution. Instead, states should prioritize ensuring sustainable and affordable provision of infrastructure services in an equitable manner. To achieve progress, we must revisit the distinction between outcomes and outputs.

Consider the example of granting a public-private partnership (PPP) concession for expanding a seaport. Rather than focusing solely on physical expansion, the state can aim for the desired traffic handling outcome. Limited concession periods encourage PPP sponsors to design efficient projects, incorporating resilience against natural hazards and innovative, cost-effective service delivery methods. For instance, while a conventional public procurement approach might emphasize port expansion, PPP sponsors could propose novel port designs and implement management information systems (MIS) to achieve the same traffic volume without formidable assets or costs.

The government's role should center on facilitating proper concession agreements, allowing creative approaches by the private sector. Unfortunately, some PPP airport projects faced challenges during the COVID-19 pandemic. Reports indicate that PPP sponsors were constrained by predefined asset requirements based on existing feasibility studies, limiting their ability to innovate. Islamic wisdom advocates private service provision for economic infrastructure and a waqf-based business model for social infrastructure. Government remains essential, while entrepreneurship should flourish. Throughout history, states' failures often stemmed from decay in accountability infrastructure, hindrance of entrepreneurial initiatives and unnecessary involvement in economic and social infrastructure services (Gundogdu, 2019a).

### 3. Sustainability Parameters

The categorization of infrastructure highlights the absence of a one-size-fits-all approach. The distinction between economic and social infrastructure introduces the first sustainability parameter: the choice of a business model for service delivery. In this context, social infrastructure aligns with the Waqf model, while economic infrastructure leans toward private entrepreneurship. Selecting an appropriate business model narrows down the options for various Islamic finance contracts aimed at asset development (Diallo & Gundogdu, 2021). Hence, the second parameter pertains to financing contracts for asset development. These contracts also determine the third parameter: most suitable methods for resource mobilization. Avoiding resources from tax collection and unwelcomed deposit-collecting banking models (as these banks' resources from the depositors are short-term and lending for long-term give rise to asset liability management challenges) underpin the third parameter. Relying solely on public sources and schemes to create an enabling environment for large corporations is inequitable and unsustainable. This approach becomes particularly critical given the substantial infrastructure gap in providing basic services such as electricity, clean drinking water, and sanitation (Rosenberg & Fay, 2019).

To address these sustainability parameters, we can explore Islamic alternatives that ensure the viability of infrastructure investments by multilateral development banks (MDBs). These three parameters are summarized in Table 2.

**Table 2: Sustainability parameters**

|                                                                                 | <b>Sector</b>                             | <b>Business model for service delivery</b>      | <b>Contract for asset development</b> | <b>Resource mobilization to Scale up</b>    |
|---------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------|---------------------------------------|---------------------------------------------|
| <b>Economic infrastructure</b><br><br>(commercially priced investment)          | Transport                                 | PPP                                             | Istisna                               | Asset-backed Sukuk                          |
|                                                                                 | ICT                                       | PPP                                             | Murabaha                              | Crowd funding (Mudaraba, Two-Step Murabaha) |
|                                                                                 | Energy                                    | Off-grid renewable asset to be provided by SMEs | Ijara                                 | Crowd funding (Parallel Ijara)              |
| <b>Social infrastructure</b><br><br>(concessional priced investment—Qarz Hasan) | Solid waste, water, health, and education | Waqf                                            | Istisna for Waqf asset development    | Cash Waqf/Cash Waqf Sukuk                   |

Source: Gundogdu, 2023

### 3.1 Business Model for Service Delivery

Sustainability hinges on identifying equitable business models that distribute risks and rewards fairly. These models should ensure long-term quality service provision and asset maintenance while preventing exploitation of service users. Project assets must be well-maintained, resilient to natural hazards, and affordable for consumers over time. The chosen business model should address moral hazard, adverse selection, and financial sustainability (Diallo & Gundogdu, 2021).

Ideally, technology would eliminate the need for large infrastructure assets. The second-best option involves community ownership, feasible for social infrastructure sectors like education, health, water, and solid waste management at the municipal or county level. However, community ownership is counterproductive for energy, transport, and ICT projects due to their broader scope. Islam does not advocate community ownership in economic infrastructure either (Gundogdu, 2019c).

As technology evolves, smaller, flexible infrastructure may replace large-scale projects. This doesn't necessarily lead to community ownership but rather to small-scale SMEs or household ownership. Thus, community ownership in social infrastructure and SME/household ownership in economic infrastructure may shape equitable Islamic infrastructure investment in the future. Until then, large companies will continue to play a role, necessitating checks and balances for fairness.

Maintenance is crucial for sustainability. Public-private partnerships (PPPs) excel in project asset management and long-term service provision. However, PPPs can have drawbacks in household tariffing schemes or social infrastructure (Gundogdu, 2019c). For energy, off-grid or mini-grid renewable electricity—privately owned but without major corporations—is a promising model, especially for remote areas. This aligns with the technological trend favoring energy provision without transmission lines or household tariffing.

Advancements in renewable energy have opened doors for small, flexible off-grid or mini-grid solutions in the energy sector. However, resource mobilization remains a challenge. The Distributed Renewables for Energy Access (DREA) system, which leverages crowd funding to finance local SMEs for installation, exemplifies a promising trend. Unlike traditional large-scale power systems, DREA operates independently without extensive distribution networks, providing electricity for various needs (Gundogdu, 2023).

Regarding social infrastructure, private sector provision can be detrimental in water, health, and education sectors. The Islamic model for social infrastructure—community Waqf—emphasizes responsible asset management. While public-private partnerships (PPPs) work well for ICT and transport, different financing contracts are essential for the development of ICT assets.

### 3.2 Financing Contracts for Asset Development

The empirical data on infrastructure investment suggests that energy sector infrastructure exhibits a higher likelihood of default. The challenge of collecting tariffs plays a crucial role in this risk, especially if such risks are not effectively transferred through off take contracts to mitigate uncertainties arising from price fluctuations and demand variations. However, merely having an appropriate business model to address default risk is insufficient as a general principle for infrastructure investment. During the 'greenfield' stage (i.e., the construction phase), there is an incremental default risk. Subsequently, as project assets become fully operational during the 'brownfield' stage, the risk profile tends to converge toward investment grade. In other words, the default risk follows a hump-shaped trajectory. (Jobst, 2018). Beyond traditional political risk insurance, innovative methods shape the risk mitigation landscape. For instance, Surety Bond Insurance guarantees project completion. Nevertheless, these empirical observations indicate that Sukuk issuance should ideally occur subsequent to the completion of infrastructure assets and after achieving project financial closure. This strategic timing aims to mitigate potential adverse effects on capital markets.

For transport projects, environmental and social safeguards (ESS) are critical. Financiers should not evade their long-term responsibilities, considering the impact of project assets on the environment and communities. While the adverse impacts of project development on communities are not technically insurable, project developers can anticipate predictable outcomes, such as damage resulting from road construction near orchids. Given that damage to orchids is anticipated, as terrain-altering construction would facilitate the proliferation of harmful species, it is deemed uninsurable. Islamic finance contracts, particularly Istisna contracts, promote merit-based employment of bankers who can navigate complexities related to environmental and social risks. Excessive reliance on insurance could lead to moral hazard in infrastructure investment. Mitigating default risk during the greenfield stage necessitates identifying suitable asset development contracts. These contracts should ensure equitable distribution of rights, obligations, and responsibilities among parties. While both the transport and ICT sectors can benefit from public-private partnership (PPP) models, project assets may require distinct contractual arrangements.

Proposals to use insurance against climate change risks, such as drought, should be approached cautiously to avoid moral hazard by financial institutions. Similarly, multilateral development banks' A Loan/B Loan mechanism, where MDBs absorb the initial loss, introduces its own moral hazard. Government PPP laws addressing project completion risk alter the role and risk dynamics of financial institutions in infrastructure finance. In contrast, the Istisna contract in Islamic finance positions financial institutions as central actors in infrastructure development. Shari'ah restrictions limit the applicability of certain risk mitigation methods within Istisna contracts.

The presence of Multilateral Development Banks (MDBs) in infrastructure deals—through participation in lending, equity contributions, and insurance products—substantially reduces the probability of expropriations (Marcelo and House, 2016). This effect could be attributed to the fact that the host country holds a stake in the specific MDB involved, thereby assuming an obligatory role in the project.

For PPP transport projects, the most suitable Islamic finance contract—one that ensures equitable distribution of rights and obligations—is Istisna. However, the situation differs for ICT first-mile projects, where the significance of first-mile assets for the overall economy discourages any liens on project assets.

The primary challenge associated with Murabaha sales lies in resource mobilization. When items are financed through Murabaha, ownership transfers to the loan seeker. Consequently, asset-backed securitization becomes problematic. Unlike other financing models, Murabaha lacks the ability to create securitized assets that can be traded in secondary financial markets, particularly Sukuk markets. Consider the case of ICT assets, such as fiber optics. Establishing a lien (such as through Ijara) to enable securitization of proceeds and secondary market trading is challenging. In the case of a disagreement between financiers and the project company, any legal action related to liens on these assets has the potential to significantly impact the entire nation.

Consequently, transferring ownership of assets through a Murabaha sale is a more suitable approach. Unlike the ICT first-mile context, where specific considerations apply, a general principle favors developing project assets using an Istisna contract. The Istisna contract ensures a fair distribution of risk, rewards, and obligations, particularly in cases involving substantial civil work, such as transportation projects. Istisna contracts are also suitable for Waqf asset development in social infrastructure provision.



In the energy sector, distributed renewables for energy access (DREA) systems, which encompass stand-alone off-grid systems as well as micro- or mini-grids, operate independently of a centralized electricity grid and necessitate Ijara contracts. Unlike ICT, financiers can place a lien on Ijara assets. However, it is essential to avoid unfair risk mitigation mechanisms, such as group collateral practices of microfinance. The Ijara contract, which involves a lien on assets, facilitates securitization and secondary market trading, provided there are no limitations on the assignment of lease receipts within the relevant local legal framework. It is important to consider that certain countries impose such limitations on deposit-collecting commercial banks. Consequently, a more innovative approach to resource mobilization becomes imperative within the energy sector.

### 3.3 Resource Mobilization to Scale-up

Since 1990, infrastructure investment, typically measured by the proportion of public capital spending relative to output, has witnessed a decrease, especially in developing nations (Jobst, 2018). To maintain existing asset service levels and meet additional infrastructure demand, these countries require an investment equivalent to approximately 6.1% of their GDP (Ruiz-Núñez and Wei, 2015). The pursuit of sustainable and thriving societies hinges on effective financing. However, improper utilization of financial resources can have detrimental effects on both the economy and society.

To prevent unfair wealth transfers between different segments of society, financial contracts and resource mobilization mechanisms must be carefully designed. Alternative resource mobilization tools become crucial for sustainability. Deposit-collecting banks, while common, do not offer a viable business model to underpin Islamic finance (Diallo and Gundogdu, 2021). Consequently, neither tax resources nor deposit banking alone can provide a sustainable solution for mobilizing resources in infrastructure investment.

Despite the challenges, many developing countries struggle to address their infrastructure investment gaps due to insufficient domestic savings and limited fiscal space (Schwartz et al., 2014). Therefore, relying solely on tax resources and savings within deposit banks is neither advisable nor sufficient to bridge this gap. In light of this, a paradigm shift in development finance suggests crowding in private capital—an approach that aligns with Islamic wisdom. Long-term infrastructure investment necessitates innovative strategies. Infrastructure investments that yield long-term, predictable cash flows align effectively with the extended liabilities of insurance companies. Additionally, other institutional investors, such as pension funds and sovereign wealth funds, find this convergence beneficial for mobilizing resources to support economic infrastructure (Jobst, 2018).

Considering the unique characteristics of Islamic finance in asset development and its connection to resource mobilization, several Islamic alternatives can be effectively employed for resource mobilization. These include Asset-backed Sukuk for transport Public-Private Partnerships (PPPs), two-step Murabaha and Mudaraba structures for Information and Communication Technology (ICT) projects, crowd funding for Small and Medium Enterprises (SMEs) financing with Ijara for the energy sector, and the utilization of Cash Waqf Funds and Cash Waqf Sukuk for developing social infrastructure through Waqf assets.

Given the significance of the energy sector as a critical economic infrastructure, it is essential to mobilize resources using commercially viable market-financing mechanisms. Similarly, the Information and Communication Technology (ICT) sector warrants similar treatment. However, unlike Ijara financing, which relies on leasing arrangements, the utilization of Murabaha sale for project asset provision necessitates the adoption of two-step Murabaha and Mudaraba contracts in the context of ICT projects. As noted, these asset-based contracts pose challenges due to their lack of secondary market tradability, driven by Shari'ah compliance constraints. In contrast, Public-Private Partnerships (PPPs) offer a more promising avenue. By structuring transport PPPs with asset-backed Sukuk, these assets become tradable, providing liquidity management opportunities for Islamic financial institutions. This innovative approach enhances liquidity management tools for Islamic Banks and facilitates efficient resource mobilization (Gundogdu, 2019c).

Cash Waqf Fund and Cash Waqf Sukuk represent contemporary tools for mobilizing resources in the context of Waqf development. Unlike economic infrastructure contracts, which may be commodified, social infrastructure contracts should avoid such commercialization. In sectors like transport, Information and Communication Technology (ICT), and energy, resource mobilization should occur from the market using commercially priced instruments. However, when developing social infrastructure through Waqf assets using Istisna, resources can be mobilized through concessional loans (Qarz Hasan). Once resources are received, the Cash Waqf Fund can continue to develop additional assets. The resources of Cash Waqf can be invested in economic infrastructure projects for commercial return, and proceeds from such investment can be used for social infrastructure development. It is important to note that Cash Waqf Sukuk is not commercially priced; rather, it provides an accessible avenue for philanthropists to temporarily allocate part of their wealth to Waqf and deduct it from their Zakat base. While Zakat resources cannot directly fund social infrastructure development, allocating a portion of wealth to Cash Waqf, as an alternative to Zakat, aligns with Fisabilillah spending (Gundogdu, 2019b).

## 5. Conclusion and Policy Recommendations

Infrastructure assets should be developed by Multilateral Development Banks (MDBs) in accordance with their procurement policies, and OIC Member Countries should recognize the crucial role played by these institutions. Social infrastructure should be effectively provided through the Waqf business model to prevent the commodification of public goods. Economic infrastructure, in turn, is best managed by the private sector. The government's role should be limited to overseeing accountability infrastructure (Hisbah). When investing in infrastructure, the focus should shift from mere output to meaningful outcomes. Creativity and vision are essential to achieve the desired results. Focus should be exploring intangible or small and flexible outputs to achieve desired outcomes. It is crucial to consider adverse selection and moral hazard issues; otherwise, infrastructure investment could resemble a colonial exploitation. To ensure fair risk distribution and gains, Islamic finance contracts should be purposefully utilized for infrastructure asset development and resource mobilization, facilitating scalability.

The specific points of interest are delineated as follows:

- i. Public-Private Partnership (PPP) concessions should mandate that sponsors develop their own solutions to achieve the desired outcomes defined by the government. The government should refrain from predetermining project outputs through a feasibility study.
- ii. In the realm of agricultural and rural development, the focus should shift from irrigation and drainage projects to the identification of crops that align with the soil and water conditions specific to each watershed.
- iii. Social infrastructure assets, such as schools and hospitals, should be owned and maintained by the communities, utilizing the Waqf model.
- iv. Infrastructure investment should not be strategically employed as a tool for government budget support or management, nor for central bank foreign exchange reserve management. This approach would lead to long-term debt sustainability problems.
- v. The emphasis of infrastructure development should be on outcomes (services to be provided) rather than outputs (project assets).
- vi. Infrastructure development and investment should not solely focus on the availability of service provision but also on ensuring affordability for the public. Public tariffing by the private sector should be closely monitored and, if possible, avoided or minimized by the government.
- vii. Projects that are not expected to increase the foreign exchange earning capacity of OIC Member Countries should not be financed with foreign exchange loans.

- viii. Infrastructure investment should be divided into two phases: (i) project asset development and (ii) resource mobilization. Resource mobilization, such as Sukuk issuance, should only commence after the assets are created to mitigate financial risk in capital markets. Asset creation can be effectively managed by Multilateral Development Banks (MDBs) that specialize in project design, output/outcome assessment, project procurement, and possess a long-term vision to ensure Environmental and Social Safeguard measures. The involvement of MDBs in the completion of project asset creation, rather than providing project completion guarantees or surety bonds, serves as a means to avoid moral hazard. MDBs can also facilitate the securitization of Sukuk and mobilize resources by offering investment opportunities to capital markets, but only after project completion. Additionally, MDBs can explore philanthropic avenues for the development of social infrastructure and resource mobilization platforms.
  
- ix. The resources of deposit-collecting banks should not be utilized for infrastructure investment to avoid an asset-liability mismatch that could culminate in a financial crisis. Instead, securitization through Sukuk, where feasible, and tapping into the resources of the insurance sector and pension funds would be viable for resource mobilization.
  
- x. OIC Member Countries should ensure legal clarity when engaging with financiers to prohibit any liens on their strategic infrastructure assets that could disrupt the functioning of society, thereby preventing financiers from assuming that the imposition of such liens is viable.



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## Contribution of the OIC to Advancing Research and Innovation in Islamic Economics and Finance: Current Status and Challenges

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### Introduction

Research and innovation are crucial for the progress of the Islamic economy and finance, as they provide the foundation for its growth and long-term sustainability. Engaging in ongoing research, creates novel financial solutions that not only adhere to Shariah principles but effectively cater to the specific requirements of various markets and stakeholders in Muslim countries. This innovation is essential for the expansion of Islamic finance, as it guarantees accessibility to all sectors of society, including those who are unserved and underserved. Research also plays a crucial role in developing maqasid-driven financial solutions that promote financial inclusion and empower individuals and communities. By optimizing research and fostering innovation, Islamic finance has the potential to adapt and address contemporary difficulties while adhering steadfastly to its ethical and social justice values. Furthermore, research plays a pivotal role in the establishment of a strong regulatory framework that promotes the expansion of Islamic finance, guaranteeing its durability and stability. This is the process of establishing uniform standards across many countries, which enables more seamless transactions across borders and enhances the worldwide influence of Islamic finance. Research and innovation enhance the inclusivity and resilience of Islamic financial sectors, aligning them with the Islamic worldview that helps understand the universe, people, and their connection with Allah and serve as guidance on morality, social interactions, and influence our behaviour and decision-making. Islamic finance may contribute significantly to the sustainable development of Muslim nations by advocating for ethical investment, environmental stewardship, and social justice.

### The OIC's Endeavors in Advancing Research and Innovation in Islamic Economic and Finance

The Organization of Islamic Cooperation (OIC) has been at the forefront of efforts to advance research and innovation among its member states, recognizing these areas as vital for sustainable socio-economic development. The OIC's endeavors are rooted in the belief that fostering research and innovation can bridge the development gap, enhance economic growth, and improve the quality of life across the Islamic world. (Organization of Islamic Cooperation [OIC], 2023)

One of the key initiatives undertaken by the OIC is the promotion of research and innovation as central pillars of development. To achieve this, the OIC has established various programs and institutions dedicated to enhancing research capabilities and advancing innovation. Recognizing the significant challenges faced by the member countries such as limited financial resources, inadequate infrastructure, and a shortage of skilled human capital the OIC is committed to overcoming these barriers to foster research and innovation.

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The OIC's commitment to advancing research and innovation within its member states is multifaceted. It includes increasing investment in research and development, implementing policies that support innovation, and strengthening international cooperation (Organization of Islamic Cooperation. [OIC] (2022). To ensure these commitments are effectively realized, the OIC established two distinct organs undertaking this noble mission, The Islamic Development Bank Institute (IsDBI) under the Islamic Development Bank (IsDB) and The Standing Committee for Economic and Commercial Cooperation of the Organization of Islamic Cooperation (COMCEC), two organs with a clear mandate to facilitate the dissemination of knowledge, research, and producing innovative solutions, fostering cooperation, and sharing best practices among member countries.

## **The Islamic Development Bank Institute (IsDBI)**

The Institute, originally known as the Islamic Research and Training Institute (IRTI), was renamed in 2021 as the Islamic Development Bank Institute (IsDBI) to better align with the Islamic Development Bank's strategic goals and provide tangible, sustainable contributions to improving the well-being of the member countries. Recognized as the knowledge hub of the IsDB Group, the Institute leads efforts in developing innovative solutions to address the economic challenges faced by the member countries and Muslim communities, all within the framework of Islamic economics and finance. The primary strategic aim of the Institute is to create knowledge-driven solutions that adhere to Islamic economic principles, thereby supporting the sustainable socio-economic development of the member countries and Muslim communities globally. To achieve these goals, the Institute employs a 'Blue Ocean Strategy' focused on several key objectives, including creating value through knowledge-based innovations and building human capital, emphasizing two main critical success factors: a problem-solving approach and strong partnerships and networks. (Islamic Development Bank Institute [IsDBI], 2021).

IsDBI has made significant contributions to advancing Islamic economics, finance, and socio-economic development across the member countries. Key achievements include the development of Islamic finance frameworks and standards, such as the "Shariah Governance Framework," which guides Islamic financial institutions in establishing and maintaining robust Shariah governance practices, and the "Guidelines for the Establishment of Waqf Institutions," which offers detailed guidelines for establishing and managing Waqf (Islamic endowments) institutions with a focus on governance, sustainability, and social impact. (Islamic Development Bank Institute [IsDBI], 2023).

In capacity building and education, IsDBI has enhanced the skills of professionals and scholars through training programs and workshops, thereby strengthening the Islamic finance ecosystem. Notable initiatives include the "Islamic Finance Executive Program," a specialized training program for senior executives and policymakers, and the "Capacity Building for Islamic Microfinance" series, which enhances the capacity of microfinance institutions to offer Shariah-compliant financial services. (Islamic Development Bank Institute [IsDBI], 2023).



The Institute has also produced extensive research and publications that contribute to the development of new financial products and policies in Islamic economics. Key publications include “Islamic Finance: Principles and Practice,” “Islamic Financial Services Industry Development: Ten-Year Framework and Strategies,” and “Islamic Capital Markets: A Comparative Approach.” In addition, IsDBI has produced important research papers and working papers, such as “The Role of Islamic Finance in Financial Inclusion,” “Zakat Management and Institutional Development: Models and Best Practices,” and “Sukuk Market: Recent Developments and Implications.” (Islamic Development Bank Institute [IsDBI], 2023).

IsDBI also instituted the IsDB Prize in Islamic Economics, Banking & Finance in 1988, an international award recognizing, rewarding, and encouraging creative efforts of outstanding merit in these fields. Since its inception, a total of 44 individuals and institutions have been awarded this prestigious prize. (Islamic Development Bank Institute [IsDBI], 2023).

In promoting sustainable development, IsDBI aligns its activities with the Sustainable Development Goals (SDGs), supporting initiatives that address poverty, financial inclusion, and environmental sustainability. The Institute has also advanced Islamic social finance instruments, such as Zakat, Waqf, and Sadaqah, optimizing their use for poverty reduction, education, and healthcare. (Islamic Development Bank Institute [IsDBI], 2023).

IsDBI has fostered international collaboration by facilitating partnerships among Islamic finance institutions, universities, and global organizations, thereby enhancing knowledge exchange and integration. Additionally, the Institute has supported the development of new Islamic financial products like Sukuk, Takaful, and microfinance, which have expanded the impact of Islamic finance.

In summary, IsDBI has played a leading role in standardization, education, research, and innovation, driving positive socio-economic change across its member countries. (Islamic Development Bank Institute [IsDBI], 2023).

**Table 1: Showcase of the main contributions of the IsDBI in research, reports, standards, and product solutions:**

| Year           | Contribution Type | Title                                                       | Details                                                                                                                  |
|----------------|-------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>2017</b>    | Product Solutions | Salam Based Liquidity Management                            | A research proposing an Islamic interbank liquidity management product.                                                  |
|                | Standards         | Shariah Governance Framework for Islamic Banks              | A comprehensive framework to ensure Shariah compliance in Islamic banking operations.                                    |
| <b>2018</b>    | Product Solutions | Islamic Social Finance and its Impact                       | A study on the role of Islamic social finance tools such as Zakat, Waqf, and Sadaqah in addressing social challenges.    |
| <b>2019</b>    | Product Solutions | Sukuk Structuring Guidelines                                | Provides comprehensive guidelines on structuring Sukuk, an Islamic financial certificate similar to bonds.               |
| <b>2020</b>    | Report            | Islamic Finance Development Report                          | Analyzes the state of Islamic finance globally and offers insights on development trends and opportunities.              |
|                | Product Solutions | Green Sukuk: Opportunities and Challenges                   | Discusses the potential of Green Sukuk as a tool for financing environmentally sustainable projects in member countries. |
| <b>2021</b>    | Research          | Bridging Islamic Finance and Sustainability through Fintech | Focuses on leveraging fintech to align Islamic finance with sustainable development, especially in the Maghreb region.   |
|                | Report            | Impact of COVID-19 on Islamic Finance                       | Examines the effects of the pandemic on Islamic finance and suggests strategies for recovery.                            |
| <b>2022</b>    | Research          | Economic Empowerment through Islamic Finance                | Explores how Islamic finance can be used to economically empower underprivileged communities in member countries.        |
| <b>Ongoing</b> | Standards         | Shariah Standards for Islamic Finance                       | Developed and issued various Shariah standards that are widely adopted in Islamic financial institutions.                |

## **COMCEC's Mandate for Research and Innovation Advancement**

The Standing Committee for Economic and Commercial Cooperation of the Organization of Islamic Cooperation (COMCEC) is a vital component of the OIC, founded in 1984 with the main objective of fostering economic and commercial cooperation among the OIC Member Countries. COMCEC serves as a platform for member governments to address common economic challenges, align their economic strategies, and promote collaboration in the areas of trade, finance, agriculture, transportation, tourism and poverty alleviation.

COMCEC's main mandate is to address the economic difficulties faced by the Islamic Ummah and to actively support development initiatives undertaken by its Member States. A key objective is to generate and disseminate valuable knowledge, exchange expertise and best practices, and align policies among the Member States in line with the vision and principles of the organization's strategy. This mission underscores COMCEC's commitment to promoting economic cooperation and integration across the Islamic world. (COMCEC, 2023)

The organization places a strong emphasis on generating and sharing knowledge that can help overcome economic challenges. This includes conducting thorough research, producing insightful reports, and compiling data that can be shared among the Member States. COMCEC aims to enhance the collective understanding of economic issues impacting the Islamic Ummah and provide practical insights that contribute to sustainable development.

Moreover, COMCEC is dedicated not only to knowledge generation but also to the active exchange of experiences and implementation of best practices among its Member States. This aspect of its work is vital as it allows countries to learn from each other's successes and challenges, accelerating the adoption of effective policies and strategies across the Islamic world. By sharing and adopting proven strategies, Member States can apply successful solutions within their own contexts, leading to more impactful and efficient development outcomes.

## **COMCEC's Major Contributions to the Advancement of Research and Innovation in Islamic Economics and Finance**

The COMCEC, has been instrumental in fostering innovation and research within its member states. This is achieved primarily through the sharing of successful strategies and the generation of novel insights. Key strategic platform initiatives include:

### **Ministerial Sessions:**

Annual meetings where the Ministers of the OIC Member Countries discuss strategic economic and commercial cooperation, set agendas, and make crucial decisions.

### **Working Groups:**

Thematic expert-level Working Group Meetings are organized twice a year focusing on the themes determined by the Member Countries' focal points in annual coordination meetings in the areas of trade, finance, agriculture, tourism, transportation and poverty alleviation. These meetings serve as a regular platform for discussing development policies and come up with specific policy recommendations to be submitted to the Ministerial Sessions for consideration and adoption.

## **Annual Ministerial Exchange of Views Sessions:**

Held during Ministerial Sessions, these forums facilitate in-depth discussions and experience sharing among high-level representatives on topics of common interest.

## **Trainings on Project Funding:**

These focus on monitoring and evaluating projects under the COMCEC Project Funding mechanism, enabling member states to follow-up the implementation of the ongoing projects and also to propose and develop new project ideas.

The COMCEC Capital Markets Regulators Forum: this forum aims at enhancing cooperation in market development and regulation, with task forces on various areas, including Islamic finance.

The OIC-COMCEC Central Banks Forum: launched in 2018, encourages collaboration among central banks, aiming at strengthens cooperation within the OIC's financial landscape.

## **Sector-Specific Forums:**

These forums, such as the one on Tourism focus on challenges and opportunities within specific issues, aiming to enhance cooperation among member states.

These forums and initiatives serve as key platforms for dialogue, collaboration, the dissemination of knowledge, and the exchange of ideas. They play a significant role in the economic development and integration of the Islamic world. (COMCEC, 2023)

COMCEC's research and innovation efforts are further emphasized through their value-added reports that tackle pressing contemporary issues. These reports cover a broad spectrum of topics such as economic cooperation, financial solutions, digitalization, sustainable development, and financial integration. They provide an in-depth analysis of the current economic landscape within the Islamic world and offer strategic recommendations to enhance cooperation, foster innovation, propose policy suggestions, and promote socioeconomic development among OIC Member Countries.

The identified themes from various reports emphasize the need for sustainability and environmental responsibility, particularly in areas such as transport infrastructure, agriculture, and human resource management. This reflects a commitment to balancing economic development with environmental protection by promoting green infrastructure and adopting climate-resilient strategies. There is also a strong focus on fostering collaboration and knowledge sharing among OIC Member Countries. This is evident in the recommendations to enhance cooperation in sustainable transport, agriculture, e-commerce, and financial standardization. COMCEC encourages the member countries to share best practices, resources, and innovations to address common challenges.

Digitalization and technological innovation emerge as key themes across multiple sectors, including e-commerce, vocational education, social assistance, and Islamic finance. COMCEC advocates for investing in ICT infrastructure, adopting digital tools, and embracing emerging technologies to improve efficiency, accessibility, and competitiveness. Additionally, the reports consistently recommend enhancing human capital through education, training, and certification programs. Whether it's improving digital literacy for e-commerce, vocational training to reduce youth unemployment, or HR management in tourism, there is a clear focus on empowering individuals and organizations with the necessary skills and knowledge.



Strengthening regulatory and legal frameworks is a common recommendation, particularly in areas like e-commerce, CBDCs, and Islamic finance. COMCEC emphasizes the importance of establishing robust legal systems to ensure compliance, protect consumers, and create a conducive environment for growth and innovation. Inclusivity and socioeconomic empowerment are also recurring themes, with a focus on policies and programs that specifically target vulnerable groups such as women, youth, and rural communities, ensuring broader participation in economic development.

Public-private partnerships (PPP) are highlighted across various reports, reflecting COMCEC's strategy of leveraging the strengths of both the public and private sectors to achieve sustainable development goals. Lastly, the importance of monitoring, evaluation, and continuous improvement is consistently emphasized. Reports recommend establishing systems to track the performance of various initiatives, ensuring that strategies are effective, and making necessary adjustments based on feedback and data analysis.

COMCEC reports have been well-received due to their in-depth analysis and significant knowledge dissemination, policy recommendations, and the sharing of best practices to a new level. They have also provided member states with valuable data and analysis that inform policy-making and strategic planning. This has helped to create a shared understanding of key economic issues, allowing member states to develop more effective and cohesive responses to the challenges they face. This is in addition to the exchange of experiences and best practices among its member states. This exchange helped accelerate the adoption of innovative solutions that have proven successful in different contexts. By facilitating this exchange, COMCEC's reports enable the member countries to learn from one another, thus aligning policies and strategies among member states and speeding up their implementation across the member countries. (Williams, 2023).

COMCEC has also actively organized a variety of forums, workshops, and trainings designed to enhance economic and commercial cooperation among OIC member countries. These events address a wide array of topics such as trade, finance, agriculture, and tourism, with the overarching goal of overcoming shared challenges and fostering sustainable development within the Islamic world. These gatherings play a crucial role in shaping collaborative efforts across member countries.

## **Key Challenges in Research and Innovation Faced by IsDBI and COMCEC**

The OIC has significantly contributed to the advancement of knowledge by sharing best practices, harmonizing the legal, regulatory, and operational practices of the member countries, contributing to policy-making, and thereby strengthening international cooperation, through its two active institutions in research and innovation. Nevertheless, the two institutions have encountered certain challenges that need to be addressed in order to facilitate the advancement of research and innovation in the member countries of the Organization of Islamic Cooperation (OIC).

The Islamic Development Bank Institute (IsDBI) for instance has made significant contributions to the field of Islamic economics and finance. However, it faces several challenges that impact its ability to maximize its effectiveness. These challenges include:

## **Balancing Innovation with Shariah Compliance:**

Developing innovative financial products that adhere to Islamic principles is both complex and time-consuming. This can slow down the pace of innovation, as ensuring compliance with Shariah law requires rigorous scrutiny and approval processes.

## **Geographical and Economic Diversity:**

The wide range of economic development levels and regulatory environments among the member countries complicates the implementation of standardized solutions. This diversity makes it challenging to create one-size-fits-all strategies that are effective across all regions.

## **Inadequate Outreach and Accessibility:**

There is a limited distribution of resources to underdeveloped regions, which hinders IsDBI's ability to support all member states equally. This inadequate outreach can leave certain areas underserved, particularly those that are less economically developed.

## **Prioritization of Established Markets:**

IsDBI tends to focus more on established markets, which may lead to the neglect of emerging areas. Additionally, the pace of innovation at IsDBI is slower compared to private sector institutions, which are often more agile and responsive to market demands.

## **Regulatory and Bureaucratic Obstacles:**

Delays in project completion and implementation often arise due to regulatory and bureaucratic challenges. Moreover, measuring the long-term impact of initiatives is difficult, complicating efforts to refine programs and justify continued or increased funding.

## **Overreliance on External Partnerships:**

While partnerships are essential, an overreliance on external collaborations may result in solutions that are not fully aligned with the specific needs of the member countries. As the field of Islamic finance grows, IsDBI faces increasing competition from newer research institutes that, despite having less financial backing, are gaining momentum and producing innovative financial solutions.

## **Integrating New Technologies:**

The adoption of new technologies such as AI, fintech, and blockchain presents challenges, particularly in ensuring that these innovations comply with Shariah principles. This integration requires significant research and careful management to balance technological advancement with religious compliance.

## **Global Competition and Emerging Institutions:**

IsDBI must remain competitive in the global arena, especially as emerging, less financially backed research and training institutions are gaining visibility and influence on the international stage.

## Addressing Research and Capacity Building Gaps:

IsDBI's contribution to innovative research and the development of a qualified talent pool remains limited. There is a pressing need to improve these areas to better meet the substantial demands of the member countries.

## Retention of Skilled Professionals:

Critics point out that even when IsDBI successfully recruits skilled professionals, retaining them is challenging. Limited career progression opportunities and inadequate research resources contribute to high turnover rates.

These challenges highlight the need for strategic adjustments to enhance IsDBI's role in promoting Islamic finance and supporting the economic development of its member states. (IsDBI, 2022, 2023)

Like many international organizations, COMCEC encounters various challenges related to research and innovation, which can affect its ability to effectively contribute to the development of its member states. Among these challenges"

- **A shortage of experts in specific research fields** restricts the scope and depth of research activities, leading to outcomes that may be less impactful. Additionally, COMCEC often faces difficulties in attracting and retaining the necessary talent to conduct cutting-edge research, further hindering its capacity for innovation.
- **The diversity among member states** as the Organization of Islamic Cooperation (OIC) member states vary significantly in terms of economic development, infrastructure, and technological capabilities. This diversity complicates the development of research and innovation strategies that are universally applicable and effective. Moreover, the differences in cultural, legal, and regulatory environments across member states make it difficult to implement standardized research and innovation practices.
- **Collaboration and coordination** also present significant challenges. Reaching consensus among member states on research priorities and methodologies can be difficult due to varying national interests and priorities. Effective research and innovation often require collaboration between governments, academic institutions, and the private sector. Ensuring seamless coordination among these stakeholders can be a daunting task.
- **Technological barriers** further complicate COMCEC's efforts. Not all member states have the same level of access to modern technologies and digital infrastructure, which is crucial for conducting and disseminating research. The digital divide can hinder the participation of less developed countries in research initiatives. Additionally, the rapid pace of technological advancement can make it difficult for COMCEC to keep up with emerging technologies and integrate them into research and innovation processes.

- **Data availability and quality** are critical challenges as well. Effective research requires accurate and up-to-date data. However, data collection and management practices vary across member states, leading to challenges in obtaining reliable data for research. The lack of standardized data collection methods across different countries can result in inconsistencies, making it difficult to conduct comparative analyses and draw meaningful conclusions.
- **Political and bureaucratic challenges** also impact COMCEC's research and innovation efforts. Research topics that touch on sensitive political issues may face resistance from certain member states, limiting the scope of research. Additionally, complex administrative procedures and bureaucratic red tape can delay research projects, reduce efficiency, and hinder innovation.
- **Ensuring the sustainability and long-term impact** of research and innovation initiatives is another challenge. These initiatives often require long-term commitment and continuous support. However, maintaining the sustainability of these efforts can be difficult, especially in the face of changing political and economic conditions. Furthermore, assessing the long-term impact of research and innovation projects on member states can be challenging, particularly when outcomes are not immediately visible.
- **Funding and investment in innovation** remain ongoing challenges. Member states have varying levels of investment in research and development (R&D), leading to imbalances in innovation capacity. COMCEC must work to encourage increased investment in R&D across all member states.

These challenges highlight the complexities involved in advancing research and innovation within a diverse group of countries. Overcoming these challenges requires strategic planning, effective coordination, and sustained commitment from all stakeholders involved.



## **Shaping the Future: Strategies for Research and Innovation in OIC Member Countries**

To advance research and innovation among OIC Member Countries, the OIC shall work on two strategic approaches:

### **First: Capitalize on OIC Islamic Core Values**

To effectively translate the Islamic core values of the OIC, rooted in Maqasid al-Shariah, into actionable strategies, the organization should capitalize on the growing global focus on sustainability and Environmental, Social, and Governance (ESG) initiatives. By leveraging the unique foundation of the Islamic economy and finance, which is deeply based on Maqasid principles, and by building upon existing initiatives such as Value-Based Intermediation (VBI), of the Central Bank of Malaysia, the Socially Responsible Investment (SRI), Islamic Finance Framework in Türkiye, Islamic Social Finance Initiatives in Indonesia, and the Tayyib Concept initiated by INCEIF University and MIFC, the OIC can significantly enhance the impact of Maqasid-based solutions by considering the key strategic actions:

To effectively operationalize the Maqasid principles and drive sustainability and ethical practices within the Islamic finance sector, the OIC should implement several strategic actions. This includes raising awareness of the Maqasid concept through nationwide outreach programs, educational initiatives, and leveraging digital platforms. Strengthening collaborations with domestic, regional, and international stakeholders, as well as media outlets, will amplify the message across various sectors. Assessing existing initiatives through industry surveys can help identify and prioritize quick wins within the current ecosystem.

Developing a comprehensive Maqasid Implementation Roadmap with clear timelines and milestones will guide the integration of Maqasid principles into the Islamic finance industry. Establishing annual Maqasid Key Performance Indicators (KPIs) will allow for the measurement of progress and impact, while a Maqasid scoring mechanism will enhance transparency and accountability. Improving disclosure practices to align with both Maqasid principles and global best practices in sustainability reporting will ensure integrity and quality. (SRI, 2014, VBI 2018, ISRA-MIFC Tayyib 2024)

### **Second: Optimizing OIC's Strengths for Greater Impact**

Optimizing OIC's strengths for greater impact necessitate a multifaceted approach that leverages the organization's existing capabilities while strategically enhancing areas that require improvement. To achieve this, several key actions are essential. This includes:

- Standardizing data collection practices across member states and establishing centralized data repositories will improve the availability and quality of data, supporting more accurate research outcomes and effective policymaking. Promoting innovation through hubs and incubators, coupled with offering recognition and incentives for research excellence, will cultivate a culture of creativity and entrepreneurship.

- Aligning research initiatives with the UN's Sustainable Development Goals (SDGs) ensures that these efforts contribute to broader global objectives, fostering sustainability. Rigorous long-term planning, monitoring, and evaluation will be vital in ensuring that these initiatives have a lasting positive impact on the member states' socio-economic development.
- Advocate for increased investment in research and development (R&D) from its member states and international partners, which could provide sustainable financing for long-term projects.
- Maximizing capacity building by offering scholarships, fellowships, and training programs for researchers and innovators from member countries can help build a robust talent pool. Therefore, ensure that research and innovation organs have access to the most advanced expertise to conduct high-quality and impactful research.
- Hosting annual conferences focused on advanced themes of research and innovation can encourage knowledge dissemination and best practices and provide a platform for scholars and practitioners to share their findings and best practices with a wider audience.
- Publishing Research Findings: COMCEC could establish journals or other publications that highlight research conducted within its member states. This would help disseminate knowledge more broadly and encourage further research.
- Implementing robust monitoring and impact assessment tools to evaluate the effectiveness of Maqasid-based financial solutions. Transparency in reporting the outcomes is key to ensuring these solutions contribute to long-term sustainable development goals.
- Leveraging International Partnerships by building partnerships with international organizations, academic institutions, and research bodies to bring in new perspectives and resources. Additionally studying successful research and innovation models from around the world and adapting them to the specific context of OIC member countries can enhance the effectiveness of COMCEC's initiatives.
- Implementing robust monitoring and impact assessment tools to help evaluate how well these solutions contribute to the long-term sustainable development goals of OIC countries.
- Fostering transparency in reporting to allow stakeholders to be fully informed about the social, economic, and environmental impacts of their investments, thereby enhancing accountability and trust in these financial projects. (OIC, 2023)

By focusing on these strategies, OIC can strengthen its role as a leader in research and innovation within the Islamic world, ultimately contributing to the socioeconomic development of its member states and the broader global community.

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## Financing Transport Infrastructure using Public-Private Partnerships in the OIC Member Countries

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### Abstract

Transport infrastructure plays a critical role in the economic and social development of both developed and developing countries. Efficient transport systems not only facilitate trade, economic growth, and regional connectivity but also improve social inclusion and quality of life. The Islamic Development Bank (IsDB), with its Member Countries, has tailored its approach to meet the diverse transport needs of its members, from expanding urban public transport in middle-income regions to improving rural access and regional corridors in developing countries.

Guided by its Transport Sector Policy, the IsDB finances transport infrastructure to improve access to disadvantaged areas, support disaster recovery, enhance transport efficiency, promote regional connectivity, and foster green transport systems. To date, IsDB has invested over \$15 billion in transport projects, making transport the largest sector in its portfolio. These investments span roads, railways, ports, and airports, addressing the diverse needs of different regions.

Public-Private Partnerships (PPPs) are increasingly used by IsDB to finance transport infrastructure. Since 2006, IsDB has supported 8 PPP transport projects with a total cost of \$5.4 billion, with IsDB financing of \$1.09 billion and a Co-Financing Ratio of 4.95x. The average leverage ratio for these projects was 66%. These projects, often structured as Design-Build-Finance-Operate-Maintain (DBFOM) contracts, are delivered through various PPP models such as Build-Operate-Transfer (BOT), using either government-funded (Government-Pay PPP) or user-funded (User-Pay PPP) structures.

The paper discusses the various policy and design considerations in selecting the best PPP model for transport projects, and shares the lessons learned and suggested improvements to ensure resilient project structures, sustainable concession fees, the achievement of additional benefits, and better asset handover strategies. These insights help ensure that transport PPP projects are not only economically and financially successful, but also deliver on their broader developmental goals.

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## 1. IsDB's Role in Developing Transport Sector in Member Countries

Transport is a vital economic sector but also a complex industry covering infrastructure, operation, maintenance, vehicles and technology. This industry is growing rapidly due to the economic growth, rising per capita incomes, increased mobility needs, trade globalization, deregulation, privatization of the transport infrastructure, and services, and rapid technological progress including AI.

Transport infrastructure is vital to the economic and social development of both developed and developing countries as can be seen from its direct impact on:

### ***Economic Growth:***

Efficient transport systems facilitate the movement of goods and people, which boosts trade and commerce and lead to increased economic activity and job creation.

*Social Inclusion:* Good transport infrastructure ensures that people have access to essential services such as education, healthcare, and employment opportunities. This is especially important in developing countries where many people rely on public transport.

### ***Connectivity:***

Transportation connects rural and urban areas, making it easier for goods and people to move. This helps in reducing regional disparities and promotes balanced regional development. Regional connectivity also enables neighboring countries to interact and trade.

### ***Climate Action:***

Modern and resilient transport infrastructure helps countries to be more sustainable and reduce carbon emissions and overall helps countries meet their climate goals.

### ***Quality of Life:***

Efficient transport systems improve safety and reduce congestion, emissions, travel time and costs, leading to a better quality of life for users.

The Islamic Development Bank (IsDB) has 57 Member Countries (MCs) around the world with significant variances in transport needs across regions and sub regions. For example, in sub-Saharan Africa, the main needs are to complete national and regional road and rail corridors, improve rural access and strengthen the maintenance of existing road assets. However, in Middle East, North Africa and South-East Asia, where many MCs have reached middle income or higher-middle-income status, the transport needs include urban public transport improvement, expansion of ports, airports and railways with a focus on green technologies and climate resilience. In central and southern Asia, the priority is to improve access to ports and markets through the development of regional road and rail corridors.

To address these very different needs, the IsDB, guided by its Transport Sector Policy provides tailored solutions for each country. The Bank provides financing to transport sector through public, private and Public-Private Partnership (PPP) entities guided by the five pillars of the Bank's Transport Policy:

- 1- Support **universal, affordable access** in countries and parts of countries that are poor and disadvantaged.
- 2- Supporting **disaster and post-conflict reconstruction** in the transport sector. This will help affected MCs to reconstruct their essential transport infrastructure and ultimately support economic recovery and help to restore living standards.
- 3- Support for **efficient transport systems**, including investments to improve the efficiency and competitiveness of high-volume transport systems in order to optimize the use of resources and enable economic growth.
- 4- Support for **regional connectivity** including financing of high-volume regional transport corridors and streamlining of procedures and logistics arrangements for border crossings, contributing to growth in trade.
- 5- Supporting **green transport** in MCs that wish to transform their transport systems to reduce adverse environmental impacts.

In designing its transport sector interventions, the Bank also provides support to countries beyond the physical construction of infrastructure to assist countries in the critical areas of asset sustainability, road safety, social and environmental sustainability, climate change, and capacity development.

This pragmatic approach to transport sector financing and development is evident in the Bank's allocation of its financial resources to the transport sector. With over \$15 billion, the transport sector ranks first among all sectors accounting for 24% of the Bank's total financing since its inception. These investments include projects that enhance connectivity, promote economic growth, and improve the quality of life for communities in all MCs, including roads, railways, ports, and airports.

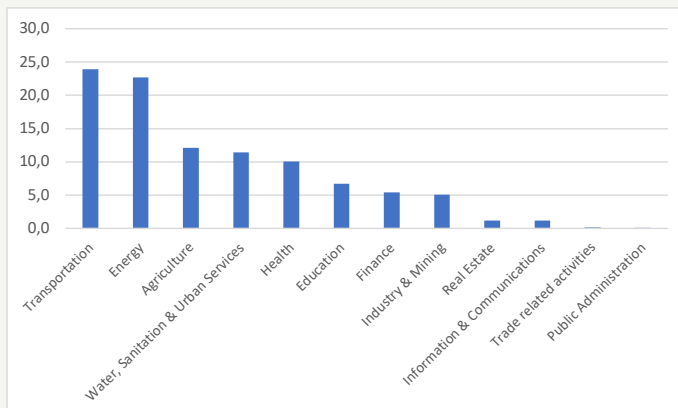


**Figure 1. IsDB's Sectoral Distribution of Operations Since Its Inception (as of June 2024)**

The Bank's transport project portfolio includes 456 projects covering all modes of transport as shown in Figure 2, with the majority going to roads (66.23%) and railways (17.42%), followed by ports (7.61%), airports (4.44%) and multimodal transport (4.30%).

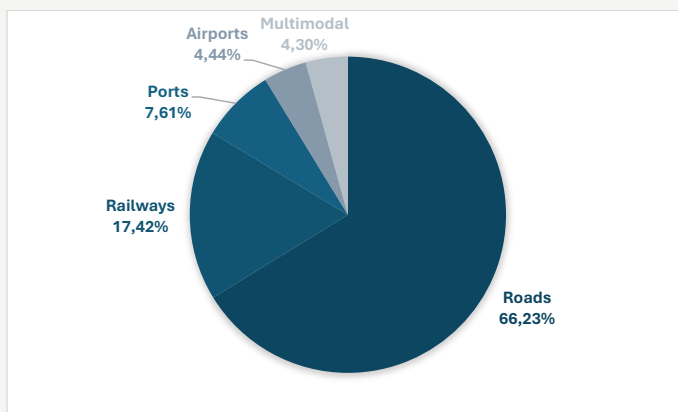


**Figure 2. IsDB's Transport Project Portfolio Approvals with Modes**

Financing infrastructure projects through PPP modalities is relatively new in the Bank's 50 years of operations. It started in 2006 with a current portfolio of 73 projects and a total financing of \$5.73 billion, including 8 transport projects with financing of \$1.09 billion (19.02%).



In response to demand from MCs, the IsDB has expanded its support for private sector transport projects and PPPs, considering country circumstances and readiness. Before considering financing PPP transport projects, IsDB explores opportunities in MCs and prioritizes countries with conducive policies and appropriate legal frameworks, institutional capacity and governance. IsDB also helps MCs to enhance institutional capacities and strengthen their policy frameworks for transport PPPs to improve the potential for future PPP investments and South-South cooperation.

The IsDB also plays a role in mobilizing resources beyond its own capital resources by working with its traditional co-financing partners among the MDBs and members of the Arab Coordination Group, IsDB explores options to attract additional Islamic co-financing for transport projects, including from private Islamic commercial banks and pension funds.

As part of its commitments to MCs, the IsDB strives to diversify its Islamic financing instruments in the transport operations to reduce transaction costs and preparation and implementation times.

## 2. Types of PPP modalities used in Transport sector projects

New infrastructure projects procured under Public-Private Partnership (PPP) modality are usually structured as Design, Build, Finance, Operate and Maintain (DBFOM) contracts, meaning that the private party is required to:

- finance the development of an asset from its own funds and funds raised from financial institutions at its own risk,
- maintain and operate the asset, and
- manage the asset's lifecycle including associated costs.

The DBFOM modality of procuring transport infrastructure assets can be further divided into several different PPP contracts such as Build-Operate-Transfer (BOT), Build-Own-Operate-Transfer (BOOT), Build-Transfer-Operate (BTO), where the difference is mainly reflected in the ownership of the asset and the timing of its transfer back to the Government.

Transport PPP projects are mostly procured under the BOT contract. The main reason for that is the requirement to always keep ownership of the asset with the Government due to the national importance of assets such as highways, airports, ports and railways. It is important to note that formal ownership is never transferred from the Government, however, the private party is granted rights of use for a specified period of time. These rights come to an end at the expiry of the term upon which the private party is required to hand over the assets to the Government or its designated Authority.

In addition to the contractual PPP modality that describes the private party's obligations, Transport PPP projects may be further described by the way revenues are generated. There are two main approaches: one where the project receives prescribed payments from the Government (government pay PPP) and one where revenues are generated from the market or users of the asset (user pay PPP or concession).

When governments opt to provide clarity and predictability on the amount of revenue the project would generate, they prefer to use the government pay PPP model. Payments are eventually undertaken by the government itself or by one of its designated authorities. In this model, the end beneficiaries use the assets either for free or for a charge payable to the government, depending on the pricing/subsidy policy of the government. These government payments are usually called "availability payments" because they revolve around performance, which is usually measured by the availability (usability) of the asset for use by the end beneficiaries.

When Governments choose to transfer the right to collect fees directly from the users of the asset, it follows the user-pay PPP model or a concession. In this case, the government essentially allows the concessionaire (private party) to commercialize the use of the asset. Considering that this approach brings more uncertainty about the size of revenues that the project will generate, financiers require a detailed study of the market risk (e.g. traffic volume forecasts) to assess the level of revenue that the project can be expected to generate.

Since the user-pay PPP model is characterized by its commercial attractiveness, governments charge a price for giving up on the rights to use the asset by charging a concession fee from the project. The concession fee is calculated as a percentage of the project's annual revenues.

Another common model for transport PPPs is a combination of the two approaches described above. In this approach, the private party collects fees directly from the users of the asset, however if these revenues are less than an agreed minimum (i.e. envisaged and planned at the beginning of the project), then the government commits to make a top-up payment to the private party. This top-up payment is called "minimum revenue guarantee" (e.g. related to minimum traffic guarantee) and serves as a level of revenue for the project company guaranteed by the government. However, to ensure some risk sharing, in case the actual revenue is higher, then the excess revenue is shared between the project company and the government. This approach is mostly used for highway projects.

The IsDB has been financing Transport PPP projects using a variety of PPP types and models as shown in Table 1.

**Table 1. Transport PPP projects and types and models**

| Project alias | Country      | Transport type | PPP type | PPP model      |
|---------------|--------------|----------------|----------|----------------|
| Alpha         | Djibouti     | Port           | BOT      | User-Pay       |
| Beta          | Jordan       | Airport        | BOT      | User-Pay       |
| Gamma         | Kazakhstan   | Highway        | BOT      | Government-Pay |
| Delta         | Malaysia     | Highway        | BOT      | User-Pay       |
| Epsilon       | Malaysia     | Highway        | BOT      | User-Pay       |
| Zeta          | Saudi Arabia | Airport        | BTO      | User-Pay       |
| Eta           | Senegal      | Airport        | BOT      | User-Pay       |
| Theta         | Türkiye      | Highway        | BOT      | Government-Pay |

In addition, IsDB has financed several non-sovereign transport projects, however these were not structured as PPPs. Therefore, the discussion in this paper is limited to lessons learned from the experience of financing transport PPP projects in OIC/IsDB member countries.

### **3. Conclusion**

The financing of several Transport PPP projects in IsDB member countries allowed the Bank to draw lessons and identify several important factors for a project's success. This paper elaborates, with some details, on key lessons and offers suggestions for discussion to the community of Development Finance Institutions (DFIs) and governments of IsDB member countries to enhance their PPP financing experience. These lessons are grouped into four main categories:

#### **A. Project's Structural Resilience & Sustainability**

In general, PPP projects have a long Project agreement/concession term (typically 15-30 years). During this period, many events occur that may put any project party at disadvantage compared to the initial set of assumptions. It is usual practice for Project Agreements to be meticulously designed to address these concerns by providing detailed risk allocation matrices, calculation formulae, adjustments and payment dynamics that all parties can rely on. This makes the Project Agreement "bankable" in the eyes of all parties (equity investors, debt financiers and governments) which makes Project Agreements "watertight".

However, project agreements cannot envisage all possible outcomes. Adding more possible events and scenarios can only make them more complex and difficult to structure and approve. While current level of detail in such agreements is commendable, parties to PPP projects need to think in different directions.

As a result of the inability to specify everything in the project agreement, some projects (especially Transport PPPs) faced tremendous challenges when the unexpected event of the Covid-19 pandemic broke out in 2020, causing prolonged lockdown measures on the movement of people and goods.

That came as a surprise to companies and governments, which started facing unprecedented levels of challenge while being unsure how to deal with it effectively. Insurance companies refused to accept the event as a force majeure and suddenly equity investors, debt financiers and governments in PPP projects each began to set up separate camps and consider strategies to safeguard their own interests only. Unfortunately, the perspective became short-term for all project parties.

To counter the impacts of the Covid-19 pandemic, projects “begged” for cooperation. Unfortunately, the initial shock of the Pandemic left everybody in defensive mode for a prolonged time at a crucial moment when everyone needed to be more cooperative to find creative solutions and support each other for the long-term success of the partnership. Therefore, one of the many lessons learned during the Covid-19 pandemic is that project agreements need to go one step further and define a set of principles that would always govern a PPP project and that can be used to govern the relationship and the interest of each party in the project.

These core principles are referred to as the “Overarching Core Principles of Partnership” and revolve around the following key considerations:

- **Project’s Mission** - definition of the intended developmental impact as well as minimum required impact that can be a threshold used to design measures at all times.
- **Project’s Key Success Factors** – prioritization of what success means for the project – scenarios on thresholds of success in achieving project’s mission.
- **Expected Return Balance** – the expected returns for each party should be disclosed in the project agreement by using relevant metrics (Economic IRR & Equity IRR) which would become one of the core principles of this partnership and would be a benchmark for all future amendments to the project agreement if needed.

The key to including “Overarching Core Principles of Partnership” in project agreements would ensure better resilience and sustainability of a project to various external events that may put the entire project at risk. In case of need, these principles may guide the parties to be “in the same camp” and focus on the intended project’s impact rather than each focusing on maximizing their own commercial gains.



## B. Concession Fee Sensitivity

Financing transport infrastructure through the user-pay PPP model is suitable for commercially attractive assets and carries an inherent demand/market risk. This risk affects the projects in two ways: negatively if actual revenues turn out to be *lower* than what was projected in the base case at the project start, or positively if actual project revenues turn out to be *higher* than projected. To benefit from the success of the user-pay transport PPP projects, governments usually charge a fixed concession fee, which is a percentage of the annual revenues generated by the project throughout the concession period.

There is no universal percentage usually charged by the governments as each project carries its own set of assumptions that influence the concession fee decision. However, the fee eventually represents an important source for governments' budgets as well as a key determinant in evaluation of other concession terms. These public sector incomes also mitigate the negative perception that PPP projects favor the private sector over the public sector as they turn often poorly managed, loss-making public sector assets (e.g. airports and ports) into efficient and profitable projects for the government.

Considering that the concession fee is a fixed percentage of annual revenues of the project, it is not designed to adapt to various circumstances that the project may face. For example, the percentage typically remains the same whether project revenues are higher or lower than anticipated in the original base case.

In circumstances where revenues are lower than expected, a user-pay transport PPP project may face tremendous challenges caused by fixed expenses pending to be paid such as scheduled debt service, lifecycle expenses and other fixed operating costs considering that the concession fee percentage remains the same. Therefore, it is imperative that governments become open to the possibility of designing a *sliding mechanism* for the concession fee in project agreements including a total freeze on its payment if required by objective circumstances of the project. In that case, the funds held in the accounts of the project company would need to be used in a controlled manner to recover the usability of the asset and increase its competitive advantage, so as to restore revenues to the base case assumptions.

The opposite is being observed in some countries, where the governments prioritize the payment of the concession fee even if this puts the project at risk of default in the short to medium term. The sensitivity of all parties should be focused on preserving the project, not only because of the large investment already made but also because of its developmental impact.

The original value-for-money analysis that supported the decision to procure the project through a PPP cannot be disregarded. However, if revenues are lower than expected, it means that the concession fee is also lower and value-for-money has already taken a hit. The only long-term solution in those circumstances would be to work towards the recovery of the project's revenue generating capabilities and to adopt a "do something" mindset.

## C. Leveraging Capital-Intensive Projects for Additionalities

The construction of a transport PPP project is capital intensive and requires the use of expensive and sophisticated technology especially when it comes to construction and the operation of airports, tunnels, bridges, ports and railways.

Countries usually invite bidders through open competitive tendering process and international bidding procedure. Depending on the size and complexity of a project, the capital required to undertake the construction and operation of a transport PPP project may be provided by a few selected large construction companies that have the required experience, technology and other resources.

In the context of IsDB's member countries, the lack of experienced and resourceful companies adequate for the size of the PPP project, countries opt for engaging foreign construction companies to perform these works. Some important questions for governments to consider during the evaluation of the construction and PPP contracts are: are there additional values that the country could achieve besides the constructed asset? and ii) are there other intangible assets the selected concessionaire and/or contractor could provide, funded or supported by affiliated agencies from the concessionaire's country of origin?

When selecting a contractor or concessionaire, governments should look for additionalities that would complement the project's mission and broaden the project's expected direct impact. More specifically, governments should require bidders and concessionaires to add various initiatives to their bids that would complement their typical focused bid for the project with, for example, initiatives related to the project's supply chain. These initiatives would target the project's supply chain-related investments, transfer of knowledge and expertise, and general capacity building. For example, the construction of a transport PPP project may be complemented by technical assistance and investment into setting up a complementary industry that provides necessary supply of materials and other requirements for the construction and operation of the project. This would add to the sustainability of the entire industry connected to the project in an attempt to learn and grow.

The Islamic Development Bank's flagship Reverse Linkage Program is one option that could be used to implement such modalities. Reverse Linkage is a technical cooperation mechanism introduced by the Islamic Development Bank to facilitate the transfer of knowledge and expertise, as well as sharing of best practices among partnering IsDB member countries. Intra-OIC cooperation on a transport PPP project, which would be designed considering the "Overarching Core Principles of Partnership" could arrange Reverse Linkage opportunities in addition to the core project definition between the project's host country and the Bidder's country of origin that would significantly increase the overall impact of the project, i.e. the project mission.

It is important to clarify that this idea does not require limiting the procurement options to IsDB Member Countries only, as the procurement would still be open to international competitive bidding process.

## D. Handover of Transport PPP Assets to Governments

All Transport PPP projects are structured with the handover requirement at the end of the project agreement term. The handover requirements are specified in detail in the Project Agreement and include the identification of necessary works to restore the quality of the asset to the required level, the performance of these works and the full handover of the assets and the manuals by the contractor/concessionaire for operation by the government or its designated authority.

Despite the detailed prescription for the handover process in the project agreement and with the exception of some more experienced countries, governments in general are not ready to accept the handover. Based on real-life experience with transport PPP projects financed by IsDB and nearing the end of the project agreement term, it is noticeable that governments often seek alternative solutions that would delay the handover process. Most of the time, they contemplate extension of the term with the existing concessionaire, which may become a burden on the government due to its weaker negotiating position as a result of the reduced number of options in its repertoire. Governments often find themselves not ready to take over the assets. What should the governments do in this case?

There are two important lessons in this regard. First, it is important for governments to decide, based on detailed technical, legal and financial considerations, whether they see benefits in taking over the operations at the time of handover or whether there would be more benefit in continuing the arrangement with the private party. Second, the government should prepare for two possible scenarios:

- a) In case the government decides to take the asset over and operate the asset from the date of handover, it needs to rely on the quality of the handover process set out in the project agreement. Considering that governments have not operated the asset for a long time by then, there may be significant problems in taking over. Therefore, it would be useful if the entire handover process is considered slightly differently in new project agreements. The new handover procedure would require a gradual handover to occur. Instead of having an exact date for handover, the obligation of the concessionaire should start much earlier with an obligation to gradually involve representatives of the government authority in charge of the asset to progressively get introduced in the operations of the project. While the performance requirement would still be the responsibility of the private party, the “on-the-job training” would begin earlier including certification and capacity building.
- b) In the alternative case, where the Government decides to continue with the private party involvement, it would be necessary to launch a new tender process earlier, at least 3-4 years before the handover date, so that the tender process as well as a new operator are hired at least 2 years before the end of the original concession term to ensure a smooth handover and continued operations of the asset.

While governments are usually most comfortable with the existing concessionaire since they have known each other for quite a long time, it should be noted that concessionaires and their shareholders are private parties seeking to maximize their commercial interests. Therefore, governments need to proactively protect their interests by ensuring that the assets do not become too expensive for the users.

## The Effects of ICT in Enhancing Trade Cooperation in the OIC Member Countries

***Dr. Lotfali AGHEL<sup>1</sup>***

### Abstract

Civilization has experienced at least four socio-economic revolutions. The agricultural revolution, industrialization, information explosion, and AI revolution have changed human lives dramatically during long development history. Since the 2000s, the developments in Information and Communication Technology (ICT) have accelerated economic growth in both developing and developed regions. The Organization of Islamic Countries (OIC) with its considerable population plays an important role in international trade. This paper attempts to examine the impact of ICT on trade in the OIC. To do this, a panel data of 52 countries is constructed for the period of 2000-2022, including economic growth and physical investment as control variables. After conducting unit root and co-integration tests, the estimation of the research model by fixed effects approach indicated that ICT, economic growth and investment have positive and significant effects on trade. The findings imply that the expansion of ICT has significantly promoted international trade in the OIC.

### 1. Introduction

Technology is composed of two parts of “Techno” and “logy”. The first part refers to machinery and equipment developed from the application of scientific knowledge, or technique and know-how. It also denotes the collection of techniques, skills, methods and processes used in the production of goods or services or in attaining scientific objectives. The second indicates the tracking of argument and recognition of specified phenomenon. Due to scientific achievements, there are considerable technology forms in the research areas. Agro-technology, bio-technology, cyto-technology, electro-technology, geo-technology, micro-technology, nano-technology, psycho-technology, radio-technology are some of the new technologies.

Information and Communication Technology (ICT) relates to gather and process data, and reproduce and disseminate of information in all areas of socioeconomic, cultural and even political subjects. Economic sectors benefit from the outputs of ICT. Consumption, production, distribution and trade are main grounds of using ICT. International trade contains the inflows and outflows of goods and services, customs procedures, logistics processes, insurance contracts, etc. Through the classification of the harmonic system (HS), ICT helps to provide detailed information on price, quantity and quality of products. Nowadays, 8-digit HS codes are symbols of international trade, so that there is an exact definition for every traded good at the global level.

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Member Countries of OIC are located in MENA (Middle East and North Africa) and South Asia, Southeast Europe and South America. Total area of the Member Countries is over than 31 million km<sup>2</sup>, and they have a population over than 2 billion people. In terms of linguistic and ethnic sects, there is a relatively rich diversity in this bloc. Persian, Turkish, Azerbaijani, Arabic, Urdu, Afghan, Uzbek and some other nationalities comprise the whole identity of OIC.

Common cultural, religious, and historical values shape and strengthen commercial ties among the OIC Member Countries. Most OIC Member countries are neighbors, and trade flows are easy with minimal transport costs. In addition, some OIC member countries are oil-abundant, and energy supply is not difficult in this region.

This paper tries to reply to the question of how ICT affects trade relations in OIC. In the first glance, it seems that ICT facilitates trade flows through reducing administrative procedures, providing price and brand information, and decreasing transaction costs.

## 2. Theory

Baldwin (2016) believes that ICT and increasing trade flows are key drivers of the *New Globalization*. However, trade liberalization is of high costs in entering foreign markets, thus the competitive firms can involve in trade (Melitz, 2003). ICT contributes to firms' internationalization by reducing the transaction costs linked to uncertainty (Abramovsky and Griffith, 2006) and increasing the efficiency of the logistics process (World Bank, 2016). This results in lower trade costs and higher trade flows. The statistical facts confirm the link between ICT and trade in the globalization trend. Global exports increased from 26.1 to 30.2 as a percentage of world GDP during 2000-2014, while internet users as a percentage of the total population grew from almost 7 to 401 (World Bank, 2016).

According to Demirkan et al (2009), ICT has altered traditional concepts of distance and leading to a new idiom of the "death of distance." Geographic distance typically reduces trade flows between countries, but ICT can overcome geographic distance. ICT reduces the costs associated with conducting international trade between distant countries.

According to Arbabian et al (2016), ICT is one of the most important economic and industrial development factors in countries and especially high-tech industries. It is highly effective in promoting and growing industries and in overtaking other competitors in the global economy.

The availability and use of ICT enhances trade by reducing transaction costs and through network effects that materialize when both trading partners are advanced users of ICT (Mattes et al, 2012). ICT is a dynamic and important knowledge-based factor, and trade leads to socio-economic change. The speed and spread of knowledge transfer has increased following ICT expansion in the world especially since the early 1980s.

According to Arrow (1969), individuals and nations did not have the same opportunities to transfer knowledge. On the contrary, Baldwin (2016), in his theory of *New Globalization*, highlights an unprecedented growth in trade flows due to elimination of the cost of moving ideas through ICT.

As a result, tacit and codified knowledge are important in the production process, but knowledge stocks differ across countries (Hausmann et al., 2014). Hence, both the growth of trade flows and trade specialization through the application of knowledge are vital elements of economic development.

In the natural evolution of knowledge, there are substantial differences across regions and countries. Some of these changes are due to the impact of ICT on trade. The ICT-based differences influence productivity and trade patterns (Caselli and Coleman, 2001).

Researchers studying the effects of ICT on trade (Vemuri and Siddiqi, 2009; Lin, 2015) have not paid attention to knowledge differences. Most studies have found a positive effect of ICT on trade, but they have ignored the disparities in technology diffusion (Helpman and Trajtenberg, 1998). The disparities in the diffusion of ICT between countries have been verified by ITU (2017), Clarke and Wallsten (2006) and Abeliatsky and Hilbert (2017). These studies explain the asymmetric diffusion of ICT in terms of GDP per capita. This macro-economic variable is the result of interaction between the supply and demand side of each economy. In this regard, knowledge and information are the main drivers of supply-side (Comin and Mestieri, 2014), so any positive shock to ICT causes economic value-added.

In neo-classical economy, labor, capital and even land are the explanatory factors of economic growth, in such a way the higher capital and more labor can promote economic growth, however the world experiences considerable achievements in some countries with low levels of labor, capital and land. As an alternative for exogenous economic growth models, a line of thinking has been emerged from 1990s.

The theory of endogenous growth assumes knowledge as an economic growth factor (Romer, 1990; Grossman and Helpman, 1991). Knowledge explains much of the disparity in GDP per capita (Hanushek et al., 2017). In addition, differences in terms of technology and knowledge justify the effects of ICTs on trade (Wang and Li, 2017).

ICT is one of the most important areas that stimulates the economic development in today's globalized world. It promotes technological developments in worldwide communication and manufacturing systems, as well as economic growth and development (Soomro et al, 2022). Many economic activities, such as international trade and foreign direct investment (FDI), rely heavily on contemporary information and communication technologies (ICTs). Competitiveness is crucial in international trade and the ICT-trade nexus promotes competitiveness (Soylu et al, 2023).

The use of ICT contributes to the fall of trade costs. The extent of use of Internet by the business community helps to international trade. The export flows between countries differ for different technology groups of products, from high-tech to low-tech (Yushkova, 2014).

### 3. Literature Review

The link between ICT use and trade flows has been widely analyzed in the literature. The bilateral trade flows and geographic distance data were examined for 175 different countries using a gravity model (Demirkan et al, 2009). The results indicated that greater bilateral trade flow occurs between countries with higher internet use. In addition, ICT use has a more positive impact on bilateral trade flows between large economies than it does for smaller economies.

The effects of the deployment and use of ICT infrastructure at the national level on trade flows were assessed within and between the European Union (EU) and its main trading partners (Mattes et al, 2012). The empirical analysis using gravity model suggested that ICT has a significant impact on EU trade. In addition, there is a trade diversion from less to highly ICT developed countries.

The effects of ICT on international trade were studied in emerging markets using panel data for forty emerging market economies (EMEs) from 1995 to 2010 (Liu and Nath, 2013). The results indicated that internet subscriptions and internet hosts affect significantly and positively both exports and imports in EMEs. Thus, the trade-enhancing effect of ICT does not depend on ICT infrastructure or ICT capability per se but on its use.

The role of ICT in industrial trade was analyzed based on the level of technology using a panel data of 18 main trading partners of Iran during 2000-2011 (Arbabian et al, 2016). The results pointed out a positive and significant impact of ICT on the business model of these countries. Also, the impact of ICT on trade in high-tech industries was higher than low-tech industries trade and the development of ICT compensated the negative effect of geographical distance and increased the volume of trade between countries.

The impacts of ICT on international trade between Türkiye and its trading partners were examined using an extended gravity model (Ozcan, 2018). In this study, the effects of four ICT indices on Turkish bilateral exports and imports were analyzed with static and dynamic panel data models for the period 2000–2014. The sample included 35 countries importing Turkish goods and 34 countries exporting goods to Türkiye. Based on the results, ICT had a positive and significant impact on both Turkish import and export volumes.

In a research, the effects of ICT on growth of transport value added were investigated among the selected Middle-East countries, and a panel data model over the period 2000-2014 was applied (Agheli and Hashemi, 2018). ICT penetration ratio was a proxy variable for ICT. The findings confirmed that labor is active driver of transport sector; machinery and transport equipment and ICT penetration ratio have significant positive effects on value added of transport sector.

The asymmetric effects of ICT, proxied by internet usage, on trade were analyzed by considering product complexity differences between countries. For this purpose, a structural gravity model of bilateral trade was estimated in a panel data of 120 countries over the period 2000–2014 (Rodríguez-Crespo and Martínez-Zarzoso, 2019). The results indicated that differences in knowledge produce more heterogeneous coefficients for the target variables than differences by income level. As a result, economic complexity affects the relationship between ICT and trade.

The impact of ICT on trade in services were studied by Luong & Nguyen (2021). ICT was measured by four dimensions, including the subscriptions to broadband, fixed telephones, mobile phones and internet. Using a modified gravity model and estimating a panel data model with 200 countries over the period 2005-2015, they found that all four dimensions have a significant impact on the expansion of trade in services.

The dynamic relationships between FDI, ICT, trade openness, and economic growth were examined in the context of the BRICS countries from 2000 to 2018 by Soomro et al (2022), in which Gross Domestic Product (GDP) was the dependent variable, and telephone subscriptions, mobile subscriptions, broadband subscriptions, internet subscribers, secure internet servers, trade, and foreign direct investment (FDI) were the independent variables. The application of a Generalized Method of Moments (GMM) indicated that ICT has a positive impact on the economic growth for a few countries. Trade openness and foreign direct investment, on the other hand, have a negative impact on economic growth.

In the age of digital globalization, ICT and international trade are the engines of economic growth. The impact of ICT use and greater trade openness on Tunisia's economic growth was analyzed by employing a cross-section augmented autoregressive distributed lag (CS-ARDL) model and applying Dumitrescu and Hurlin Granger causality test in a panel of 14 economic sectors during 1995–2018 (Dahmani et al, 2022). The results show that use of ICT has a long-term relationship with value added and increased economic growth in Tunisia. In addition, trade openness and gross fixed capital formation have positive and significant effects on economic growth.

In a panel of 17 EU countries over the period 2007-2020 and using mobile phones and fixed telephone usage as ICT indicators, Soylu et al (2023) found that

- the interaction of trade and ICT boost competitiveness;
- the effect of mobile phone is consistent across the full, East, and West European samples;
- the interaction effect is also significant across the conditional distribution of competitiveness; and mobile phones and fixed broadband usage reveal “leapfrog” effect across the quintiles.



## 4. Methodology

This paper uses a descriptive-analytical method to answer the key question mentioned in the introduction. Theory and literature have been described by a documentary study with reference to written and online sources. In this section, the data are first analyzed, and their statistical properties are summarized. Then, a panel data model is specified, econometric tests are presented, and results of model estimation are given.

### 4.1. Data

The case of study includes all of OIC member countries. The statistical data covers the period 2000-2022. All data were extracted from the World Bank online dataset. The variables of interest are Trade (% of GDP); Economic growth (EG), measured by annual change in GDP at constant 2015 prices; the ICT variable, and gross fixed capital formation (% of GDP), denoted by INV.

ICT variable is sum of three following indicators:

- a. Fixed Broadband Subscriptions per 100 People [FBS]
- b. Fixed Telephone Subscriptions per 100 People [FTS]
- c. Mobile cellular subscriptions (per 100 people) (MCS)

So, ICT can be written as follows:

$$ICT = FBS + FTS + MCS$$

Table 1 reports the descriptive statistics in terms of common sample. Trade as a percentage of GDP is on average 75%. Its maximum and minimum have been recorded as about 340% and 3% respectively. This variable has positive skewness, and relatively high kurtosis, and for these reasons, it has no normal distribution, based on Jarque-Bera criterion.

Economic growth (annual percentage in GDP), EG, is of almost 4% mean. Maximum and minimum values of economic growth are about 153% and -58%, respectively. Based on the measures of skewness and kurtosis and finally the Jarque-Bera criterion, EG is not normally distributed.

The average of ICT indicator is almost 92 per 100 people. This variable has maximum and minimum about 278 and 1,4, respectively. In addition, skewness, kurtosis and the Jarque-Bera criterion indicate no normal distribution for this indicator.

Investment (% of GDP) has a mean of near 23%. Its maximum and minimum values are close to 52% and 1.2%, respectively. Like the previous three variables, this variable also has a non-normal distribution.

**Table 1. Summary of variables' descriptive statistics**

| Variable            | TRADE   | EG       | ICT    | INV   |
|---------------------|---------|----------|--------|-------|
| <b>Parameter</b>    |         |          |        |       |
| <b>Mean</b>         | 74.80   | 3.96     | 91.55  | 22.96 |
| <b>Median</b>       | 65.03   | 4.32     | 87.85  | 22.44 |
| <b>Max</b>          | 340.19  | 153.49   | 278.41 | 52.42 |
| <b>Min</b>          | 2.69    | -58.32   | 1.37   | 1.23  |
| <b>Std. Dev.</b>    | 40.38   | 8.06     | 51.91  | 7.43  |
| <b>Skewness</b>     | 2.21    | 7.65     | 0.46   | 0.44  |
| <b>Kurtosis</b>     | 11.19   | 161.59   | 2.99   | 4.08  |
| <b>Jarque-Bera</b>  | 3063.52 | 896952.6 | 30.02  | 68.84 |
| <b>Probability</b>  | 0.00    | 0.00     | 0.00   | 0.00  |
| <b>Observations</b> | 848*    | 848      | 848    | 848   |

\*Due to missing data, total panel observations are less than 57\*23=1311.

## 4.2. Model

According to the available appropriate data, theory and literature review, a very simple econometric model is specified below to explain the trade of OIC member countries:

$$\text{TRADE} = f(\text{EG}, \text{ICT}, \text{INV}) \quad (1)$$

Due to missing data, this model has an unbalanced panel data structure. The first step in estimating model 1 is to assure a non-spurious regression, which is followed by testing unit root in panel data. Here, Levin, Lin & Chu (2002) test is applied for checking stationary of variables. As Table 2 show, except for EG, other variables have unit root in level forms, and they reach stationary by the first differencing. In other words, these variables are integrated of degree one, I (1).

**Table 2. Summary of Panel common unit root test**

| Variable        | Levin, Lin & Chu t-Statistic | Prob. | Cross-sections | Obs. |
|-----------------|------------------------------|-------|----------------|------|
| <b>TRADE</b>    | -0.92                        | 0.18  | 54             | 1150 |
| <b>D(TRADE)</b> | -20.25                       | 0.00  | 53             | 1093 |
| <b>EG</b>       | -22.12                       | 0.00  | 57             | 1287 |
| <b>ICT</b>      | -0.84                        | 0.19  | 56             | 924  |
| <b>D(ICT)</b>   | -16.0022                     | 0.00  | 56             | 847  |
| <b>INV</b>      | 198.07                       | 1.00  | 52             | 1081 |
| <b>D(INV)</b>   | -22.29                       | 0.00  | 50             | 1024 |

The next step is to test for panel co-integration between variables. This is usually done by Kao (1999) or Pedroni (1995) residual co-integration test. This paper has used Kao residual co-integration test, and has applied Akaike (2011) information criterion. The result is given in Table 3, which indicates co-integration among the considered variables.

**Table 3. Summary of Kao Residual Co-integration Test**

|     | t-Statistic | Prob.  |
|-----|-------------|--------|
| ADF | 3.62        | 0.0001 |

At the net stage, the estimation strategy is selected in terms of pooled or panel specification. This selection is made using Leamer's (1983) F-test for checking redundant fixed effects. This test assumes that the panel framework is redundant, and if the null hypothesis is rejected, Model 1 should be estimated in a pooled structure. The results of the redundant fixed effects tests in Table 4 imply that Model 1 can be estimated in a panel data form.

**Table 4. Results of Redundant Fixed Effects Tests**

| Test cross-section and period fixed effects |           |          |       |
|---------------------------------------------|-----------|----------|-------|
| Effects Test                                | Statistic | d.f.     | Prob. |
| Cross-section F                             | 104.09    | (51,771) | 0.00  |
| Cross-section Chi-square                    | 1751.13   | 51       | 0.00  |
| Period F                                    | 5.35      | (22,771) | 0.00  |
| Period Chi-square                           | 120.48    | 22       | 0.00  |
| Cross-Section/Period F                      | 80.09     | (73,771) | 0.00  |
| Cross-Section/Period Chi-square             | 1823.06   | 73       | 0.00  |

**Note:** d.f. and prob. mean degree of freedom and probability, respectively.

The Hausman (1978) test is the final test in the process of estimating model 1. Here, the null hypothesis is based on estimating panel model by considering random effects. The Chi-Sq. statistic for testing cross-sectional random effects is about 8.30 with a probability level of 0.04. This result indicates the rejection

of the null hypothesis at 5% level of significance.

## 5. Results and Discussion

After carrying out the necessary pre-estimation tests, Model 1 is estimated in fixed effects format and results are presented in Table 5. First of all, the results are generally consistent with theoretical fundamentals, and coefficients of regressors (explanatory variables) are of correct signs. Overall, coefficients of economic growth (EG), ICT and Investment (INV) are positive and statistically significant (at 1% level of significance). If economic growth increases by 1%, the trade of OIC Member Countries will increase about 0.29%, other things being equal. Similarly, one-unit increase in ICT indicator leads to nearly 0.09% increase in intra-OIC trade, *ceteris paribus*. This main result is consistent with the findings of many researchers such as Demirkan et al (2009), Mattes et al (2012), Liu and Nath (2013), Arbabian et al (2016), Ozcan (2018) and Luong and Nguyen (2021). In addition, if all other conditions are kept fixed, one percent change in share of investment in GDP leads to an almost 0.51% increase in trade.

The measures of goodness of fit are convincing. The adjusted R-squared is 0.88 and RMSE (Root Mean Square Error) is about 13.12. The F-statistic and its probability imply the whole significance of estimated model, so results are satisfactory and robust.

**Table 5. Results of Model Estimation (Dependent Variable: TRADE)**

| Sample: 2000-2022, Periods: 23, Cross-sections: 52, Total panel observations: 848 |       |                        |         |                  |
|-----------------------------------------------------------------------------------|-------|------------------------|---------|------------------|
| Var.                                                                              | Coef. | Std. Error             | t-Stat. | Prob.            |
| C                                                                                 | 53.03 | 3.51                   | 15.09   | 0.000            |
| EG                                                                                | 0.29  | 0.06                   | 4.67    | 0.000            |
| ICT                                                                               | 0.09  | 0.03                   | 3.23    | 0.001            |
| INV                                                                               | 0.51  | 0.10                   | 4.94    | 0.000            |
| Root MSE                                                                          | 13.12 | R-squared              |         | 0.894            |
| Mean dependent var.                                                               | 74.80 | Adjusted R-squared     |         | 0.88             |
| Akaike info criterion                                                             | 8.17  | Schwarz info criterion |         | 8.59             |
| Durbin-Watson stat                                                                | 0.52  | F-statistic (Prob.)    |         | 85.89<br>(0.000) |

**Note 1:** Specification includes both Cross-section and Period fixed effects.

**Note 2:** Var., Coef., Std. Error, t- Stat. and Prob. Denote variable, coefficient, standard error, t-statistic and probability, respectively.



## 6. Conclusion

Using panel data for 52 of the OIC Member Countries over the period 2000-2022, the link between ICT and trade was examined. A set of variables (the economic growth, ICT, and physical investment) was used to explain trade. The results indicate that such variables can predict trade variations. Consistent with previous research, ICT can boost trade, however the role of economic growth and investment should not be neglected. In other words, ICT expansion should be accompanied with other national policies in order to guarantee a high level of socioeconomic development.

Both theoretical foundations and empirical evidences confirm the interdependence between trade and economic growth. In general, the open economies with multiple trade partners experience higher growth rates. In this regard, new instruments and technologies can drive the international trade. Simplification of customs' protocols, reduction of transport and insurance costs, online tracking of shipments, reduction of paper-based documents, facilitation of commercial negotiations and meetings, effective web-based marketing and advertising, ability to monitor price, model, color and technical characteristics of goods, and also promotion of supporting services such as banking, warehousing, transporting and tourism are among the benefits of using ICT in international trade.

According to the Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC), OIC Member Countries has over than 2 billion people in 2023<sup>2</sup>. This enormous population can both consume and produce the different goods and services. In other words, the OIC Member Countries have potential advantages in playing active role in the world trade. There may be numerous solutions for boosting inter- and intra-trade. The focus of this paper is on upgrading ICT infrastructure and requirements. More specifically, the OIC Member Countries should facilitate access to internet, electronic-based business platforms, and social space and increase the ICT literacy. The less-regulated web platforms are currently accelerators of domestic and international trade and its sub-sectors such as transport and customs. As a result, well-developed internet and social networks promote the inter-trade and intra-trade relations. Finally, it should be stressed that improving the ICT infrastructure and the training of ICT agents, in addition to physical investment in trade facilities, lead to higher growth in trade of goods and services.

<sup>2</sup> <https://www.sesric.org/oicstat.php>

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## The Effects of Enhancing Rural Mobility in Increasing Social Development in the OIC Member Countries

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### 1. Introduction

Rural mobility is a key driver of social and economic development in rural areas, especially in underdeveloped regions where access to critical activities and services such as employment, healthcare, and education is often limited. In the Organization of Islamic Cooperation (OIC) Member Countries, a notable portion of the population live in rural areas, facing significant challenges related to poverty, isolation, and limited accessibility to fundamental services. Therefore, enhancing rural mobility, through new investments in transportation infrastructure and improved transport services, offers great potential to strengthen the living conditions in these communities and ensure both social and economic development.

Rural mobility is an important issue for the OIC framework. Most notably, the first of the three principles of the Strategy of the Standing Committee for Economic and Commercial Cooperation of the Organization of Islamic Cooperation (COMCEC) is “enhancing mobility”. In addition, COMCEC underlines that transportation is one of the three priority sectors along with agriculture and tourism. Thirdly, transport is one of the six areas of cooperation in the COMCEC strategy, and it is directly linked to another priority area, namely poverty alleviation.

The OIC Member Countries are very diverse in terms of income, population, location, and land area, which inevitably shapes their rural mobility needs. On the one side, there is a group of Sub-Saharan OIC Member Countries, which lack much of the basic rural road network they are heavily in need of. On the other side, ferry services are the key elements of rural mobility in countries like Indonesia and Bangladesh. Likewise, countries with the highest GDP per capita (mostly oil producing), and the low-income countries meet under the OIC framework, which affect their degree of financial constraints and the amounts of funds to be allocated to rural mobility projects. Such a big diversification brings new challenges in drawing general conclusions and developing public policies. Rather, it calls for tailor-made solutions through a case-by-case approach.

The second section of this study summarizes how enhancing rural mobility can stimulate economic and social development indicators such as poverty reduction, income growth and access to health and education. The third section discusses which parameters and dimensions how we should use to measure and evaluate the rural mobility. The fourth and final section touches on the common mistakes and policy implications for rural mobility.

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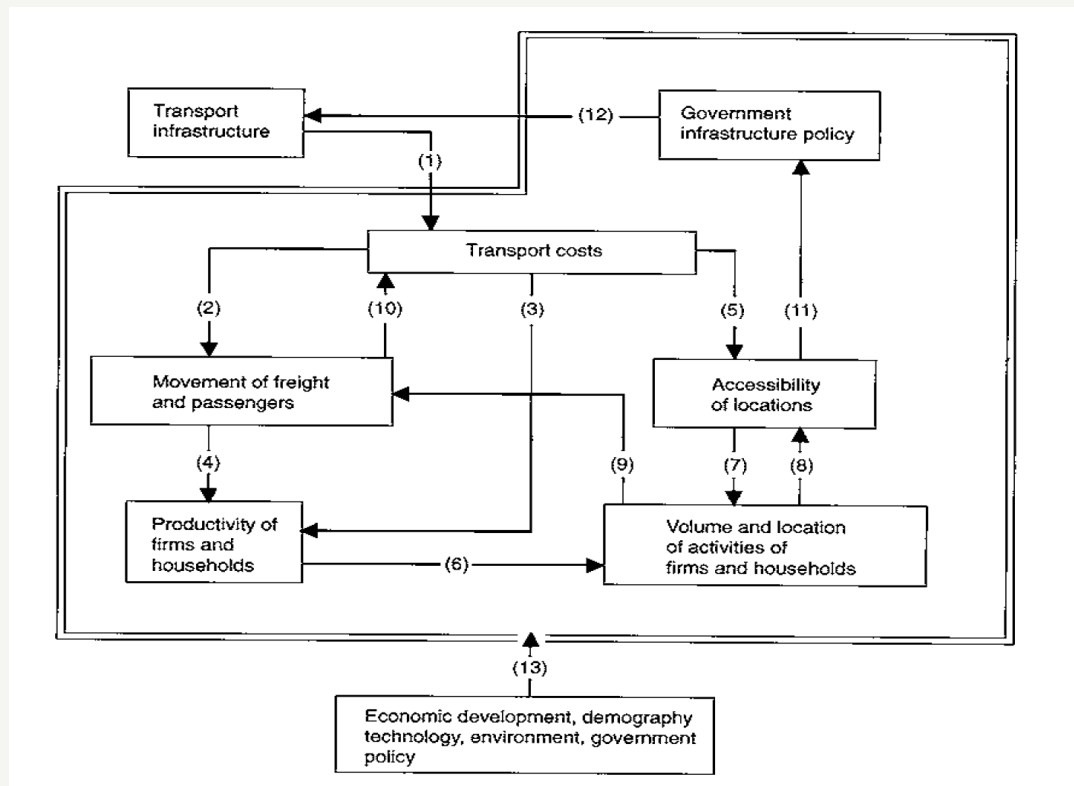
## 2. The Conceptual Framework and Literature Review on Rural Mobility

Before looking at the economic and social impacts of rural mobility, it will be briefly discussed how an enhanced transport system creates regional benefits.

Bruinsma et al. (1997) explain in a systematic way how an improvement in transport infrastructure contributes to the economic development of a region (Figure 1). When an improvement happens in a transportation infrastructure, travel costs decreases as the travel distance or the average speed goes up (relation 1). The mode, route, and timing of transport can be changed to achieve cost savings (relation 2).

In the area where the transportation infrastructure is improved, efficiency (Relations 3 and 4) and accessibility (Relation 5) are increased by the decrease in transportation costs, resulting in a shift in the mobility behaviour. This causes the region's population to rise in addition to the growth in economic activity (Relation 6 and 7).

**Figure 1: How transport improvement leads to regional economic development**



**Source:** (Bruinsma et al., 1997)

The development of transportation infrastructure has some indirect effects in addition to the direct ones listed above. Accessibility is affected by the improvements in infrastructure investment because they encourage businesses to relocate (Relation 8). The transportation of freight and passengers is affected by changes in the firm locations, which in turn influences transportation costs (Relation 10).

Government policies change in response to the shift in accessibility, and new initiatives are made in the area of transportation infrastructure (Relations 11 and 12). Lastly, a number of factors including technology, the economy, demography, the environment and public policy influence the extent to which transport infrastructure and economic activity are related (Relation 13).

Rural roads are essential infrastructure that have a significant impact on the socio-economic development of rural areas. They facilitate access to markets, education, healthcare, and other essential services, contributing to poverty alleviation and economic growth.

First, improved rural mobility leads to enhanced economic outcomes, where such outcomes can be measured through a couple of parameters such as poverty reduction, job creation and income growth. In a World Bank discussion paper, Gannon and Liu (1997) explore how lack of mobility restricts access to economic opportunities and services for the rural poor from a poverty point of view. They argue that poor transport connectivity isolates rural communities, making it difficult for residents to access education, healthcare, and markets. The paper highlights that improved transport can reduce poverty by reducing travel costs, expanding job opportunities, and facilitating the movement of goods. However, the study also points out that transport improvements need to be a part of broader rural development strategies to be most effective in reducing poverty.

Jacoby (2000) uses data from Nepal to assess the impact of rural roads on access to the markets and household welfare. By employing a nonparametric approach, the study documents that proximity to roads significantly reduces transportation costs and enhances market access, leading to higher agricultural profits and household consumption. The research highlights that the poorest households benefit the most from road access because they face the highest initial barriers to market participation.

Fan et al. (2002) analyse the impact of public investment in rural infrastructure, including roads, on poverty and inequality in China. The findings suggest that investments in rural roads have the highest returns in terms of poverty reduction through enhanced access to markets, reduced transportation costs, and facilitated the flow of goods and labour between rural and urban areas, compared to other types of public investment, such as education or health.

Using survey data from Ethiopia, Zambia, and Vietnam, Bryceson et al. (2008) attempt to figure out the effect of rural roads on poverty reduction. The authors point out that rural roads can contribute to social and economic development. However, some barriers, such as the ability to purchase motor vehicles or the inability to afford public transport services, can limit the extent of the benefits of mobility.

Khandker et al. (2009) evaluate how rural road development has contributed to poverty reduction in Bangladesh, based on household-level data to measure changes in income, employment, and consumption. They document that rural roads significantly reduce poverty by enhancing access to markets, increasing agricultural productivity, and facilitating non-farm employment.

After examining the economic effects of infrastructure development, including transport, on growth and income distribution, Calderon and Serven (2014) report that infrastructure improvements, particularly in transportation, lead to higher economic growth rates and reduce income inequality. They also underline that road investments disproportionately benefit the poor by lowering the cost of access to markets and services, which helps to bridge the urban-rural divide.

Another benefit of rural mobility appears in the form of improved access to health services. In a study investigating the linkage between maternal health-seeking behavior and child health outcomes in rural Nepal (with a particular focus on how transportation barriers affect the utilization of antenatal care services), Halim et al. (2011) show that poor rural mobility discourages mothers from seeking antenatal care, which negatively affects child health, including birth outcomes and infant mortality rates. On the other hand, improved transport access is associated with increased maternal attendance at health facilities, better pregnancy management, and healthier children. Focusing on sub-Saharan Africa, Porter (2014) documents cases where unreliable and costly transport limits access to emergency care, maternal health services, and regular medical consultations. Porter (2014) also claims that enhancing transport services can significantly improve health outcomes by reducing delays in seeking care, facilitating the transport of medical supplies, and enabling outreach health services. Using Geographical Information Systems (GIS), Noor et al. (2003) examine access to healthcare services in rural Kenya, particularly in the context of malaria treatment. The findings of the study show that rural road infrastructure plays a critical role in determining physical access to clinical services and poor road networks contribute to significant disparities in healthcare access, with remote communities facing the greatest challenges.

Improved educational outcome is another positive effect of rural mobility enhancements. The findings of Khandker et al. (2009) reveal that road improvements lead to higher school attendance rates in Bangladesh. A study analysing the socio-economic impact of national highways on rural population in India indicates that as a result of an upgrade in the highway network, the average school enrolment rate for children has increased to more than 90% (this ratio is 86% for the poor households), and the per capita trip rate for education has doubled (Asian Institute of Transport Development, 2011). In a complementary study on the India's rural road construction initiative, Adukia et al. (2020) show that the villages connected to markets through new roads significantly boosts educational investment, with middle school enrolment increasing by 7% within three years of road construction. In addition, children in connected villages tend to remain in school longer and perform better on standardized exams. In a research paper on how school accessibility affects academic performance in rural Taiwan, Lin et al. (2014) report that longer travel times and distances to school have a negative impact on students' academic performance in rural areas, and this effect is more pronounced among junior high school students compared to elementary students.



In terms of rural accessibility, rural roads naturally come to the mind first. However, the mobility needs of the countries can significantly vary depending on the factors such as population density, geography, topography, and climate. For some countries, inland water and maritime transport creates the backbone of the rural mobility infrastructure. When examining the rural transport challenges of the Pargas region in Finland, where ferry network is the backbone of region's accessibility, Makkonen et al. (2013) compare the transport opportunities with population distribution patterns using a modified Transit Opportunity Index (TOI) to measure accessibility.

Their findings reveal that there is a significant correlation between the population size of an island and its accessibility via the ferry network. A similar study from Uganda, an OIC Member Country, by Mbabazi (2023), estimates the social and economic contribution of ferry services connecting the national road network in Uganda. The study points out the critical importance of these ferry services in terms of accessing to essential services such as markets, healthcare, and education, particularly benefiting the isolated and underserved communities. Its findings indicate that the social value of these services, which facilitate the transport of approximately 3.2 million passengers and 1.06 million tons of cargo each year, is estimated at around \$10.95 million annually and these services create employment opportunities, equivalent to 126 full-time jobs.

Some countries attempt to solve their rural mobility problems by subsidizing regional air services. The Essential Air Service Program (EASP) of the United States (the US) is perhaps the most popular example of such efforts. The US Federal Government has been subsidizing the regional flights to and from eligible communities since 1978. In a research paper on EASP, Özcan (2014) reports that a 1% rise in air passenger traffic at EAS airports with a minimum of 1,000 annual passengers was associated with a 0.12% increase in the per capita income of the community served by that airport. Despite these positive economic benefits, EASP attracts significant criticism, which will be addressed at the end of this study.

In some cases, rural mobility can be improved through ways other than traditional transport infrastructure. From the communication standpoint, for example, the introduction of mobile phones and the internet also significantly improve the rural mobility. Here, the focal point is not the mobility of people or goods but the mobility of information. Jensen (2007) provides one of the earliest examples of how the use of mobile phone can help improve the market performance and welfare by focusing on the fisheries sector of Kerala, India over the 1997-2001 period. His research explores how improved access to information through mobile phones affected price dispersion, waste reduction, and overall welfare in the market. Before the introduction of cell phones, Kerala's fishing industry, employing over a million people directly, was highly inefficient with significant price variation between markets and substantial waste. Fishermen were unable to observe prices in different markets while at sea, leading to inefficient market outcomes, such as excess supply in some markets and excess demand in others. The natural experiment adopted by Jensen (2007) reveals that the use of mobile phones leads to a significant reduction in price differences across markets (from 60-70% to 15% or less) resulting in an increase in income of around 8%, the complete elimination of waste of caught fish, and decrease in fish prices by 4%.

### 3. How do we measure and evaluate rural mobility?

So far, this study has covered the theoretical background and provided an overview of the evidence on the linkage between rural transport and economic and social development.

A very common myth suggests that “if you cannot measure it, you cannot manage it”. Following this approach, if we want to improve the rural mobility system, we have to measure its performance, which requires objective indicators. These indicators help policymakers and practitioners to assess not only the performance, but also the effect and the sustainability of the system.

The first group of indicators regarding the rural mobility is related to the accessibility. These indicators tell us how long and how far it takes to go to major destinations such as schools, market places, business centres, transport connection centres (local airports, intercity bus terminals, rail stations) and health services from the rural communities. We generally measure the accessibility by the total duration or the total distance of these travels. Other accessibility indicators include the frequency of the transport services, the area of the rural community, rural road density, and the percentage of rural population with access road network within a specified distance. A widely known measure for rural accessibility is the Rural Access Index (RAI), which is developed by the World Bank. It calculates the percentage of rural residents who reside two kilometres or less from an all-season road.

Another group of indicators relates to the affordability of rural mobility. The high accessibility of the rural communities can be compromised if the costs (or prices) of the rural transport services are high. In other words, the rural transport services should be affordable and should not exceed a certain percentage of the household income. Generally speaking, the rural transport operations are not financially sustainable for the private operators due to the limited demand. Therefore, governments may adopt alternative policies. In some cases, local governments may provide transport service through their own transport agencies and bear the financial losses themselves. In some other cases, they may subsidize private operators so that these private operators can offer scheduled transport services at the specified levels of fares, frequency, geographical coverage, and service quality.

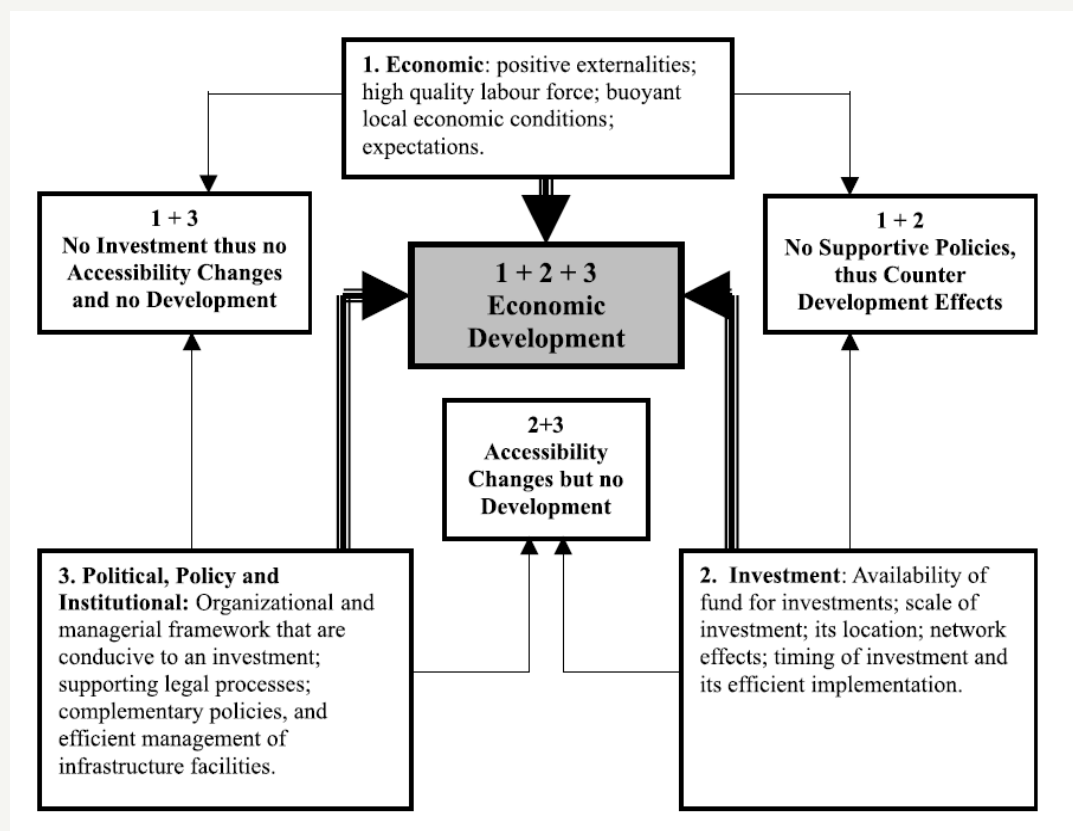
Like in any other transport service, reliability is crucial for rural mobility. Especially considering the relatively low quality of the rural transport network, harsh weather conditions can easily affect the reliability of the rural mobility. In addition, the on-time performance of the rural transit services is important as the frequency of such services is much lower when compared to those in dense urban areas. Large deviations from the announced timetables will significantly reduce their reliability and consequently, their demand.

In addition to the various dimensions of rural mobility, social, environmental and safety indicators are also critical to measure and evaluate. Low-impact transport modes should be promoted as much as possible on the sustainability side. On the other hand, rural transport services should be inclusive from the perspective of disadvantaged groups, including children, women, the elderly, and the disabled. In other words, necessary efforts should be made to encourage the ridership of such groups. Last but not least, an ideal rural mobility system should ensure traffic safety. Typical indicators include accident rates, fatality rates, and injury rates.

## 4. Conclusion

So far, we have discussed on how the improved rural mobility can enhance rural life. We have provided many evidences from the literature and underlined how governments from around the world strive to improve the rural transport infrastructure and services. In this last section, we will underline the critical public policy issues that the policy makers in the OIC should take into account when proceeding with the efforts on enhancing rural mobility.

**Figure 2: Necessary set of conditions for economic development**



**Source:** (Banister and Berechman, 2001)

The importance of rural transport infrastructure and services is beyond debate. Considering the social and economic benefits of rural mobility, governments are trying to take actions to enhance it. However, improving the rural mobility system alone may not be sufficient to achieve the expected social and economic benefits. In other words, enhanced rural mobility is not a magic stick that will solve the most of the existing economic and social problems of rural communities. Rather, it is a catalyst. Apart from the improvement in transport infrastructure and services, two additional critical prerequisite factors must be in place (Figure 2). First one is the availability of economic factors such as a skilled labour force and positive future expectations. Likewise, necessary political and institutional structures must also be available.

An improvement in rural mobility will only create the expected benefits if these two sets of factor groups provide a favourable environment. If the necessary economic conditions

are not present, an enhancement in rural mobility (together with necessary political and institutional structures) can improve accessibility but not lead to development. Likewise, an enhancement in rural mobility (together with available positive economic factors) without the necessary political and institutional structures can lead to unintended and negative consequences rather than the expected benefits. This formulation suggests that policy makers should also consider the availability of the other two sets of prerequisites when enhancing rural mobility.

Another problem regarding the efforts in enhancing rural mobility is the inefficient overfunding of the programs supporting rural mobility. In some cases, the motivation to support rural mobility programs can lead to the waste of public funds through excessive funding schemes.

**Table 1: Examples of low traffic and high subsidy cases in the EAS Program**

| Community (State)        | Average daily passenger | Subsidy per passenger (\$) |
|--------------------------|-------------------------|----------------------------|
| Visalia (California)     | 4.2                     | 173.14                     |
| Great Bend (Kansas)      | 2.5                     | 403.08                     |
| Kirksville (Missouri)    | 4.4                     | 306.42                     |
| Lewistown (Montana)      | 2.8                     | 472.78                     |
| Ponca City (Oklahoma)    | 2.6                     | 387.03                     |
| Brookings (South Dakota) | 2.5                     | 677.11                     |

**Source:** (Özcan, 2014)

In Table 1, it is illustrated the average daily enplanements in the subsidized essential air service flights and respective subsidies per passenger. In Brookings, South Dakota, there were on average 2.5 passengers on the subsidized flights and the US Federal government paid 677.11 USD for each subsidized passenger to the regional air carriers.

It should be underlined that a passenger to/from Brookings (South Dakota) also paid for his/her air ticket in addition to this 677.11 USD. Although the motivation (to subsidize the regional flights to enhance rural mobility) is correct, the result is the excessive funding that leads to inefficient operations and waste of government budget. This suggests that before starting such subsidy schemes to enhance rural mobility, the necessary needs assessment and economic impact studies should be completed.

As outlined in the literature review, rural mobility has become an important policy tool to empower the disadvantaged groups such as children, women, the elderly, and the disabled. From this perspective, the proposed programs to improve rural mobility should be inclusive of such groups. Moreover, in line with the growing sustainability concerns, non-motorised modes should be an integral part of the rural mobility policies. It should be noted that non-motorised modes are not only environmentally friendly, but also provide much more cost-effective solutions.

Last but not least, relevant rural mobility indicators, which we summarize in the Section 3, should be collected regularly to make sound and objective decisions.



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## An OIC Network of Connectivity- A Path for Development and Harmony

*Sajjad M. JASIMUDDIN<sup>1</sup>*

### Abstract

Connectivity is a major new trend of our time. Increasing connectivity among the Organization of Islamic Cooperation (OIC) Member Countries has benefits and potential among them. The paper highlights the possibility of cooperation efforts within the OIC Member Countries in the transport sector through cross-border transport connectivity. With this aim in mind, the paper proposes an idea to establish the OIC Connectivity Corridor, which will ensure greater cohesion and a strengthened OIC identity. An OIC network can focus on projects that include constructing or upgrading roads, ports, railways, pipelines and other trade-related infrastructure. We need to make an effort to build OIC connectivity corridor project with a high-speed railway connecting Türkiye, the Gulf region and other OIC Member Countries. For example, it is all about boarding/loading on a train in Istanbul and arriving/delivering in Dubai/Oman after passing through stations in Damascus, Amman, Medina, and Makkah. OIC connectivity corridor refers to overland routes connecting Türkiye to UAE and Oman through Middle East and Asia. As the OIC Member Countries become more interconnected, logistical issues will remain critical for global trade. Increasing connectivity among the OIC Member Countries will definitely increase their productivity and development. The OIC Connectivity Corridor should receive considerable attention due to its potential to enhance regional connectivity and promote economic integration. The political will of the leaders of the Islamic countries is the key for revitalizing the historical roads of connectivity.

### 1. Introduction

Connectivity is a major new trend of our time, which emerges as a key driver of future economic growth. Connectivity matters; it is an enabler of our economic and social lives. Frequent travelling in the Organization of Islamic Cooperation (OIC) Member Countries will lead to greater cohesion and a strengthened identity of Islamic Ummah. From commuting to work, visiting family and friends, and tourism to the proper functioning of global supply chains for the goods in our shops and for our industrial production. For example, European Union (EU) which ensures greater cohesion and a strengthened European identity. Free movement of people and goods across its internal borders using sophisticated transportation system is a fundamental freedom of the EU.

Increasing connectivity among the OIC Member Countries has benefits and potentials among them. The OIC Member Countries expose diverse regions in terms of their levels of resource endowments, economic development, social structures and political systems.

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The international transport sector plays a pivotal role in the global economy through increasing connectivity. It acts as the backbone of trade and the smooth movement of people across the world. The sector utilizes multiple transportation modes, each with distinct advantages. Among various modes, maritime transport is cost-effective for bulk shipments over long distances, while air transport is ideal for high-value or perishable goods that require quick delivery (Saidi et al., 2020). Road and rail transport serve as essential connectors between ports, airports, and final destinations, particularly for inland movement (Lee et al., 2024). It is wise to have several alternative routes exist parallel to ensure the smooth movement of goods and people. Otherwise, we will be stuck due to unpredictable event and crisis.

The OIC is the collective voice of over 1.5 billion people, which spread over four continents. The OIC is the second largest organization after the United Nations (UN). Since its inception in 1969, the OIC has played its role in global development and peace, addressing multifaceted social, economic and political issues. The OIC comprises 50% of the world's oil and 40% of the world's export of raw materials. According to World Bank classification, most of the OIC Member Countries come under the category of Global South. The OIC countries, particularly the Middle East, have long been a hub of natural resources (including oil and gas) and hence a contributor to international trade. Intra-OIC trade is significantly lower than his gravity equation predicted (Hassan, 2000). The OIC Member Countries need to facilitate investment and trade through the movement of capital and people and thereby promote the industrial development of Member Countries.

The economic cooperation and integration is a key objective of the OIC and the Standing Committee for Economic and Commercial Cooperation of the OIC (COMCEC). It is to be noted that COMCEC is the main multilateral economic and commercial cooperation platform of the OIC Member Countries, and it has proved to be a central forum to address the social and economic challenges faced by the Member Countries by providing solutions to them. Moreover, it contributes to increase the connectivity efforts of the Member Countries, and provides all possible means of strengthening economic and commercial cooperation among them.

For example, the volume of trade between OIC Member Countries (intra-OIC exports + intra-OIC imports) recorded a considerable increase and rising from \$556.32 billion in 2016 to \$751.5 billion in 2018, representing a rate growth of 35% (The Islamic Centre for Development of Trade, 2020). In order to facilitate intra-OIC and interregional trade, the OIC Member Countries have been proposing transport policies. In this regard, efficient transport networks will increase trade and production capacities in the OIC Member Countries, which will have positive impact on trade with other countries. These policies can concentrate in the establishment of logistics platforms such as roads, the highways, the airports, the ports in collaboration with customs, tourism offices, trade and investment promotion agencies (The Islamic Centre for Development of Trade, 2020).

## 2. An Overview of the International Transport Sector

The logistics and international transport sector remains a cornerstone of the global economy, continuously evolving to meet the demands of global trade (Scholten & Bosman, 2016). Logistics is the backbone of international trade, enabling the movement of goods from producers to consumers across the globe (Ivanov & Dolgui, 2020). In a globalized economy, where products are manufactured and sold in multiple countries, efficient logistics is vital for reducing transit times, lowering transportation costs, and ensuring timely delivery (Lee et al., 2024). Effective logistics infrastructure provides companies with a competitive edge by facilitating faster and more reliable trade (Saidi et al., 2020).

Logistics connects producers and consumers globally, enabling access to new markets and reducing costs. It also promotes economic development by creating jobs, stimulating infrastructure investment and encouraging innovation (Tollefson, 2022). As the world becomes more interconnected, logistics will remain critical for global trade, economic growth and sustainability (Scholten & Bosman, 2016; Hohenstein et al., 2015). A key function of logistics in international trade is managing cross-border complexities, such as customs regulations, documentation, tariffs, and duties. Navigating these efficiently helps companies avoid delays, additional costs, and legal issues, ensuring smooth operations (Roscoe et al., 2020; Dubey et al., 2020). Logistics also plays a crucial role in supply chain management by influencing inventory levels, production schedules, and delivery times, helping businesses respond quickly to market demands and gain a competitive advantage (Kochan & Nowicki, 2018).

Transport sector in many OIC Member Countries also has several obstacles, which have adverse effects on economic development and international trade. The major common problems faced by the Member Countries are related to infrastructure and maintenance services, low quality services and lack of competition in the transport services, delays and formalities in border crossings and inadequate capacity of transport related institutions such as ports. The substantial improvements need to be made in the transport sector of OIC Member Countries. Otherwise, they will continue to be marginalized in the global economy, which in turn will negatively affect efforts to increase trade, alleviate poverty and enhance tourism.



### 3. Roads of Connectivity – The Regional Transport Network

Today, countries are more frequently connected and closely interdependent than ever before at than ever before. Attention has been given to improving the regional transport network. Parallel to this, the Silk Road is an important strategic route in our collective history (UN Tourism (2018)). Through this road, the connection between east and west is established. The Belt and Road Initiative (BRI) is an important plan to develop two new trade routes connecting China with the rest of the world. However, the initiative is about far more than infrastructure.

According to UN Tourism (2018), “33 Silk Road Member States (Albania, Armenia, Azerbaijan, Bangladesh, Bulgaria, China, Croatia, DPR Korea, Republic of Korea, Egypt, Georgia, Greece, Indonesia, Iran, Iraq, Israel, Italy, Japan, Kazakhstan, Kyrgyzstan, Malaysia, Mongolia, Montenegro, Pakistan, Romania, San Marino, Saudi Arabia, Spain, Syria, Tajikistan, Türkiye, Turkmenistan, Ukraine and Uzbekistan (as of February 2018) from Europe, Africa, Central Asia and Asia & the Pacific, in addition to UN Tourism Affiliate Members from around the globe, work together to promote the Silk Road routes as a transnational tourism adventure”.

Recently, the India-Middle East-Europe Economic Corridor (IMEC) was initiated, among others, by the United States (US) and the EU. The announcement of an important proposed trade corridor will link India and Greece via Saudi Arabia, the UAE, Jordan, and Israel. It is seen as an alternative to China’s Belt and Road Initiative (Rizzi, 2024). It is in October 2023, the initial memorandum of understanding for IMEC – signed by the US, the EU, France, Germany, Italy, India, the UAE and Saudi Arabia – envisioned two sections: an eastern maritime link between India and the Gulf, and a northern section that would connect the Arabian Peninsula to Europe.

OIC Member Countries have to endeavor to build a global network of connectivity consisting of economic corridors, international transportation routes and information highways. We need to make an effort to build OIC connectivity project with a high-speed railway connecting Türkiye, the Gulf region and other OIC Member Countries. Boarding a train in Istanbul, and arriving in Dubai and Oman after passing through stations in Damascus, Amman, Medina, and Makkah. The implementation of the proposed project will enhance the movement of huge goods and people. Türkiye has already initiated to revive the Hejaz Railway we label it as OIC connectivity corridor.

The OIC network of connectivity can be a multimodal transport corridor connecting China to Europe via OIC Member Countries, which has been receiving elevated attention following the Russia-Ukraine war and Israel’s military aggression on Palestine. The OIC corridor links Europe through Türkiye to Oman by train crosses Syria, Jordan and Saudi Arabia. Then, there will be a maritime link between Oman and Pakistan to continue by crossing the Gulf of Oman to the Port of Gwadar (Pakistan). Using Belt and Road Initiative route that links Pakistan and China, other OIC Member Countries would be connected from China to other OIC Member Countries like Kazakhstan by rail through Dostyk or Khorgos/Altynkol, crosses Kazakhstan by rail to the Aktau Port, crosses the Caspian Sea to the Port of Baku/Alyat, and Azerbaijan.

## 4. Conclusion

Improvement of transport is a key component in economic and social development. Increasing connectivity among the OIC Member Countries will definitely increase their productivity and development. An OIC network can focus on projects that include constructing or upgrading roads, ports, railways, pipelines and other trade-related infrastructure. The OIC Connectivity Corridor received considerable attention due to its potential to enhance regional connectivity and promote economic integration. OIC connectivity refers to overland routes connecting Türkiye to UAE and Oman through Middle East Asia, as well as to Syria and Saudi Arabia, while the Belt and Road Initiative for a maritime network linking UAE/Oman to China through major port Gadawar (Pakistan). If the corridor can be established using a rail and shipping network, goods could then be shipped to Europe. Such connectivity will also be valuable for the rest of the world. Building physical infrastructure, particularly roads, railways and port facilities for the OIC Connectivity Corridor project, needs to be on the top of the agenda. In order to the successful implementation of the OIC Connectivity Corridor project, we need to pay attention to the following issues.

- Whilst connectivity brings many benefits for the people from the OIC, the political will of the leaders of the Islamic countries is the key for revitalizing the historical roads of connectivity. Without the high-level political will and the support of the heads of OIC Member Countries, the very strategic Connectivity Corridor idea can never be implemented.
- It is also important to have regional cooperation to strengthen transport networks. Connectivity Corridor project will be for fostering cohesion, reducing regional disparities as well as improving connectivity and access to the internal market for all regions remain of strategic importance at the OIC Level. As long as there is tension, mistrust or hostility among the member states will be difficult even to start discussion at the OIC level.
- It is important to reduce barriers to transport, which incorporate legal, regulatory, institutional, operational and technological issues.
- It is essential to harmonize the different initiatives undertaken by different sub-regions within the OIC Member Countries, which in some cases have resulted in conflicting legal obligations, documentation requirements and procedures.
- Connectivity among OIC Member Countries should be based on an efficient and interconnected multimodal transport system for both passengers and freight, enhanced by an affordable high-speed rail network and zero-emission vehicles. This will contribute to the good health and well-being of their citizens.
- In the end, the relevant government agencies need to provide a checklist of the most important transport-related conventions and other arrangements, which are required to be put in place to ensure efficient border-crossing movements.

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## Designing Smart Social Assistance Systems: Integrating Islamic Social Capital and Digital Technologies

**Habib AHMED<sup>1</sup>**

### 1. Introduction

The United Nations launched the Sustainable Development Goals (SDGs) in 2015 as a “shared blueprint for peace and prosperity for people and the planet, now and into the future”.<sup>2</sup> A key aspect of people-related goals concerns social protection which is defined as “a set of policies to help women, men and children reach or maintain an adequate standard of living and good health throughout their lives” (UNESCAP, 2018, p. 1). However, many countries are falling behind in achieving the SDGs in general and providing social security to their citizens. For example, UNESCAP (2018) estimates that around 60 per cent of all women, men and children in Asia and the Pacific region do not have adequate social protection.

While countries face challenges in accomplishing the SDGs, providing social protection to all the segments of the population will become more difficult in the future due to the world facing poly-crises and increased volatility, uncertainty, complexity and ambiguity (VUCA). The risks and uncertainties increased during COVID-19 and were exacerbated in the aftermath of the pandemic with geo-political unrest, supply chain shocks and inflation affecting economies negatively. The poly-crises and VUCA are expected to continue in the future with additional global uncertainties and disruptions expected from the climate crisis and environmental degradation which will likely affect lives and livelihoods of many adversely. As a result, the number of vulnerable and needy people is expected to expand considerably which will increase the demand for social services significantly.

Given that the world is expected to face poly-crisis and uncertainties in the future and the need for social assistance are likely to increase, there is a need to strengthen the social protection and assistance systems in different countries. It is important to understand the complexities and intricacies involved in designing efficient and effective social assistance programs by identifying the challenges faced in implementing them and then utilizing different approaches and tools that can resolve the challenges. Other than government agencies, public action by civil societies plays an important role in creating social opportunities needed for human development (Dreze and Sen, 1995). In this regard, religious social service institutions can be used to fulfil governmental public policy objectives.

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<sup>2</sup> <https://sdgs.un.org/goals>



Furthermore, given the era of the Fourth Industrial Revolution, digital technology can be a useful tool and must be incorporated into policy designs and systems. Social assistance programs can be made efficient and effective by using digital technology that can automate various phases of the social assistance delivery chain. For example, COMCEC (2022) provides a framework for developing an Integrated Monitoring and Information System (IMIS) that can be used by social assistance programs.

A typical Social Protection Delivery System (SPDS) has four key phases: assessing the beneficiaries, enrolling them, providing the support and services and managing them after support is provided (COMCEC, 2022; Lindert et al., 2020). While governments can benefit by using IMIS, there are some other operational challenges that public agencies face in managing social assistance systems. A few key problems can be identified with SPDS. First, most governments have many commitments that require funding and face budgetary constraints to deal with the increased demand for social assistance. A significant number of vulnerable people cannot be supported due to a lack of financial resources. For example, globally 311.3 million people from 71 countries need humanitarian assistance of which the 2024 Global Humanitarian Overview targeted 186.5 million people. This would require humanitarian assistance of US\$ 48.65 billion in assistance. However, as of July 2024, funding of US\$ 12.26 billion was received indicating a gap of more than US\$ 36 billion (Humanitarian Action, 2024). Second, a key operational challenge in the social assistance delivery chain is to identify and enroll the deserving beneficiaries. Since the prospective beneficiaries are dispersed across diverse geographical locations, it becomes very difficult and expensive to collect relevant real-time information to identify and provide assistance to them. Finally, once identified there is an issue of transferring the funds to the beneficiaries in a secure manner.

Given the above challenges, there is a need to think of ways in which the problems can be mitigated to make social assistance and delivery programs efficient and effective. This paper presents ways in which some Islamic religious institutions and digital technologies can be used to design smart social assistance programs in OIC member countries. It uses two notions of 'social capital' and argues that these can be used to overcome some of the weaknesses of public social assistance programs identified above. The first is the notion of tangible social capital in terms of Islamic social finance in the form of *zakat* and *waqf*. These instruments provide additional sources of funds and can help mitigate the resource constraints faced by social assistance programs. Second, intangible social capital residing in community-based institutions such as mosques can be used to identify and manage beneficiaries for social assistance programs. Technologically, an IMIS proposed by COMCEC (2022) can be used by SPDS contact points at mosques to input data on beneficiaries and then payments can be made to them by digital means. Thus, the paper provides a framework for developing efficient, effective and smart social assistance systems by integrating Islamic social capital and digital technology.

The paper is organized as follows. Section 2 presents the importance of social protection in inclusive development and its status in OIC member countries followed by a section that provides an overview of the social assistance and delivery system and identifies the key challenges in its implementation. After presenting the concepts of social capital in Section 4, Section 5 discusses the Islamic worldview and social capital institutions. Section 6 presents a framework of a smart social assistance system which integrates Islamic social capital and digital technology that can provide social assistance efficiently and effectively during contemporary times. The last section concludes the paper.

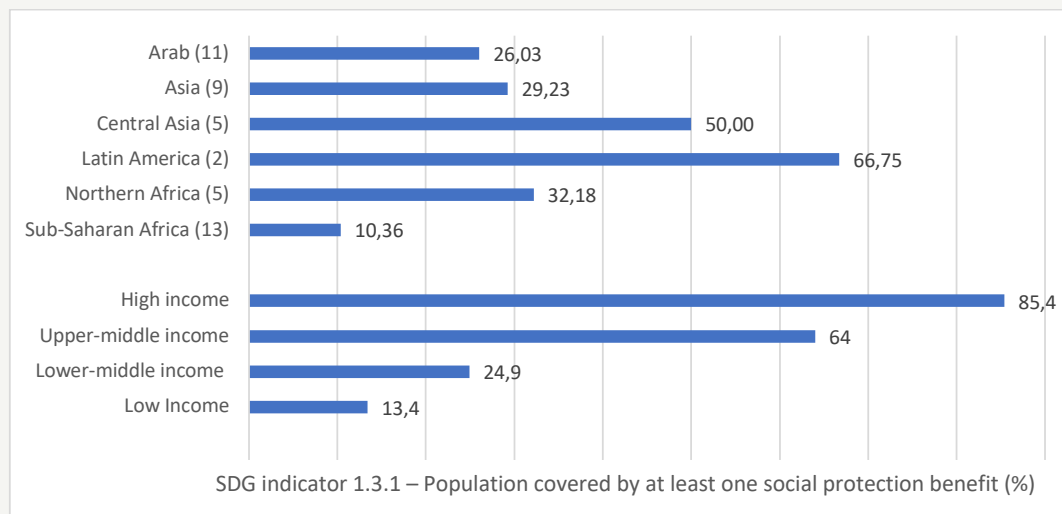
## 2. Social Protection, Inclusive Development and Status in OIC Member Countries

The global community considers social protection as a constituent of human rights and essential component of inclusive and sustainable development. Article 22 of the United Nations *Universal Declaration of Human Rights* states “Everyone, as a member of society, has the right to social security and is entitled to realization, through national effort and international co-operation and in accordance with the organization and resources of each State...” and Article 25 elaborates “Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.”<sup>3</sup> The role of social protection in inclusive development is apparent in many SDGs that are related to people-related goals. While social protection is relevant for SDG1 (No Poverty), SDG3 (Good Health and Well-being), SDG5 (Gender Equality), SDG8 (Decent Work and Economic Growth) and SDG10 (Reduced Inequalities), Target 1.3 specifically states “Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable” and Target 10.4 indicates “Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality” (ILO, undated).

The status of social protection benefits in OIC member countries in different geographical regions and corresponding global figures for different income groupings are shown in Chart 1. The chart shows that while the average score of two Latin American OIC member countries (66.75%) is higher than the average of Upper-middle Income countries (64%), the other regions’ average scores are less than the latter. The average percentage of the population covered by at least one social protection service for Sub-Saharan Africa is lowest at 10.36% followed by Arab countries (26.03%) and Asian countries (29.23%). These results of the population covered by social protection benefits indicate that there is a need to improve both the quantity and quality of social protection services and their delivery systems in these countries.

<sup>3</sup> <https://www.un.org/sites/un2.un.org/files/2021/03/udhr.pdf>

**Chart 1: Average Percentages of Population covered by at least one social protection benefit in OIC Regions and Income Groups**



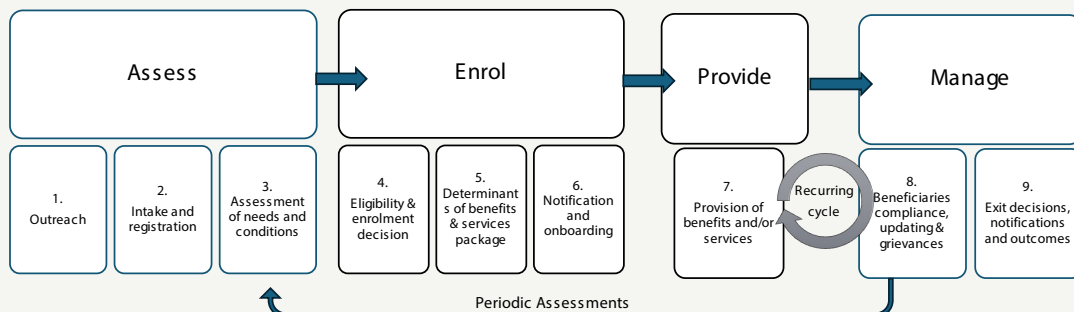
**Source:** ILO (2021).

**Note:** Figures in parentheses are the number of countries in each regional grouping.

### 3. Social Assistance and Delivery System: An Overview

Lindert et al. (2020) provide a framework for a Social Protection Delivery System (SPDS) which consists of four key stages: assess, enroll, provide, and manage. While *assess* stage includes outreach, intake and registration, and assessment of needs and conditions of the prospective beneficiaries, the *enroll* stage evaluates eligibility and enrolment decisions, determination of benefits and service package, and notification and onboarding. The *provide* stage deals with the provision of benefits and/or services and the *manage* component examines the beneficiaries' compliance, updating and grievances, and exit decisions and notifications. The elements of the components of the SPDS are shown in Figure 1 below.

**Figure 1: Stages and Elements of Social Protection Delivery Chain**



**Source:** Lindert et al. (2020: 11) and adopted by the author.

Challenges facing implementing SPDS include a lack of adequate resources to meet the demands for social assistance, informational gaps in identifying and monitoring beneficiaries and transferring funds to them in a secure manner. COMCEC (2022) suggests developing an Integrated Monitoring and Information System (IMIS) to implement the social services provisions under the framework of SPDS. The IMIS can be used efficiently in the enrolment and provision phases to transfer the information on the beneficiaries to the appropriate authorities and enable identifying eligibility by using artificial intelligence (AI) based algorithms. However, the study identifies a key challenge of using the IMIS and SPDS as “expanding outreach to new beneficiaries and dynamically updating the information on the existing beneficiaries” (COMCEC, 2022, p. 94). Since the services needed by beneficiaries change over time, the SPDS should have the capability to identify the beneficiaries and provide them with the benefits and services over changing circumstances which would require updating the system with ‘dynamic and real-time data’ (COMCEC, 2022, p. 24). While real-time data and information are required at the assessment stage to identify new beneficiaries and do a follow-up on existing beneficiaries in the *manage* stage to have the desired impact, the way this can be done efficiently has not been specified. Thus, there is a need to design SPDS that can be used to deliver social assistance efficiently and effectively. In this regard, social capital and digital technologies can be used.

#### 4. Social Capital, Civil Societies and Religious Institutions

The term social capital was introduced by Coleman (1988, p. s98) who viewed it as “the structure of relations between actors” that builds trust and is productive like other types of capital. Bankston and Zhou (2002, p. 286) define social capital as “processes of social interaction leading to constructive outcomes” and Fukuyama (2001, p.7) identifies it as “an instantiated informal norm that promotes cooperation between two or more individuals.” Other definitions of social capital include “networks of social relations that may provide individuals and groups with access to resources and supports” (PRI 2005, p.6) and “the norms and networks that facilitate collective action” (Woolcock, 1998, p.155). Social structures can build social capital through creating, informational channels and creating norms that sanction bad behavior (Greenly, 1997).

Similar to other forms of capital, social capital can help produce value by performing functions. Social capital can reduce transaction costs and promote associational life necessary for the economy’s working (Fukuyama, 2000). A higher level of social capital “improves the quantity and quality of information flows and reduces transaction costs”



(Robinson et al., 2002, p. 3). Social capital has “features of social organizations such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions” (Robinson et al., 2002, p. 4, citing Putman, 1993). Serageldin and Grootaert (2000) assert that social capital can directly affect economic growth and poverty alleviation through information sharing that can improve efficiency and reduce risks and also by coordinating activities among members of the community when dealing with contracts, hierarchies, bureaucracies, etc. Coordination builds trust and reduces opportunistic and uncoordinated behavior that can result in market failure. Furthermore, social capital can help build human capital (Coleman 1988). Given the above, social capital can be used as a policy tool to help populations that are at risk of social exclusion and to promote community development efforts (PRI, 2005, p. 2).

Civil societies play an important role in building social capital and promoting social welfare and development (Edwards and Foley, 2001; Skidmore, 2001). While civil societies can mean different things, it is a broad term that represents the third sector lying between the public and private sectors or between the state and individual (Fukuyama, 2000; Skidmore, 2001). Civil societies would include community organizations, the non-profit sector, advocacy groups, etc. Usually established by private individuals, a civil society is involved in civic engagement and its functions can be considered as public or quasi-public. Civic engagement requires a civic culture and is built on trust and social capital (Edwards and Foley, 2001). Thus, civil societies can use their social capital and accomplish specific public and social goals.

Empirical evidence shows that higher levels of social capital increase charitable giving (Brooks, 2005; Wang and Graddy, 2008). One way in which social capital enhances charitable giving is by increasing trust which is built through assurances that donations are used to create social impact. While discussions on social capital usually do not include religion, a powerful source of social capital comes from religion and associated structures and institutions. Some studies show a positive relationship between religion and social capital (Kaasa, 2012). In an empirical study of 5,398 individuals Greenly (1997) found that a significant number of the volunteers in different social sectors such as health, education, human services, environment, etc. are motivated by religious sentiments and structures.

## 5. Islamic Worldview and Social Capital Institutions

The overall aim of Shariah is to promote the welfare (*maslahah*, pl. *masalih*) of mankind and prevent harm (*mafsadah*). *Maqasid al Shariah* (objectives of Shariah) are considered essentials that constitute the basic elements of a good life. *Maqasid* constitutes safeguarding and enhancing faith (*din*), self (*nafs*), intellect (*aql*), posterity (*nasl*), and wealth (*mal*) (Chapra, 2008). Islam has instituted various institutions and practices to achieve these goals. In this regard, two types of social capital that relate to the social assistance frameworks can be identified. First, social capital is tangible in the form of social financial capital that can be used to enhance overall welfare. Islam has institutions of *zakat*, *sadaqah* and *waqf* which can help the economic emancipation of the members of the community. *Zakat* is an obligatory levy on the wealth of Muslims who have assets beyond a threshold level and *sadaqah* is voluntary charitable donations. *Waqf* is a voluntary charitable act of donating income-generating or services-producing assets that can be used by beneficiaries. While *zakat* is the obligatory redistribution of income towards the poor, the *waqf* can be used to establish social institutions that can benefit the members of the society.

The second type of Islamic social capital is intangible and exists as support networks in communities. At the societal level, the notion of *ummah* is envisaged as a religious community of piety and forms the basis of a strong community. It provides elements of social solidarity that can build nation-wide social capital. Though social capital is considered to be a relatively new concept, a similar idea can be found in the concept of *asabiyah* (group feeling or social solidarity) discussed by Ibn Khaldun (1967). The group feeling within societies not only binds the individuals but imposes order and protects individuals from transgression from both within and outside the society. Historically, mosques have been community-based spaces that generate high levels of intangible social capital. The importance of mosques in Muslim society is evident as it was the first institution established by the Prophet Mohammed (PBUH) after he migrated to Madina. A mosque was not only considered a place of worship, but a place of deliberating socio-economic issues of the community. Mosques were places of learning entailing schools and libraries and also served, in some cases, as clinics, pharmacies and courts (Laugu, 2007). Mosques were also venues for festivals and social occasions. A Muslim's family life is closely linked to the mosque as many events related to the family or life such as celebrations of birth, circumcision, marriage, and death take place in the mosque (Cesari, 2005). During major crises or concerns of the community, people gathered in the mosque to resolve their problems (Fathi, 2006).

## 6. Smart Social Assistance System: A Framework

An efficient and effective Social Protection Delivery System (SPDS) must be able to mitigate the challenges of limited government resources available relative to the huge demands for social assistance, the availability of real-time data and information of beneficiaries at the *assess* and *manage* phases and the transfer of funds to deserving beneficiaries in the *provide* phase of the social assistance delivery chain. These issues can be resolved by designing a smart SPDS that uses two types of Islamic social capital discussed above and using digital technologies to resolve information-related issues and payments to beneficiaries. The key stakeholders of smart SPDS are the governmental or public agency responsible for social assistance, the SPDS contact person at the mosque and the beneficiaries. The SPDS contact person at the mosque can be the *imams* and/or *muazzins* of mosques who work as conduits and interact with the IMIS system through smartphones or tablets which have to be provided to them. However, a female contact person may have to be appointed at the mosque to deal with female beneficiaries.

An option to resolve the problem of budgetary constraints would be to tap into the tangible social capital of *zakat* and *waqf*. The potential sizes of *zakat* and *waqf* are huge. While the estimates of global *zakat* collections vary from US\$ 200 billion to US\$ 1 trillion annually, a more reasonable estimate would be US\$300 trillion. For example, the estimate of the total *zakat* collection for Indonesia in 2020 was US\$ 21 billion (BAZNAS, 2021). Similarly, estimates of values of global *waqf* assets range from US\$100 billion to US\$ 1 trillion (World Bank et al., 2019, p. 3). The figure is likely to be on the higher side as the total potential *waqf* value in Indonesia is estimated to be US\$ 139 billion (Beik, 2022). The potential figures of tangible Islamic social capital indicate that they can be used to fill the funding gaps in social assistance programs. However, the total collections and use of funds from *zakat* and *waqf* for organized social assistance are relatively small compared to the potential. This may be partly due to the lack of trust among donors in the effectiveness of these instruments in creating impact. Thus, moving forward increasing the use *zakat* and *waqf* to support social assistance programs would require building trust by developing these institutions themselves and increasing their impact.

The constraints of having real-time data and information on beneficiaries and providing support can be resolved by employing technology and using intangible social capital that exists in mosques as centers of information and data gathering. Given that mosques are community-based spaces where people from all segments of the community frequently congregate for prayers and other educational and social activities, these institutions can be used to mitigate the problems of information gathering of vulnerable people seeking social help. The social capital residing in mosques can be used to gather information about the beneficiaries which can then be transmitted to the integrated monitoring and information system (IMIS). The beneficiaries are expected to have an IMIS-linked app on their phones that can be used to communicate with them. While an IMIS system can be used to collect and transmit data, a digital payments system can be used to transfer funds to deserving beneficiaries. The ways in which the public agency, the SPDS contact persons in mosques and beneficiaries interact with the IMIS system to facilitate the implementation of different phases of the SPDS are discussed below.

*Access:* Mosques being community-based institutions can play an important role in collecting the relevant data needed on the prospective beneficiaries. The SPDS contact person at the mosque (the *imam* and/or *muazzin*) can collect information on prospective beneficiaries and register them by entering the data into smartphones or tablets that are linked to the Integrated Monitoring and Information System (IMIS) through the cloud. Other than information on the socio-economic status of the prospective beneficiary, information on whether the applicant has a bank account will also be included. The transmitted data on the IMIS system can then be analyzed by the public agency for decision-making.

*Enroll:* The IMIS can use an artificial intelligence (AI) based algorithm to evaluate the beneficiaries and categorize them in terms of their eligibility and enrolment. The algorithm can be programmed to suggest the appropriate disbursement of benefits of services for different types of beneficiaries. An official from the agency can review the suggested intervention by the algorithm and provide final approval for onboarding the beneficiary on the IMIS system. The decision will be updated in the IMIS system and automatically transmitted to the SPDS contact person at the mosque and the beneficiary. Upon receipt of the confirmation, beneficiaries with bank accounts will provide details of the account to the SPDS contact person at the mosque for inputting into the IMIS system.

*Provide:* Once the decision of onboarding is made and the type of support is identified, the relevant public agency will take the necessary steps to distribute the benefits/services. If the support is in the form of providing funds, which is likely to be the case in most circumstances, then an SPDS beneficiary account can be opened and the allocated funds can be disbursed through digital payment systems directly to the beneficiary. Various models of electronic money and digital payment systems exist in different countries that include the following: debit/credit cards, E-wallets, mobile money accounts and payments, electronic cash, stored-value cards, mobile phone credit, etc. (Bezhovski, 2016; MEF, 2024). Depending on the digital payments infrastructure in different countries a suitable system can be used to transfer funds. For example, in cases where beneficiaries do not have bank accounts, they can be sent money as mobile phone credit which can be cashed or can be provided with unique debit cards with the allocated amounts. The beneficiaries can pick up the debit cards at the mosque which can then be used by for payments or withdrawing cash from automated teller machines (ATMs).



**Manage:** The first part of the *manage* phase involves follow-up with the beneficiaries in terms of compliance, impact, and grievances can be done at the mosques. The beneficiaries can provide the data to the contact persons in mosques (*imams/muazzins*) who can then verify the information and update the data in IMIS system through their smartphones or tablets. The relevant SPDS agencies can then decide on exit at the appropriate time and notify the decision to both the contact persons in mosques and the beneficiaries through the IMIS app.

Religious institutions such as mosques are spread around in most localities and are within reaching distance of most people. People employed in these institutions such as *imams* and *muazzins* perform religious functions such as leading prayers which use only a part of their time. Their time can be used optimally to carry out additional social assistance activities by engaging with the community members and identifying the people who need support. As indicated, one of the key challenges of creating an effective social assistance program is to have dynamic and real-time data on the beneficiaries as it is difficult and expensive for the SPDS agency to gather this information on a continuous basis. The *imams/muazzins* being close to the communities can use the intangible social capital to gather and transmit this information through digital means. This would require training the *imams/muazzins* to gather information and input the data into the smartphones/tablets that are linked to IMIS and paying them some additional amount for their services. Even if the *imams/muazzins* are paid for carrying out this additional task, it will be much cheaper and more efficient than employing separate field officers to do the same tasks. Carrying out this additional function will not only utilize their time optimally but also enable using the social capital residing in religious institutions such as mosques to help implement the social assistance programs efficiently and effectively.

## 7. Conclusion

A crucial challenge of achieving the SDGs for most countries in a world facing poly-crises and increased uncertainties and risks is to meet the needs of social protection of all segments of the population. There is a need to develop innovative frameworks and models of SPDS to meet the key constraints that these systems face which include lack of funds to meet the demands of social assistance, gathering accurate dynamic and real-time data on the beneficiaries and delivering the assistance safely. This paper argues that social capital residing in religious institutions in both tangible and intangible forms and digital technologies can be used to resolve these challenges. In particular, *zakat* and *waqf* can be tapped into to generate tangible financial social capital to support social assistance programs.

Similarly, mosques being community-based institutions possess the intangible social capital that can be used to collect information on prospective beneficiaries. While both tangible and intangible social capital existing in religious institutions are large, they are not being utilized optimally in policy-making for social security. Moving forward, an effective and efficient SPDS can be developed by integrating digital technology-based IMIS and payment systems with the social capital entailed in the religious institutions of *zakat*, *waqf* and mosques to provide essential social services to all segments of the population efficiently and effectively.



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## The Global Development Goals for the OIC Member Countries: Some Reflections

***M. Niaz ASADULLAH<sup>1</sup>***

### 1. Introduction

The world, including OIC Member Countries, has seen considerable gains in social and economic indicators during the last two decades. The transition from the Millennium Development Goals (MDGs) to the Sustainable Development Goals (SDGs) has created much optimism for coordinated progress in planetary health and social well-being. During the first 15-year-long global goals campaign (i.e. MDGs), the world including the OIC Member Countries saw a significant decline in child mortality, underweight child population, maternal mortality rate, and so on (WHO 2015). At the same time, MDGs were rightly criticized for being somewhat narrow (e.g. there was no specific target for stunting reduction, even though it is the most widely used measure of undernutrition). By way of adopting a new and expanded set of global goals and targets in 2015, the SDG campaign has created opportunities for coordinated development progress on a global scale.

While MDGs and SDGs have helped align global and national governance frameworks for ensuring progress towards sustainable development, the operationalization remains context-dependent and has evolved over time differently owing to unexpected outbreaks of conflict and pandemic. The introduction of the Millennium Development Goals in 2000 coincided with the global financial crisis of 2008, while progress during the Sustainable Development Goals (SDGs) campaign was undermined by the COVID-19 pandemic and the Ukraine war. At the same time, OIC Member Countries in MENA faced additional challenges for hosting Syrian and Palestinian refugees as well as the trade disruptions following the onset of the Israel– Hamas conflict.

These external developments have combined to create a polycrisis which has a profound impact on progress in global goals. For instance, for the first time since the introduction of the Human Development Index (HDI), 9 out of 10 countries saw a decline in their HDI value. In fact, among the 35 least developed countries (LDCs) that experienced such a decline in 2020 and/or 2021, most are OIC Member Countries and many are yet to recover to their human development levels of 2019. One OIC country that has experienced the maximum human development loss is Afghanistan, where HDI has been rolled back by ten years (UNDP 2024).

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In this context, this paper offers a brief reflection on the progress of SDGs and mutual challenges faced by the OIC Member Countries in achieving the SDGs by 2030. It concludes with a reflection on how progress (or lack thereof) in the first half of the SDGs can inform policy responses and strategies in the second half. The primary scope is limited to human development related SDGs i.e. 1-5, 8, 10 and 16. We also touch upon the best practices in the Member Countries and the common efforts of Member Countries related to the theme. In conclusion, we also provide some practical recommendations towards a strategic vision by considering the common needs of OIC Member Countries in terms of the international cooperation framework.

## 2. Changes in Global Development Goals and Governance

The transition from the MDGs to the SDGs has broadened the objective of sustainable development, from poverty reduction via economic growth and participation in the global trading system to a broader set of objectives that span three dimensions: economic, social, and environmental. The metrics for assessing development progress have also changed from the MDG-era focus on national averages and the poorest to the new SDGs targets, utilizing disaggregate data on the most marginalised and vulnerable groups.

The MDGs comprised 8 Goals, measured by 18 Targets. To achieve these, a number of new human development initiatives such as various forms of conditional cash transfers, were introduced, and developing country governments introduced poverty reduction strategy papers with a stronger commitment to the global development agenda. Yet, by 2015, most of the development goals (including 12 out of the 18 related targets) had been missed. Overall, the world achieved only 3 and a half targets. These include MDG Target 1.A (halving the proportion of people living in extreme poverty), MDG 3 (gender disparity in education), MDG Target 6.C (malaria and tuberculosis) and MDG 7 (providing access to safe drinking water). However, in contrast to achievement in Target 1.A (halving global poverty), there was regression in Target 1.B (creating jobs)<sup>2</sup>.

In some goals and indicators, despite falling short of the official target, considerable progress was achieved at a global level. These include goals related to reducing hunger, reducing the number of children out-of-school, increasing women's access to reproductive health, reducing maternal mortality, and reducing the global child mortality rate. These patterns are also broadly true for OIC Member Countries.

While some nations made commendable progress in reducing poverty and improving health and education outcomes, others have lagged behind. At the end of the MDG era, the OIC Member Countries exhibited mixed results.

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2 <https://ourworldindata.org/millennium-development-goals>



According to the UN's final report on the MDGs, significant achievements were noted in areas like primary education enrolment and gender parity in education. However, progress in reducing child mortality and improving maternal health was inconsistent across the OIC. A number of OIC Member Countries with large populations and historically high poverty rates fared well at the end of the MDGs in social indicators. This includes Indonesia and Bangladesh, while progress was mixed in other populous Muslim nations such as Pakistan (Asadullah et al 2014)<sup>3</sup>.

To build on the above trends, the SDG campaign has broadened the scope for social progress by introducing additional complementary targets. This, in turn, has created new synergies for national progress. Beyond introduction of various national programs, the SDG era has also mobilized monitoring efforts in the form of Voluntary National Reports. Therefore, OIC citizens born during the SDG campaign are expected to have benefited more from coordinated country-level shifts in government effort and diffusion of good governance practices.

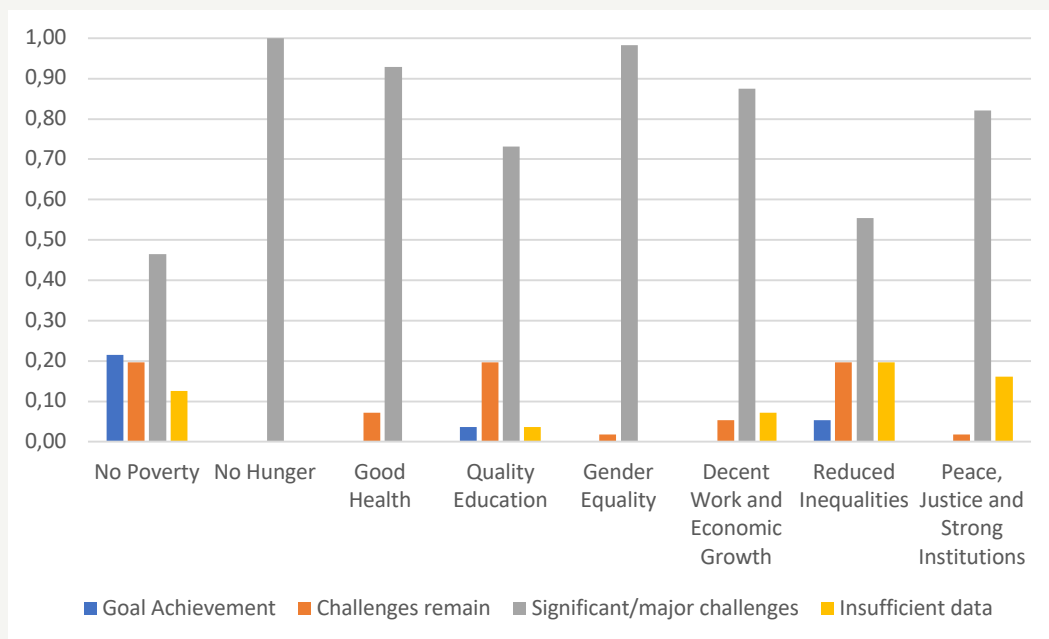
### 3. The Nature and Extent of Progress in Achieving SDGs

The United Nations' global update on progress toward meeting the SDGs presents a grim picture. At SDGs mid-point, the world is not on track to achieve most of the human development related sustainable development goals (The United Nations, 2023). Moreover, progress has been unequal at the country level. In more than 50 percent of the targets, Progress is weak and insufficient; in another 30 percent of cases, progress has stagnated or even reversed (The United Nations, 2024).

These facts also apply to OIC Member Countries. In general, oil-rich OIC countries like Saudi Arabia and Qatar have generally performed better in infrastructure-related goals due to their financial resources. On the other hand, resource-poor countries such as Somalia and Chad have struggled with basic needs like hunger and health due to limited economic means. Ongoing conflict has severely hindered progress across multiple SDGs in Yemen, particularly in hunger (SDG 2) and health (SDG 3). One exception is Nigeria, which, despite its oil wealth, has failed to deliver, leading to increasing poverty.

<sup>3</sup> Indonesia innovated schemes like the Program Keluarga Harapan (PKH) ("Family Hope Program"), the nation's first conditional cash transfer programme launched in 2007 and it is arguably the most extensive of its kind in any OIC country. The programme contributed to multidimensional poverty reduction (MDG 1 and SDG 1) by encouraging households to access certain health and education services.

**Figure 1: Progress in Human Development and Growth-Related SDGs in the OIC, 2024**



**Source:** Authors, based on data extracted from United Nations (2024).

Systematic global assessments of development progress in the OIC during the first half of the 2030 campaign is lacking. One exception is SESRIC (2023). The main conclusion is:

*“...the OIC countries group will not achieve any of the SDGs by 2030 on the current trajectory. Although progress has been observed in SDG 1 (no poverty), SDG 3 (good health and well-being), SDG 4 (quality education), SDG 6 (clean water and sanitation), SDG 7 (affordable and clean energy), SDG 9 (industry, innovation and infrastructure), SDG 14 (underwater studies), and SDG 16 (peace, justice and strong institutions), these improvements are not sufficient to achieve the relevant SDG targets by 2030.*

*Regarding SDG 2 (zero hunger), SDG 8 (decent work and economic growth), SDG 10 (reduced inequalities), SDG 11 (sustainable cities and communities), SDG 15 (life on land), and SDG 17 (partnerships), stagnant progress has been recorded for the OIC countries group, putting them off track to achieve these six SDGs.”*

However, the analysis is limited to countries with repeated data for 2010 and 2021. Therefore, in this section, we present an overview of the current state of SDG achievements extracting data from the United Nations (2024).

Figure 1 presents a summary for the 56 OIC countries as one group<sup>4</sup>. Out of the 8 SDGs considered, only 3 have at least one OIC country where the goal is expected to be achieved by 2030. To be more precise, 21%, 4% and 5% of the member countries are on track to achieve SDGs 1, 4 and 10 respectively while for each of these goals, in another 20% cases, there are some progress with challenges. For the majority, there are significant or major challenges suggesting either limited progress or even regression. Lastly, data for OIC countries are missing for 5 goals: 13%, 4%, 7%, 20% and 16% of member countries are unable to assess progress on SDGs 1, 4, 7, 10 and 16 respectively due to insufficient data.

On the other hand, there is considerable heterogeneity in SDG related achievements. Member countries differ in terms of the means to reach agreed global goals and objectives. Most countries in the Middle East and North Africa (MENA) and Central and South-East Asia are economically advanced and well-governed compared to member countries in Sub-Saharan Africa and South Asia. Unsurprisingly, the latter group has lagged behind in terms of overall progress during the SDGs era as well. To shed more light on this, Table 1 presents the data on SDG trends at the country level. A number of patterns stand out.

First, most of the OIC member countries rank very poorly in UN's SDG index. Only two member countries – Albania and Kyrgyz Republic – made it into the top 50. In fact, globally, among all countries with published and available SDG data, 35 out of the bottom 67 lowest ranked nations are OIC Members. The top 3 highest ranked OIC Member Countries as per the SDG index (Albania (Score: 75.0), Kyrgyz Republic (74.2), Tunisia (72.5)) have relatively small population. All of the top 5 populous OIC countries rank very poorly in SDG index: Indonesia (270mill; score: 69; rank 78), Pakistan (241mill, score: 57.0; rank 137); Nigeria (230mill, score: 54.6; rank 146), Bangladesh (169mill, score: 64.3; rank 107); Egypt (110mill, score: 69.1, rank 83). Interestingly, the richest 5 OIC countries' in terms of oil production also do not fare well in SDG index ranking: Saudi Arabia (8.95mill bbl./day, score: 64.9; rank 103.); Iraq (4.3mill bbl./day, score: 64.2; rank 108); Iran (4mill bbl./day, rank 86; score: 69.0); UAE (3mill, score: 70.5; rank 70), Kuwait (2.64mill bbl./day, score: 63.8; rank 111).

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<sup>4</sup> Palestine is left out due to missing data.

**Table 1: Country-wise Progress in SDGs in OIC Member Countries, 2024**

| Country              | Rank (as per SDG index) | Region              | 1: No Poverty | 2: No Hunger | 3: Good Health | 4: Quality Education | 5: Gender Equality | 8: Decent Work & Economic Growth | 10: Reduced Inequalities | 16: Peace, Justice & Strong Institutions |
|----------------------|-------------------------|---------------------|---------------|--------------|----------------|----------------------|--------------------|----------------------------------|--------------------------|------------------------------------------|
| Albania              | 42                      | E. Europe & C. Asia |               |              |                |                      |                    |                                  |                          |                                          |
| Kyrgyz Republic      | 48                      | E. Europe & C. Asia |               |              |                |                      |                    |                                  |                          |                                          |
| Tunisia              | 60                      | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| Azerbaijan           | 63                      | E. Europe & C. Asia |               |              |                |                      |                    |                                  |                          |                                          |
| Kazakhstan           | 66                      | E. Europe & C. Asia |               |              |                |                      |                    |                                  |                          |                                          |
| Maldives             | 67                      | East & South Asia   |               |              |                |                      |                    |                                  |                          |                                          |
| Morocco              | 69                      | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| United Arab Emirates | 70                      | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| Algeria              | 71                      | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| Türkiye              | 72                      | OECD                |               |              |                |                      |                    |                                  |                          |                                          |
| Suriname             | 76                      | LAC                 |               |              |                |                      |                    |                                  |                          |                                          |
| Indonesia            | 78                      | East & South Asia   |               |              |                |                      |                    |                                  |                          |                                          |
| Malaysia             | 79                      | East & South Asia   |               |              |                |                      |                    |                                  |                          |                                          |
| Uzbekistan           | 81                      | E. Europe & C. Asia |               |              |                |                      |                    |                                  |                          |                                          |
| Egypt, Arab Rep.     | 83                      | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| Jordan               | 85                      | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| Iran, Islamic Rep.   | 86                      | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| Tajikistan           | 89                      | E. Europe & C. Asia |               |              |                |                      |                    |                                  |                          |                                          |
| Turkmenistan         | 94                      | E. Europe & C. Asia |               |              |                |                      |                    |                                  |                          |                                          |
| Brunei Darussalam    | 96                      | East & South Asia   |               |              |                |                      |                    |                                  |                          |                                          |
| Guyana               | 97                      | LAC                 |               |              |                |                      |                    |                                  |                          |                                          |
| Oman                 | 100                     | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| Qatar                | 102                     | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| Saudi Arabia         | 103                     | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| Gabon                | 105                     | Sub-Saharan Africa  |               |              |                |                      |                    |                                  |                          |                                          |
| Bangladesh           | 107                     | East & South Asia   |               |              |                |                      |                    |                                  |                          |                                          |
| Iraq                 | 108                     | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| Lebanon              | 110                     | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| Kuwait               | 111                     | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| Bahrain              | 113                     | MENA                |               |              |                |                      |                    |                                  |                          |                                          |
| Senegal              | 116                     | Sub-Saharan Africa  |               |              |                |                      |                    |                                  |                          |                                          |
| Cote d'Ivoire        | 121                     | Sub-Saharan Africa  |               |              |                |                      |                    |                                  |                          |                                          |
| Togo                 | 129                     | Sub-Saharan Africa  |               |              |                |                      |                    |                                  |                          |                                          |



**Source:** Author's compilation based on United Nations (2024). Note: (i) Colour legend used is as follows: green = SDG achievement & progress on track; yellow = challenges remain & progress moderately increasing; orange = significant challenges remain & stagnating in terms of progress; red = major challenges remain & decreasing in terms of progress; grey = no data. (ii) For details on SDG index, see Lafortune et al (2018).

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## 4. Discussion

The collective performance of OIC countries is unsatisfactory but also aligned with the global trends in the SDGs: while some progress has been made, significant disparities remain. We have found that the first half of the SDG period saw limited steady improvements in social indicators, and there are also limited indications of convergence of low-income Sub-Saharan African member countries and oil-rich MENA regions in many important outcomes. Elsewhere in South Asia, in some indicators some progress has been achieved despite low income owing to socially innovative low-cost solutions. Therefore, for OIC Member Countries as a whole as per UN's mid-point assessment, there is a long way to go in the "Leaving No One Behind" agenda of eradicating income poverty by 2030.

This is despite the legacy of the United Nations' MDGs Campaign and the OIC's Ten-Year Programme of Action which together made significant contributions to advancing the Global Goals agenda in Islamic countries (Estes and Tiliouine, 2014). Despite the wealth of Islamic financial centres and oil-exporting countries of West Asia, at the end of the MDG era, most Muslims live under conditions of poverty, unemployment, illiteracy and poor health (Estes and Tiliouine 2016). Based on the experience of the first half of the SDG era, these development gaps within the OIC still have not closed. It is also evident that social gains for some countries and geographic regions remain highly variable and potentially reversible. This calls for collective and coordinated efforts across all OIC Member Countries.

Two important factors behind OIC's unsatisfactory prospects towards achieving the SDGs is the limited fiscal resources allocated to education and health and the limited effectiveness of the state in delivering public goods. SDGs were widened to acknowledge that the benefits of growth do not trickle down so that social policies must receive equal attention. For instance, despite economic growth and a decline in poverty reduction, child undernutrition remains a major challenge in many OIC countries (UNICEF et al., 2022; Asadullah and Ramachandran 2024).

To this end, both goal-specific and cross-cutting interventions are needed. This requires beefing up social spending. In fact, during the MDGs era, many OIC Member Countries overemphasised single-focused policy prescriptions such as expanding physical infrastructure for health and education either without adequate budgetary commitment or without the necessary government mechanism in place to ensure service quality. This created a hidden crisis in education during the MDG era – the phenomenon of schooling without learning (Asadullah, 2018; Pritchett 2014; World Bank 2018). In the context of SDG 4, there is no scope for reproducing past patterns as unlike MDGs, SDGs have a clear focus on service quality. Finally, academic research has also confirmed that if OIC Member Countries in South Asia were to increase government spending on education and health and state capacity to levels witnessed in other developing regions such as East Asia, they would make significant progress in achieving the SDGs (Asadullah et al., 2020). This conclusion would be also true for the vast majority of OIC Countries in Sub-Saharan Africa. Therefore, an immediate policy priority is to move away from an "economic growth first" (SDG 10 biased) strategy to the one that places a greater and more direct emphasis on human development (SDGs 1-5) and governance reforms (SDG 16).

However, for the OIC as a whole, pursuing a “human development first approach” is challenging, as SDGs are much more resource-intensive to achieve than the MDGs. Member Countries in low-income regions such as Sub-Saharan Africa and South Asia are characterised by wide gaps in social infrastructure. While progress has been made in some instances (e.g. Bangladesh), this is due to country-specific geographic conditions (e.g. dense settlement) and the availability of a vast network of non-state organizations which scaled low-cost solutions in partnership with the government. However, even this model is not sustainable in the long run. Some of the OIC countries like Bangladesh have graduated into lower middle-income category. This will limit the flow of foreign aid to finance SDG-related investments.

To address this challenge of SDG financing on the one hand, and effective implementation on the other, the OIC needs to adopt a two-pronged strategy of improved state capacity in Member Countries to raise public resources domestically. An assessment of SDG investments shortfall (i.e. needs vis-à-vis domestic revenue capacity) in resource-poor member countries can help mobilize funds from resource rich OIC members. The other policy response is an OIC wide adoption of good governance framework which can address both gaps in service quality as well as poor fiscal capacity. Many Member Countries have one of the lowest tax-to-GDP ratios in the world. Increasing domestic resources through expanding the tax base also depends on effective tax reforms.

The overall message is that, in the SDGs context, limited state capacity, as well as limited fiscal commitment, will prove to be the key obstacles and can collectively undermine much-needed resources to achieve the SDGs targets in countries at the bottom of the global SDG ranking. In these obstacles are more relevant than ever following the global slowdown in macroeconomic growth after the Covid-19 pandemic outbreak in the region. Accelerating progress towards the 2030 agenda will increasingly depend on increases in social spending and improvement in delivering quality public services. This means that, in order to consolidate the limited gains made during the first half of the SDG era, the challenge for the OIC lies in coordinating efforts to address multiple forms of public governance deficits. In sum, prioritizing progress on SDG 16 is a necessary condition for simultaneously accelerating progress on SDGs 1-5 and 8.

## 5. Strategic Vision for Accelerating SDG Progress in OIC Countries by 2030

The vast majority of the economically backward and fiscally-constrained poor OIC Member Countries face difficult trade-offs (e.g. economic growth in SDG8 etc. hindering progress on the climate action in SDG13). This, along with varying state and governance capacity and exposure to conflicts, create a complex landscape for advancing SDGs in the OIC. Due to the ongoing economic recessions in several OIC Countries, securing new resources to promote human development is essential. However, if left alone, the capacity of resource-poor and economically vulnerable member countries to align the Global Goals agenda with their national circumstances, priorities, and capacities will be limited.

After acknowledging the interconnected nature of the 17 SDGs, the question facing OIC governments is whether or not certain SDGs can be prioritized over others. Given that SDGs are a comprehensive package, this remains a highly debated question. Nonetheless, there is logic in re-emphasizing the general focus on the concept of human development as it does not necessarily imply de-prioritizing some specific SDGs. This approach can benefit most shared drivers of different SDG targets and in turn provide an effective approach to create more synergies between the different targets.

Indeed, the debate on whether some SDGs are more important than others and the associated trade-offs between the different SDGs aside, a shared policy priority is to secure the largest possible increase in the amount of public and private finance for SDGs. Therefore, considering the positive interlinkages between human development-related goals and other SDGs, the OIC can make faster progress and have a greater chance of success by prioritizing a smaller number of goals i.e. SDGs 1-5, 8 and 16.

Taking into account the common needs of OIC Member Countries in the international cooperation framework (i.e. UN's SDG campaign), this following section highlights some practical recommendations and a strategic vision for the OIC in order to achieve global goals in local contexts.

### 1. Prioritize Human Development

- Shift the focus from an “economic growth first” strategy to a “human development first” approach. This involves prioritizing SDGs related to poverty, health, education, and equity between men and women (SDGs 1-5) as well as job creation and skills development i.e. productive investment in education and training programmes to equip youth with the necessary training for emerging sectors. Moreover, some economically advanced member countries like Malaysia can serve as a hub for OIC-wide human development (Asadullah and Mansor, 2021; 2023)



## **2. Strengthen Overall and Global Goals Related Governance**

- OIC-wide governance reforms (SDG 16) with a particular emphasis on administrative and fiscal capacity of the state and improved implementation of social protection schemes. This can create a more stable foundation for sustainable job creation and skills development.
- Establish SDG-focused national bodies. Each OIC member country should establish or strengthen its dedicated agencies to oversee and coordinate SDG implementation. These bodies must have the authority to align national policies with SDG targets and ensure cross-sectorial coordination. Promote transparency and accountability in SDG progress reporting via OIC-wide adoption of Voluntary Local Reports (VLRs). Implement robust monitoring and evaluation mechanisms to track progress, identify gaps, and promote accountability in achieving the SDGs. Promote the use of data-driven decision-making and regular reporting to foster a culture of transparency. Engage in global forums. Ensure active participation of OIC member countries in global platforms that discuss and shape the SDG agenda. Advocate for the interests of OIC countries and contribute to global initiatives aimed at accelerating SDG progress.

## **3. Increase Domestic Resource Mobilization**

- Enhance the capacity of member countries to raise public resources domestically. This includes expanding the tax base through effective fiscal reforms and improving the efficiency of tax collection. An OIC-wide good governance framework can support these efforts by promoting transparency, accountability, and public participation.

## **4. Leverage OIC Solidarity for SDG Financing**

- Establish mechanisms within OIC Member Countries to mobilize funds from resource-rich member countries to support SDG investments in resource-poor countries. This can be achieved through an assessment of SDG investment shortfalls and targeted financial assistance.

## **5. Strengthen International Partnerships**

- Leverage partnerships with international organizations, donor agencies, and private sector stakeholders to secure additional funding and technical assistance. Promote South-South and triangular cooperation among OIC countries to share best practices and resources.

By adopting this strategic vision, the OIC can accelerate progress towards the 2030 Agenda, ensuring that no member state is left behind. This approach emphasizes the interconnected nature of the SDGs, recognizing that progress in one area can drive positive outcomes across multiple goals. By focusing on human development, governance reforms, and effective resource mobilization, the OIC can overcome the challenges that have hindered progress in the first half of the SDG era and move towards a more equitable and sustainable future for all its Member Countries.

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## Malnutrition in the OIC Member Countries: A Trap for Poverty

**Belgi TURAN<sup>1</sup>**

### Introduction

Malnutrition is a pervasive and complex issue affecting countries worldwide. Within the Organization of Islamic Cooperation (OIC), its impact is particularly severe, cutting across diverse economic conditions and resource levels. Despite the differences among OIC Member Countries, malnutrition remains a common challenge that exacerbates poverty and hinders sustainable development. Addressing this issue requires not only a solid understanding of the theoretical relationship between malnutrition and poverty but also an examination of current trends, shared challenges, and effective interventions. This article provides a comprehensive analysis of these elements and offers practical recommendations within a strategic framework that takes into account the shared needs and collaborative potential of OIC Member Countries.

### Current Trends and Contributing Factors

Malnutrition, encompassing undernutrition, micronutrient deficiencies, and overnutrition, is a global issue affecting millions, particularly in low- and middle-income countries.<sup>2</sup> According to the World Health Organization (WHO), nearly 735 million people were undernourished in 2022, with sub-Saharan Africa and South Asia experiencing the highest prevalence of undernourishment (FAO, 2023). Moreover, 2.4 billion people experienced moderate or severe food insecurity and 900 million people faced severe food insecurity in 2022 globally (FAO, 2023). This situation is especially critical in OIC Member Countries, many of which are situated in regions with the highest rates of malnutrition. Figure 1 illustrates the trends in undernourishment and food insecurity across OIC countries, highlighting a troubling increase in undernourishment on average among member countries over the past decade. This trend indicates a persistent and deepening food security crisis in the region. Despite significant progress in Global Hunger Index (GHI) values over the years, nearly half of the OIC Member Countries are still classified as low-income food-deficit nations by the FAO. According to the GHI classification, Yemen and Chad face an *Alarming* level of hunger, while 15 countries, including Niger, Sierra Leone, and Afghanistan, are at a *Serious* hunger level.

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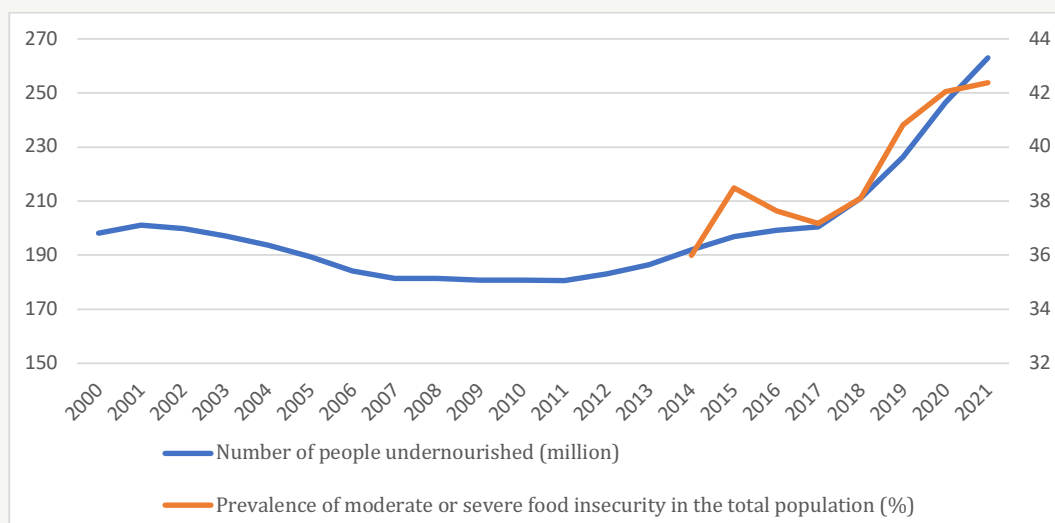
<sup>2</sup> While malnutrition also includes overnutrition, this article focuses specifically on undernourishment. However, it is important to note that obesity and diet-related non-communicable diseases (NCDs) are on the rise in some countries within the OIC region. Nations such as Saudi Arabia, Kuwait, and the United Arab Emirates have experienced rapid increases in obesity rates, particularly among women and children, due to changes in diet, lifestyle, and urbanization.



Another 14 member countries, such as Bangladesh, Indonesia, and Egypt, are classified as having a *Moderate* level of hunger. Micronutrient deficiencies, often termed “hidden hunger,” are also widespread in OIC Member Countries, with deficiencies in iron, iodine, vitamin A, and zinc leading to severe health issues, including anemia, impaired cognitive development, and increased mortality rates among children and pregnant women (OIC, 2017).

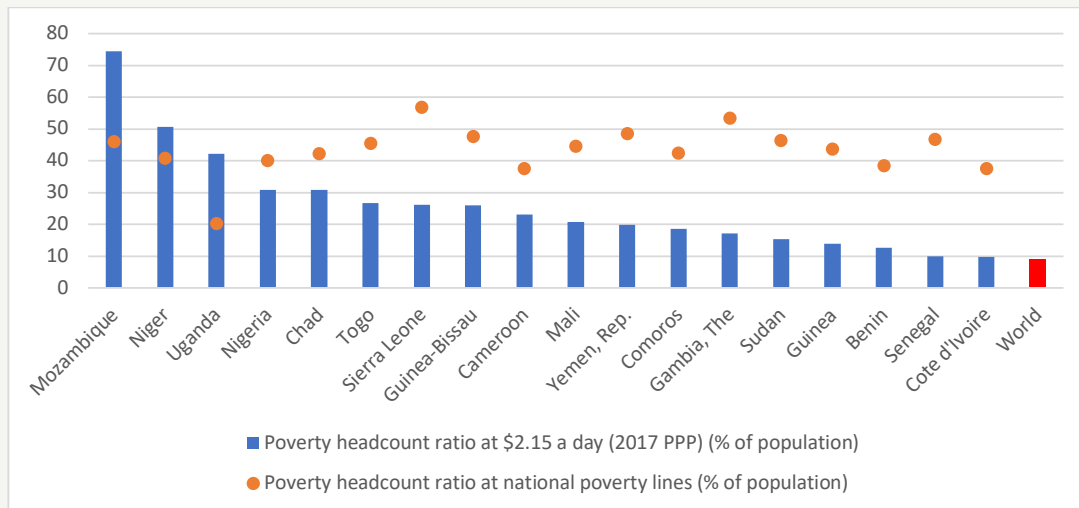
The challenges faced by OIC Member Countries in combating malnutrition are exacerbated by poverty, conflict, and climate change. Poverty is both a cause and a consequence of malnutrition, as many OIC Member Countries have large portions of their populations living below the poverty line with limited access to nutritious food. Figure 2 shows the proportion of the population living below national and international poverty lines, revealing that a significant portion of people in OIC countries is struggling with extreme poverty. Food insecurity, which is further aggravated by conflict, political instability, and economic crises, significantly drives malnutrition in these regions (Smith & Haddad, 2015; Akbulut-Yuksel et al., 2024). Prolonged conflicts and displacement in countries such as Syria, Yemen, and Afghanistan have disrupted food systems, displaced millions, and led to widespread food insecurity and malnutrition. Moreover, climate change poses an additional threat to food security and nutrition in many OIC Member Countries. The increasing frequency and severity of droughts, floods, and other extreme weather events reduce agricultural productivity and heighten the risk of malnutrition (Myers et al., 2017).

Figure 1. Prevalence of Undernourishment and Food Insecurity in OIC Countries



Source: Author's own calculations based on FAOSTAT data.

Figure 2: Population Living Under Poverty Line

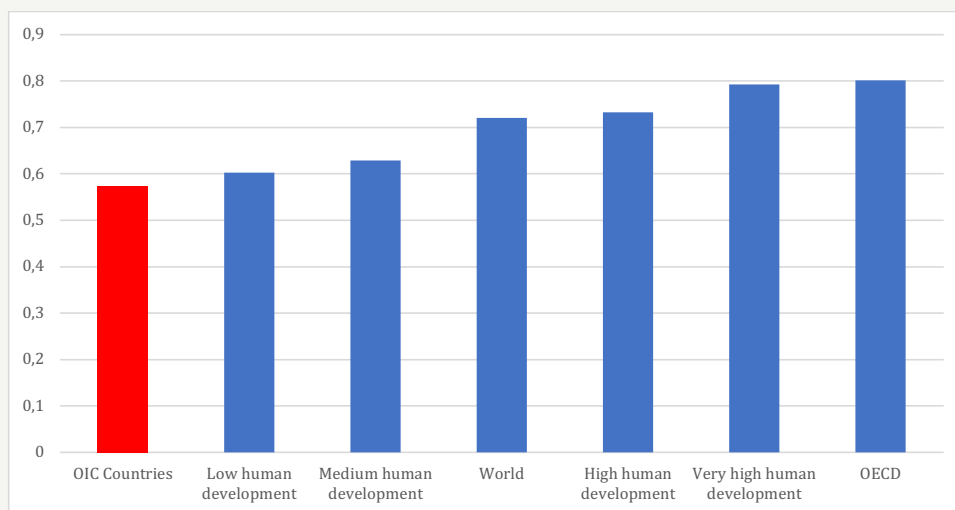


Source: World Bank, 2024

**Notes:** Figures are provided for the most recent available year for each country. The poverty headcount ratio at \$2.15 a day reflects the percentage of the population living on less than \$2.15 a day, adjusted for 2017 purchasing power parity. The national poverty headcount ratio represents the percentage of the population living below the national poverty line(s), with national estimates based on population-weighted subgroup data from household surveys."

Weak health systems further complicate efforts to address malnutrition, with many OIC Member Countries struggling with inadequate access to healthcare, insufficiently trained health workers, and a lack of effective nutrition programs. In fact, financial affordability and the low quality of health services are among the main challenges in most OIC countries, where around 40% of the total population faces access deficits in social health protection (WHO, 2012). Inequality between women and men also plays a critical role in exacerbating the effects of undernutrition, disproportionately impacting women and girls. For instance, women and girls are 1.5 times more likely to be severely hungry than men (UNICEF, 2023). According to the Global Gender Parity Index (GGPI), which assesses the status of women relative to men across key dimensions of human development, OIC countries, on average, lag behind global levels in terms of gender equality (Figure 3). Empowering women through education, economic opportunities, and better access to healthcare can significantly improve maternal and child nutrition in the Member Countries.

Figure 3: Global Gender Parity Index in OIC Countries and World



Source: UNDP, 2023.

The importance of addressing malnutrition has been recognized by both the Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs). The MDGs, established in 2000 by the United Nations with a target year of 2015, particularly highlighted this issue in MDG 1, which sought to eradicate extreme poverty and hunger. A key target of MDG 1 was to halve the proportion of people suffering from hunger between 1990 and 2015. While the MDGs achieved significant progress in reducing hunger and malnutrition, the results were uneven across regions and countries. By 2015, many areas still faced high levels of malnutrition. Additionally, the MDGs were critiqued for their narrow focus on undernutrition, neglecting broader aspects such as micronutrient deficiencies and overnutrition.

Building on the foundation of the MDGs, the Sustainable Development Goals (SDGs) were introduced in 2015 to continue and expand global efforts. SDG 2 specifically focuses on ending hunger, achieving food security and improved nutrition, and promoting sustainable agriculture. This goal aims to ensure access to safe, nutritious, and sufficient food year-round; end all forms of malnutrition by 2025, including stunting and wasting in children under five; address the nutritional needs of vulnerable groups such as adolescent girls, pregnant and lactating women, and older persons; double the agricultural productivity and incomes of small-scale food producers; and ensure sustainable food production systems and resilient agricultural practices.

Despite these ambitious global commitments, progress remains uneven. The challenges faced by OIC Member Countries underscore the urgent need for targeted interventions and international cooperation to effectively address these persistent issues.

## Human Capital Theory and the Undernutrition-Poverty Trap

Human capital theory provides a crucial framework for understanding the persistent cycle of birth weight and poverty, particularly across generations. This theory posits that investments in human capital—such as education, health, and nutrition—generate substantial returns in terms of productivity and economic growth (Schultz, 1961). Conversely, inadequate investment, especially during critical periods like early childhood, can have detrimental and long-lasting effects on individual and societal well-being.

Early childhood nutrition is crucial for cognitive development, physical growth, and immune function. Empirical research consistently demonstrates that undernourished children are more likely to experience cognitive impairments, stunted growth, and weakened immune systems, which adversely affect their educational attainment, labor productivity, and overall health. For instance, Glewwe et al. (2001) found that children who experienced malnutrition during their second year of life performed worse on IQ tests at age eight. Similarly, Alderman et al. (2006) showed that children who were malnourished between 12 and 24 months of age were, on average, 4.6 cm shorter by adolescence. Moreover, The Dutch Famine of 1944–45 has been linked to long-lasting adverse effects on adult health, including increased obesity rates and changes in epigenetic markers (Roseboom et al., 2006; Lumey et al., 2007; Lumey and Stein, 1997). Likewise, studies by Chen and Zhou (2007) show that individuals born during the height of the Great Famine in China from 1959 to 1961 tend to be shorter as adults, work fewer hours, and earn lower wages compared to those born outside this period.

Given these significant impacts, nutrition interventions are consistently recognized as some of the most cost-effective development actions. For instance, Horton and Steckel (2013) project that in Africa and Asia, reducing stunting prevalence could enhance economic productivity by 4–11%. Additionally, Hoddinott et al. (2013) estimate that every dollar invested in programs aimed at reducing stunting generates an impressive \$18 in economic returns. This highlights the critical importance of investing in nutrition as a strategy to improve both individual and societal well-being.

Moreover, the intergenerational aspect of this trap is well-documented. Undernourished mothers are more likely to give birth to low-birth weight babies, which increases the risk of continued malnutrition and reinforces a cycle that spans generations (Victora et al., 2008, Akbulut-Yuksel et al., 2024). Birth weight is not only a critical indicator of immediate infant health but also has far-reaching social and economic implications. Infants born with low birthweight (under 2500 grams) face a higher risk of mortality within their first year of life compared to those born with a healthier weight (Morris et al., 1998; Almond et al., 2005).



For those who survive, the risks extend into later life, with a higher likelihood of experiencing motor and neurological development issues, chronic illnesses, and other health complications (Strauss & Duncan, 1998; Adair, 1989; De et al., 2006). The long-term impact of low birth weight extends beyond health outcomes, affecting cognitive ability, educational achievement, and labor market performance, which in turn contribute to enduring socio-economic disparities (Currie & Rosemary, 1998; Case et al., 2005; Behrman & Mark, 2004; Black et al., 2007). These outcomes are compounded by the fact that poor health and low educational attainment reduce an individual's capacity to participate productively in the economy, thereby limiting their ability to invest in the next generation's nutrition and education. This cyclical nature underscores the deep-rooted connection between undernutrition and poverty.

Educational attainment plays a pivotal role in disrupting the cycle of undernutrition and poverty. Evidence suggests that education not only enhances individuals' ability to earn higher incomes but also improves their capacity to make informed health and nutrition decisions. For instance, individuals with higher levels of education are more likely to adopt better dietary practices and access health services, which can mitigate the effects of undernutrition. Studies such as those by Gertler et al. (2014) highlight that maternal education, in particular, has a significant impact on child health outcomes, including nutrition. Educated mothers are more likely to be aware of and implement effective child-rearing practices that promote better nutritional status and overall health for their children.

Furthermore, education provides individuals with skills that increase their employability and income potential, contributing to economic growth and poverty reduction. For example, a study by Psacharopoulos and Patrinos (2018) underscores the substantial economic returns of education, noting that each additional year of schooling can boost an individual's earnings by approximately 10%. These economic benefits, in turn, facilitate improved access to nutritious food and healthcare, thereby breaking the cycle of poverty and malnutrition. Thus, investing in education is not only a direct means of enhancing individual and societal well-being but also an indirect strategy for combating undernutrition through improved economic opportunities.

Given the profound implications of undernutrition on human capital, addressing this issue in OIC Member Countries is urgent. Investments in early childhood nutrition, coupled with efforts to improve healthcare access and expand educational opportunities, are essential strategies for breaking the undernutrition-poverty cycle. By fostering human capital development through targeted interventions, these countries can build a more resilient and prosperous future.

## Best Practices in OIC Member Countries and Collaborative Efforts

Despite the challenges, several OIC Member Countries have implemented effective interventions to combat malnutrition, providing valuable insights that can be adapted and scaled across the region.

A major international initiative that has significantly elevated the global focus on nutrition is the Scaling Up Nutrition (SUN) Movement, which was launched in 2010. It is a global initiative that brings together governments, civil society, the private sector, and donors to improve nutrition. Of the 57 member countries of the OIC, 29 have joined the SUN Movement. Through this movement, these nations have developed comprehensive national nutrition plans, enhanced multi-sectoral coordination, and increased investments in nutrition, leading to significant improvements in child nutrition indicators. For instance, Indonesia has made notable progress in reducing stunting and wasting among children under five years of age through its comprehensive nutrition programs.

Agricultural practices have also played a crucial role in addressing malnutrition. In countries like Bangladesh and Senegal, improved agricultural techniques have enhanced food security and nutrition. For example, Bangladesh's promotion of climate-smart agriculture has led to increased crop yields and better resilience against climate change impacts, which has helped improve food availability and dietary diversity. Similarly, Senegal's investment in sustainable farming practices, such as improved irrigation and crop diversification, has boosted local food production and contributed to better nutrition outcomes for vulnerable populations (FAO, 2024).

Conditional cash transfer programs have been successfully introduced in countries like Türkiye, Indonesia, Pakistan, Morocco and Jordan to enhance food security and nutrition among vulnerable populations. These programs provide cash transfers to poor households contingent upon meeting specific criteria, such as regular health check-ups and school attendance for children. Research shows that these conditional cash transfers (CCTs) can reduce stunting and improve dietary diversity (Lagarde, Haines, & Palmer, 2007). For example, CCT program in Türkiye, the number of nonattendance days at school was reduced by 50%, with a more significant impact observed in rural areas. The reduction in nonattendance was twice as high among girls compared to boys. Additionally, the percentage of mothers taking their children for regular health check-ups increased from 63.25% to 74.13% after they began receiving social assistance. This assistance also contributed to improvements in overall health conditions, heightened family awareness about health, and increased frequency of doctor visits (UNICEF, 2014).

School feeding programs have proven effective in improving both nutrition and educational outcomes. The United Nations World Food Programme (WFP) supports these initiatives in various countries, providing nutritious meals that enhance children's health and cognitive development. In 2022, over 80% of primary school children in Türkiye, Burkina Faso, and Kazakhstan received school feeding, compared to an average of around 30% among OIC Member Countries (WFP, 2022).

Food fortification represents another successful strategy to address micronutrient deficiencies. For instance, Sudan, in collaboration with the World Food Programme (WFP) and the World Health Organization (WHO), has effectively implemented mandatory fortification regulations for wheat flour and salt, developed a National Micronutrient Strategy, and achieved significant progress towards universal salt iodization through legislative support and industry partnerships. Similarly, Bangladesh has expanded its fortified rice program, increasing the number of beneficiaries from 30,000 to over 13 million since 2013 through social assistance programs (WFP, 2024).

The recognition that nutrition is a multisectoral issue has led to collaborative efforts across various sectors to tackle malnutrition effectively. In South Asia, the World Bank developed a regional strategy that combined increased awareness and funding with multisectoral coordination to address the high rates of child malnutrition. The South Asia Regional Management Team (RMT) prioritized nutrition and created a Results-Based RAS for Nutrition, a framework designed to ensure sustained focus on results. This strategy outlined the region's vision and approach, emphasizing the need for cross-sectoral collaboration and leveraging the World Bank's strengths to support comprehensive programs that integrate critical nutrition-sensitive actions. The RAS successfully achieved its objectives by enhancing awareness and commitment, increasing funding for maternal and child nutrition, addressing knowledge gaps through analytical work, and implementing a multisectoral project to improve child nutrition indicators (OIC, 2017).

On a collaborative front, OIC Member Countries have recognized the importance of collective action against malnutrition. The Joint Plan of Action, developed in partnership with the United Nations, aims to improve cooperation on malnutrition and food security challenges. This plan focuses on strengthening national capacities, enhancing data collection and analysis, and promoting best practices in nutrition (OIC, 2016).

The Islamic Solidarity Fund (ISF) also plays a critical role by supporting social and humanitarian projects across member countries. This includes funding for emergency food assistance, nutrition programs, and capacity-building efforts (ISF, 2019). Additionally, the OIC Food Security Reserve works to enhance food security and reduce the risk of shortages by providing emergency food assistance during crises (OIC, 2020).

The OIC Strategic Health Program of Action (SHPA) 2014-2023 emphasizes nutrition as a key area of focus. The program aims to strengthen health systems, improve maternal and child health, and address malnutrition through capacity-building, technical assistance, and policy support (OIC, 2014). These examples highlight the diverse and effective approaches OIC Member Countries are employing to combat malnutrition, demonstrating the potential for broader application and collaboration within the region.

## Policy Recommendations: Breaking the Cycle

To effectively address the persistent issue of malnutrition, OIC Member Countries must adopt comprehensive, multi-sectoral strategies that seamlessly integrate nutrition into broader development plans. Success in these endeavors requires more than just the formulation of policies; it necessitates a coordinated approach that aligns national nutrition policies with poverty reduction, agricultural development, and social protection efforts. This integrated strategy should be built on strong collaboration across sectors, enabling countries to address the root causes of malnutrition, such as poverty, food insecurity, and inadequate healthcare access.

Food security should be a central focus of any strategy to combat malnutrition. This can be achieved by investing in sustainable agricultural practices that not only increase food production but also enhance the nutritional quality of food. OIC Member Countries should promote climate-smart agriculture, which adapts farming practices to the challenges posed by climate change while ensuring environmental sustainability. Supporting small farmers, who constitute the backbone of agriculture in many OIC countries, is crucial. These farmers should have access to improved seeds, modern farming techniques, and financial services to increase productivity. Additionally, enhancing food distribution systems to minimize post-harvest losses is essential for ensuring that nutritious food reaches all segments of the population.

Social protection programs, such as conditional cash transfers and food assistance, play a vital role in addressing both immediate and long-term nutritional needs. These programs should be designed to do more than just provide temporary relief; they should aim to enhance dietary diversity, improve maternal and child nutrition, and increase access to essential health services. For example, interventions during the first 1,000 days of life—from conception to a child's second birthday—are critical. Research has shown that improving nutrition during this period can have profound long-term benefits, including better cognitive development, reduced incidence of chronic diseases, and a higher earning potential in adulthood. By breaking the cycle of poverty and undernutrition, these programs can contribute to sustainable development.

A robust health system is foundational to improving nutrition outcomes. OIC Member Countries should invest in maternal and child health services, ensuring that healthcare workers are well-trained in nutrition. This includes expanding access to essential interventions such as breastfeeding promotion, micronutrient supplementation, and treatment for acute malnutrition. Moreover, integrating nutrition services into primary healthcare can make these interventions more accessible and effective. For instance, routine health visits can be used as opportunities to provide nutrition education and monitor the growth and development of children, ensuring early detection and treatment of malnutrition.

Education and awareness are critical for empowering communities to make informed choices about nutrition. OIC Member Countries should invest in early childhood interventions, such as immunization programs, nutrition education, and complementary feeding practices, which can significantly impact child development. Schools can serve as important platforms for promoting healthy eating habits and educating children about the importance of nutrition. Community-based programs that involve local leaders and use culturally relevant messaging can also be effective in changing behaviors and improving nutrition at the grassroots level.



Finally, improving regional cooperation and knowledge-sharing is vital for tackling common nutritional challenges. The OIC and other regional organizations should play a leading role in coordinating nutrition policies, facilitating capacity-building initiatives, and promoting the exchange of best practices among member countries. By fostering a collaborative environment, these organizations can help Member Countries learn from each other's successes and challenges, thereby accelerating progress toward shared nutrition goals. Additionally, regional cooperation can lead to the development of joint initiatives, such as regional food reserves or research programs, which can provide a more comprehensive and sustainable response to malnutrition.

## **Conclusion**

The intricate relationship between undernutrition and poverty, as framed by human capital theory, represents a significant challenge for OIC Member Countries. The evidence discussed underscores the extensive impact of malnutrition on economic and social development, emphasizing the urgency of addressing this issue. The best practices identified offer valuable lessons, highlighting the effectiveness of integrated approaches and multi-sectoral strategies in combating malnutrition.

By implementing the recommended policy measures and leveraging regional cooperation, OIC Member Countries can make significant strides in breaking the undernutrition-poverty trap and fostering sustainable development. The commitment to these efforts will be instrumental in improving nutrition outcomes and achieving long-term economic stability for the OIC region.

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## How to Activate the Youth Potential in Islamic World

**Taha AYHAN<sup>1</sup>**

The youth population in the Organization of Islamic Cooperation (OIC) member countries is not only large but critical to shaping the region's future. As we commemorate the 40th Anniversary of the Standing Committee for Economic and Commercial Cooperation (COMCEC), it is important to reflect on the role that youth can play in transforming the OIC countries economically, socially, and politically. With over 350.8 million young people aged 15-24, the OIC has one of the largest youth populations in the world, making up nearly 29% of the global youth population (SESRI, 2022). This population holds immense potential to contribute to sustainable growth, provided that their capabilities are fully harnessed. Empowering the youth in OIC countries is not simply an option but a necessity for building resilient and inclusive societies.

However, youth in the OIC region face a unique set of challenges, including economic instability, high rates of unemployment, disparities in education, and socio-political exclusion. At the same time, global trends such as digital transformation, the rise of the green economy, urbanization, and the gig economy are reshaping the opportunities available to young people. To activate the potential of youth in OIC member countries, institutions such as Islamic Cooperation Youth Forum (ICYF) and the broader OIC framework could play a pivotal role in addressing these challenges while ensuring that youth are equipped with the tools they need to succeed in an increasingly interconnected and rapidly changing world.

### The Global Context: Trends Shaping Youth in OIC Countries

The future of the OIC region depends on how well it can align its youth development strategies with global trends. Today, the world is experiencing rapid changes in the way societies operate, driven by technological advancements, environmental challenges, and shifting socio-economic landscapes. For OIC countries, these trends present both opportunities and challenges that will determine how successfully youth can be empowered.

### Digital Transformation and Youth Empowerment

Digital transformation is one of the most profound changes influencing the lives of young people today. Advancements in technology have reshaped industries and economies around the world, offering new opportunities for employment, education, and entrepreneurship. For youth in OIC countries, this technological revolution offers pathways to innovation and global economic integration. Young people with access to digital tools and education are not only able to contribute to their local economies but can also compete on a global scale, creating start-ups, participating in digital markets, and accessing global resources.

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However, the digital divide remains a significant challenge in many OIC countries. While urban centres in more developed OIC countries have embraced digital technologies and provide young people with opportunities to engage in the digital economy, rural areas often lag behind. In regions where digital infrastructure is underdeveloped or unaffordable, large segments of the youth population are excluded from the benefits of digitalization. This divide is further intensified by disparities in digital literacy, with many young people lacking the necessary skills to navigate and use digital tools effectively.

To close this gap, OIC Member Countries must invest in digital infrastructure to ensure that even remote and rural areas have access to affordable internet and technology. Education systems must also integrate digital literacy into their curricula, providing young people with the skills needed to thrive in a technology-driven world. Moreover, targeted initiatives should be developed to bridge the digital divide, such as providing subsidized internet access for underserved communities and expanding access to digital devices (World Bank, 2020). Only by creating digitally inclusive environments can OIC countries fully harness the creative and entrepreneurial potential of their youth.

### **The Green Economy: A Pathway to Sustainable Development**

The shift towards a green economy presents another significant opportunity for the youth of OIC countries. Climate change poses serious risks to many OIC Member Countries, particularly those reliant on natural resources or agriculture. However, the transition to a more sustainable economic model also offers new avenues for employment and innovation, particularly for young people. The green economy, which includes sectors such as renewable energy, sustainable agriculture, and eco-tourism, is expected to grow significantly in the coming decades, creating millions of new jobs worldwide.

For OIC countries, investing in green industries is not only a way to mitigate the impacts of climate change but also a means of providing young people with employment opportunities in emerging sectors. Youth, with their adaptability and openness to new technologies, are well-positioned to lead the way in developing and implementing sustainable solutions. From solar energy projects in North Africa to sustainable agriculture initiatives in South East Asia, young entrepreneurs are already demonstrating their ability to innovate in the green economy.

To take full advantage of these opportunities, OIC Member Countries must invest in green skills training and education. Programmes that focus on renewable energy technologies, environmental management, and sustainable business practices should be integrated into national education systems. Additionally, governments should provide financial incentives and support for youth-led initiatives in the green economy, helping young entrepreneurs to start and scale sustainable businesses (UNDP, 2021). By aligning their economic strategies with global trends towards sustainability, OIC countries can empower their youth to become leaders in the global green economy.

## Urbanization: Navigating the Challenges and Opportunities of City Life

Urbanization is transforming the lives of young people across the OIC region. Cities have long been seen as hubs of opportunity, offering better access to education, employment, and healthcare. For young people, urban centres offer the chance to escape the limitations of rural life and pursue their ambitions in a more dynamic environment. However, rapid urbanization also poses a number of challenges, particularly for young people.

In many OIC countries, cities are growing at an unprecedented rate, often outpacing the development of the infrastructure and services needed to support their expanding populations. As more young people move to cities in search of opportunities, they often find themselves facing overcrowded housing, high living costs, and limited access to quality healthcare and education. Unemployment rates in urban areas are also high, particularly for young people, many of whom are forced to work in the informal economy, where jobs are often precarious and lack social protection.

To address these challenges, OIC countries must prioritize the development of youth-friendly urban policies. These policies should focus on creating affordable housing, improving access to education and health care, and expanding employment opportunities for young people. Furthermore, cities should be designed with young people in mind, offering safe and inclusive spaces where young people can engage in cultural, social, and economic activities (UN-Habitat, 2019).

Despite these challenges, cities also offer unique opportunities for youth to lead innovation and social change. Many young people in urban areas are already at the forefront of developing solutions to urban problems, from addressing housing shortages to creating sustainable transportation systems. By supporting youth-led urban initiatives and providing young people with platforms to share their ideas, OIC countries can ensure that cities become spaces of opportunity for all.

## The Gig Economy: Balancing Flexibility and Security

The rise of the gig economy has transformed the employment landscape for young people in many OIC countries. Characterized by short-term, flexible jobs, the gig economy offers young people an alternative to traditional employment, particularly in sectors such as ride-sharing, delivery services, and freelance digital work. For many young people, gig work provides an immediate source of income and allows for greater flexibility in managing their time and responsibilities.

However, the gig economy also poses significant challenges. Gig workers often lack access to social protections, such as health insurance, retirement benefits, and job security. Moreover, gig work is often poorly paid and does not offer opportunities for long-term career development. This leaves many young people trapped in a cycle of precarious work, with little opportunity to advance in their careers or achieve economic stability (ILO, 2022).

To address these issues, OIC countries need to balance the flexibility offered by the gig economy with the need for secure, stable employment. Governments should work to regulate the gig economy to ensure that gig workers have access to basic labor protections and are not exploited by employers. Additionally, efforts should be made to create more formal employment opportunities for young people, particularly in sectors that offer long-term career growth and stability.

## **Challenges Facing Youth in OIC Countries**

Youth in OIC countries face a multitude of challenges that hinder their ability to contribute fully to society. These challenges are deeply connected with economic, social, educational, and political factors, making it essential for OIC Member Countries and international organizations to adopt comprehensive strategies to address them.

### **- Unemployment and Underemployment**

Youth unemployment is one of the most significant challenges facing OIC countries. Despite improvements in education and economic development in many OIC countries, youth unemployment rates remain persistently high, often exceeding the global average. Even among those who are employed, many young people face underemployment, working in jobs that do not fully utilize their skills or provide adequate wages (OECD, 2020).

To address youth unemployment, OIC countries need to invest in education and skills training that align with the needs of the modern labour market. Vocational training programs, apprenticeships, and internships can help young people develop the skills needed for in-demand jobs, while entrepreneurship programs can provide young people with the tools to start their own businesses. Additionally, governments should work to create an enabling environment for youth employment, including reducing bureaucratic barriers to starting a business and offering tax incentives to companies that hire young workers.

### **- Educational Disparities and the Skills Gap**

While access to education has improved across much of the OIC region, significant disparities remain in terms of both quality and relevance. In many rural and conflict-affected areas, young people lack access to the educational resources needed to succeed in the modern economy. Outdated curricula, under-resourced schools, and a lack of qualified teachers contribute to a widening skills gap, leaving many young people unprepared for the demands of the digital and green economy (UNESCO, 2021).

Closing this skills gap requires comprehensive education reform that prioritizes digital literacy, technical skills, and entrepreneurship. OIC countries must work to modernize their education systems to ensure that all young people have access to the tools and knowledge they need to succeed in the 21<sup>st</sup> century workforce. Furthermore, vocational training and skills development programs should be expanded to provide young people with practical skills that are directly linked to the needs of local job markets.

## - **Socio-Political Exclusion and Civic Engagement**

In many OIC countries, young people are marginalized from decision-making processes, which limits their ability to influence policies that affect their lives. This socio-political exclusion is often compounded by cultural norms that devalue young people's perspectives and limit opportunities for meaningful civic engagement. In countries experiencing political instability or conflict, these barriers become even more pronounced, leaving young people feeling disillusioned and disconnected from their governments (World Economic Forum, 2021).

Addressing socio-political exclusion requires the creation of platforms for youth participation in governance and policy-making. Governments must involve young people in the development of policies that impact their futures, ensuring that young people's voices are heard and that their contributions are valued. Youth councils, civil society organizations, and political reforms that promote youth leadership are essential tools for fostering greater youth participation in governance and building more inclusive and democratic societies.

## - **Inequality Between Men and Women and Youth Empowerment**

Disparities between women and men remain a significant challenge in many OIC countries, particularly in the areas of education, employment, and leadership. Young women, in particular, face barriers to accessing the same opportunities as their male counterparts, due to socio-cultural norms and legal restrictions that limit their participation in public life. These barriers prevent young women from fully contributing to their communities and economies, hindering the overall development of OIC countries (World Bank, 2021).

Activating the potential of youth in OIC countries requires targeted efforts to address inequality between women and men, and promote the full inclusion of young women in all aspects of society. This includes removing legal barriers to women's participation, promoting policies, and supporting initiatives that empower young women to take on leadership roles. Equality between men and women is not only a matter of fairness but also a prerequisite for unlocking the full potential of youth in OIC countries and achieving sustainable development.

## **ICYF's Comprehensive Approach to Youth Empowerment**

Over the last 5 years, ICYF has made considerable efforts to empower the youth through educational programs, capacity building, employment and social inclusion. With the vision of becoming a place where Muslim youth can find solutions to their problems, raise their voices, and reach out to a global Muslim network, as the Islamic Cooperation Youth Forum (ICYF) placed youth at the centre by focusing on various key opportunities. In addition to the ICYF's main role in raising awareness of the current issues facing Muslim youth in the global sphere, the ICYF also focuses on effective ways of youth empowerment. Specifically, addressing the economic challenges of the Muslim Youth has been one of ICYF's main agendas to address socio-economic issues affecting young people in the OIC region. This involved not only providing resources and educational support but also creating a culture of innovation and entrepreneurship that encourages young people to explore new ideas and solutions in line with the new developments of our era.



One of the most notable initiatives of ICYF is the **OIC Youth Capital Program**, which annually designates a city within the OIC as the Youth Capital. This program provides a platform for young people to engage in intercultural dialogue, develop leadership skills, and showcase their talents. By focusing on the cultural, social, and economic dimensions of youth empowerment, the OIC Youth Capital Program fosters a sense of solidarity among Muslim youth and promotes their active participation in the development of their communities (ICYF, 2024).

In parallel with the broader mission of the COMCEC to study all possible means of strengthening economic and commercial cooperation and increase the welfare among the Member Countries, the ICYF activities led by the **Young Business Hub** have been designed to develop programs that empower young entrepreneurs, facilitating to access global knowledge and resources and creating a network of business for young Muslims. Thus, innovative ideas of the most dynamic segment of the society might be transformed into economic and social benefits, specifically in the OIC Member Countries. In recent years, the hub has become a platform in which various training programs and summits took place to enhance the economic and commercial activities of young Muslims and create a culture of a collaborative environment for entrepreneurs.

Additionally, the ICYF's **International Incubation Center** provides essential support for start-ups, including financial and legal literacy, technical assistance, mentoring, and networking opportunities. This center plays a crucial role in guiding young entrepreneurs from the idea stage through to full business incorporation, helping them develop business models and marketing strategies, and providing seed funding and workspace. These efforts are instrumental in building a network of young leaders to discuss international economic and commercial issues and develop a common understanding in line with the vision and principles of the relevant OIC strategies (ICYF, 2024).

Thanks to its dynamic structure, ICYF develops well-tailored programs to address local needs and making them a part of international context. Similarly, the vocational training and skills development programs designed by ICYF and its member institutions aim to equip young people with the necessary skills needed for the local job market. Moreover, ICYF's efforts in improve non-formal education, integrate digital learning tools, and support creative industries in the OIC regions also contribute to building a skilled workforce and addressing educational inequalities in underserved communities. Through these interlinked activities, the ICYF not only desires to promote individual capabilities but also be an actor that contributes to the broader socio-economic development of the OIC region.

## **Best Practices in OIC Member Countries: Lessons from National Youth Policies**

Several OIC member countries have taken the lead in youth development through targeted national policies, focusing on education, employment, and social inclusion. For instance, Malaysia has been exemplary in integrating digital literacy into its education system. The country's **Malaysia Digital Economy Blueprint** ensures that youth have access to digital skills training and are prepared to participate in the global digital economy. This blueprint emphasizes the importance of youth entrepreneurship by providing mentorship, financial support, and networking opportunities to young tech innovators (Ministry of Communications and Multimedia Malaysia, 2021).

Türkiye has also been at the forefront of youth empowerment through its **Youth Strategy Action Plan (2018-2023)**, which includes initiatives on education, sports, arts, and civic participation. The Turkish government collaborates closely with youth councils and civil society to ensure that young people play a central role in shaping policies that affect their future. Türkiye's Youth Centres serve as hubs where young people can engage in cultural, social, and entrepreneurial activities. These centres have been praised for fostering a sense of community and helping young people gain access to the skills they need to succeed (Ministry of Youth and Sports Türkiye, 2018).

In the United Arab Emirates (UAE), the **Youth Hub initiative** has gained international attention for creating a platform where young people can come together to innovate and collaborate. The UAE government has developed youth-centred policies that prioritize leadership development, including programs such as the UAE Youth Leadership Academy, which focuses on fostering leadership skills, entrepreneurship, and civic engagement (UAE Government Portal, 2020).

Several other OIC Member Countries have also implemented successful youth empowerment initiatives. **Saudi Arabia**, for example, has established comprehensive youth development policies under its **Vision 2030**. The kingdom focuses on diversifying its economy and reducing reliance on oil, with youth playing a central role in driving economic innovation. Programs such as the **MiSK Foundation's Leadership Development Programs** have been particularly effective, providing training, mentorship, and international exposure to young Saudis, preparing them for leadership roles in both the private and public sectors (MiSK Foundation, 2021).

Similarly, **Indonesia** has made significant progress in youth empowerment by integrating entrepreneurship and vocational training into its national education system. Through its **Creative Economy Agency (Bekraf)**, the government has supported young entrepreneurs in sectors like fashion, film, and technology. This approach not only harnesses youth creativity, but also positions Indonesia as a leader in the creative economy within the OIC (Bekraf, 2020).

**Morocco** has also implemented noteworthy youth policies, particularly focusing on vocational training and entrepreneurship. The country's **National Initiative for Human Development (INDH)** includes youth-focused projects that aim to reduce unemployment by supporting small and medium-sized enterprises (SMEs) and vocational training centres (World Bank, 2019). Morocco's focus on inclusive education and vocational training has created pathways for youth to enter the labour market, particularly in high-growth sectors such as tourism and agriculture.

## Collaborative OIC Initiatives: A Collective Effort to Empower Youth

Activating the potential of youth in the OIC region depends on the strong collaboration between the institutions, governments, private sector and civil society. Well-developed policies and effective practices that prioritize youth employment, innovation, and entrepreneurship have been fundamental in ensuring that the energy and creativity of young people are directed to the community development. In this regard, institutions must be encouraged to invest in youth-led initiatives and offer more places to the youth presence not to dismiss youth perspective.

Civil society organizations, including youth-led groups, must be supported to play a more active role in advocating for youth rights, providing platforms for youth participation, and facilitating community-based programs that address local challenges.

On a broader level, the OIC and its associated institutions have launched numerous collaborative efforts to empower youth in Member Countries. The **OIC Youth Strategy**, adopted in 2018, serves as the primary framework guiding youth empowerment across the organization's Member Countries. This strategy aligns with the **OIC-2025 Programme of Action**, which emphasizes the role of youth in fostering sustainable development, addressing unemployment, and promoting civic participation. By creating platforms for policy exchange, the OIC Youth Strategy encourages Member Countries to share best practices and collaborate to implement effective youth policies.

The **SESRIC** (Statistical, Economic, and Social Research and Training Centre for Islamic Countries) also plays a pivotal role in facilitating the exchange of best practices among OIC member countries. Through the **OIC-VET (Vocational Education and Training)** program, SESRIC has helped member countries enhance their vocational training systems to better equip young people with the skills needed for employment in emerging sectors. The OIC-VET program, which operates under a strategic roadmap from 2020 to 2025, focuses on improving technical skills in sectors such as technology, agriculture, and renewable energy.

Additionally, **Reverse Linkage Mechanism** is a technical cooperation mechanism introduced by the Islamic Development Bank Group (IsDB) with the objective of facilitating the transfer of knowledge and expertise, as well as the sharing of best practices, amongst partnering OIC Member Countries. SESRIC has engaged some Reverse Linkage projects by allowing nations with more developed vocational training systems to assist others in improving their own programs. For instance, Malaysia and Türkiye have provided technical assistance and expertise to less-developed OIC countries in the areas of digital literacy and vocational training.

The **OIC Plan of Action for Youth** also promotes collective efforts to address issues such as radicalization and social exclusion. By fostering greater cooperation between youth organizations in OIC countries, this plan encourages Member Countries to create platforms for youth engagement in policy discussions and peace-building activities. For example, the **Young Muslim Women Network (YMWN)**, which operates within the OIC framework, focuses on empowering young women to take leadership roles in community development and governance (SESRIC, 2020).

Beyond individual national efforts, collaborative programs such as the Forum of **Youth Councils of OIC Member Countries** have proven to be vital platforms for knowledge-sharing and cooperation. This forum, which brings together youth council representatives from various OIC countries, allows for the exchange of ideas and best practices in youth governance. The forum aims to foster civic engagement, through discussions on policies related to education, employment, and innovation. Notably, the forum has facilitated the development of youth policies that prioritize digital transformation and entrepreneurship, providing a framework for Member Countries to implement nationally (OIC, 2020).

Furthermore, the **ISESCO Youth Volunteer Program**, initiated by the Islamic World Educational, Scientific and Cultural Organization (ISESCO), has been instrumental in mobilizing young people across OIC member countries for community service. This program fosters a spirit of volunteerism among young people, encouraging them to engage in initiatives ranging from environmental conservation to educational outreach. By participating in these programs, youth not only contribute to their communities but also develop essential leadership and organizational skills (ISESCO, 2020).

## Policy Recommendations for Activating Youth Potential

To fully activate the potential of youth in OIC countries, governments, international organizations, and civil society must work together to create an enabling environment that supports youth development. The following are key policy recommendations to achieve this goal:

1. **Investing in Education and Skills Development:** Governments must prioritize investment in education systems that align with the needs of the 21<sup>st</sup> century economy. This includes modernizing curricula, expanding access to vocational training, and promoting digital literacy.
2. **Supporting Youth Entrepreneurship:** Governments and international organizations should provide financial and technical support for youth-led businesses, offering mentorship, access to markets, and investment opportunities. This should also include the creation of regulatory environments that encourage innovation and entrepreneurship.
3. **Promoting Civic Engagement and Political Participation:** Youth participation in governance and policymaking is essential for building inclusive societies. Governments should create platforms for youth involvement, such as youth councils, and ensure that youth voices are represented in decision-making processes.
4. **Addressing Inequality Between Women and Men:** Efforts to empower youth must include a focus on equality between men and women. Removing legal barriers to women's participation and promoting policies that are sensitive to equality between men and women are crucial for ensuring that all young people have equal opportunities to succeed.
5. **Expanding Digital Access:** Digital inclusion is essential for the development of youth in the modern economy. OIC countries should invest in digital infrastructure, ensure affordable access to technology, and integrate digital skills training into education systems to close the digital divide.



## Conclusion

Activating the potential of youth in the OIC countries is not just a developmental goal but a moral imperative. The energy, creativity, and resilience of young people are indispensable for driving economic growth and social progress in the region. As the world continues to evolve, OIC countries must align their youth development strategies with global trends such as digital transformation, the green economy, urbanization, and the rise of the gig economy. By addressing the challenges and opportunities faced by youth through targeted policies and initiatives, OIC countries can unlock the full potential of their young populations and build more inclusive, prosperous, and resilient societies.

Organizations like the Islamic Cooperation Youth Forum (ICYF) are playing a key role in this process by offering platforms and resources that empower youth to lead and contribute to the development of their societies. As we celebrate the 40th anniversary of COMCEC, it is clear that the future of the OIC region lies in the hands of its youth. Through continued collaboration between governments, international organizations, and civil society, we can ensure that the voices of young people are heard, their talents nurtured, and their potential fully realized.

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## Promoting the Youth and Women Entrepreneurs in Islamic Countries

*Mrs. Juldeh CEESAY<sup>1</sup>*

### Introduction

Youth and women employment and entrepreneurship are critical to the socio-economic development of any nation, particularly in the OIC Member Countries. By empowering these groups through entrepreneurship, governments can tap into a largely underutilized resource. This can result in innovation, new business creation, and overall economic dynamism. Youth-led startups and women-owned businesses can create jobs, generate wealth, and contribute to a diversified economy, reducing dependence on traditional industries in many Middle Eastern countries.

Entrepreneurship provides young people and women with the tools to break free from traditional roles and expectations. It offers them the opportunity to become economically independent, which can have a positive ripple effect on their families and communities. In countries like Saudi Arabia, where Vision 2030 promotes the inclusion of women in the workforce, the growth of female entrepreneurship is seen as a key component of economic reform and social progress.

While youth and women unemployment remain a critical challenge, entrepreneurship presents a viable solution to create jobs, foster innovation, and drive economic growth. This article explores the state of youth and women employment and entrepreneurship in OIC Member Countries, highlighting the key challenges and opportunities. It also explores the current landscape of youth and women employment in the entrepreneurial and the spirit among young people and women, strategies that can be employed to enhance employment opportunities and support entrepreneurship.

Youth are often at the forefront of technological innovation, while women bring unique perspectives to business challenges. Their involvement in entrepreneurship can foster creative solutions to social, economic, and environmental challenges. For instance, youth-led social enterprises and women-driven eco-businesses are addressing issues like unemployment, climate change, and gender inequality in various OIC Member Countries.

Governments of the OIC Member Countries focused on looking at framework and strategies to generating new jobs and increasing employment rates. However, there is an urgent need for the policy makers to look specifically at the youth and women unemployment and related issues. In some of the countries youth and women entrepreneurship is being recognized as a promising alternative and is being actively promoted by various agencies. If actively promoted, youth entrepreneurship can help sustain growing economies; integrate youth into the workforce besides leading to overall development of the society.

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Working towards youth and women entrepreneurship programs can help solve as well as avoid many problems that are currently staring at the OIC Member Countries and pave way for a better future and progressive societies over the world.

Tailored policies emerge as vital tools to combat youth and women unemployment, with recommendations encompassing proactive macroeconomic strategies, curriculum reforms, second-chance education, reducing bureaucratic barriers, streamlining business registration processes, and offering tax incentives for women and youth-led enterprises and targeted programs for specific demographics.

Partnerships with development partners and with the mega resources from governments are also pivotal to address youth employability and entrepreneurship development in many OIC Member Countries. Public and Private Sector Collaboration encourage private companies to provide corporate social responsibility (CSR) initiatives that support youth and women entrepreneurs through mentorship, funding, or internships. Establishing incubators, accelerators, and innovation hubs can provide young entrepreneurs with the resources, mentorship, and networking opportunities, they need to succeed.

Youth and women entrepreneurship is pivotal to the future of OIC Member Countries. By creating an enabling environment through reforms, access to finance, education, and supportive policies, these countries can harness the creativity, innovation, and economic potential of their populations. Through the joint efforts of governments, financial institutions, and the private sector, entrepreneurship can become a driver of sustainable development and social change in OIC Member Countries.

## Current Landscape of Youth and Women Employment in OIC Member Countries

The current landscape of youth and women's employment in OIC Member Countries presents significant challenges but also promising opportunities.

- 1. Demographic Pressure/Youth Population Bulge:** A significant portion of the population in many OIC Member Countries is young, which continues to drive high population growth rates. This “youth bulge” can be both an opportunity and a challenge for economic development. Many OIC Member Countries, particularly in regions like the Middle East, and Sub-Saharan Africa, are experiencing a youth bulge. The high proportion of young people creates a demographic dividend—an economic growth opportunity due to the increased labor force.
- 2. Youth Employment:** In many OIC Member Countries, youth unemployment remains high, with about one-third of young people either unemployed or vulnerably employed. The situation is particularly severe for young women, as female youth unemployment rates are nearly double that of males. In some regions, three-quarters of young women are not in employment, education, or training. Economic hardships, coupled with societal barriers, contribute to this scenario.

**Women's Employment:** Although progress has been made in advancing women's economic inclusion in some OIC Member Countries, considerable gaps persist. For example, in Arab countries, despite improvements in education and some policy changes, women's participation in the workforce is still lagging behind. Initiatives like the Islamic Development Bank (IsDB) and the Islamic Solidarity Fund for Development (ISFD) are tackling this issue. A new program aims to increase women's employment in sectors such as Green Economy, Science, Technology, Engineering, and Mathematics (STEM) and care economies by 5% by 2030 through targeted financial resources and capacity-building efforts (ISFD Poverty Relief, 2018)

**3. Opportunities:** The focus on the green economy, driven by the region's climate challenges, presents new employment prospects, especially for women. Moreover, technical fields like STEM are also emerging as key areas of potential growth, as a significant portion of future jobs is expected to be in these sectors. While the region faces hurdles such as restrictive societal norms and economic instability, the growing focus on sustainable economic models offers potential pathways for improving youth and women's employment outcomes across OIC Member Countries.

**4. Fertility Rates and Religion:** Rapid population growth in OIC Member Countries has been a notable demographic trend for decades. Several factors contribute to this growth, including cultural, religious, economic, and political influences.

Rapid population growth in OIC Member Countries presents both challenges and opportunities for youth and women entrepreneurship. These regions are characterized by a significant youth demographic, which can drive economic development if harnessed effectively (UN Women Arab States).

**5. Religious Influence:** Islam encourages large families, and in many Islamic societies, children are seen as a blessing. High fertility rates are linked to religious teachings that emphasize family values and procreation.<sup>2</sup>

**6. Economic Disparities:** Many Islamic countries, particularly in Africa and South Asia, experience slower economic development and have lower access to education and family planning resources, which contributes to higher birth rates.

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<sup>2</sup> Eberstadt, Nicholas. *The Future of Global Muslim Population Growth*, Pew Research Center (2011). This report highlights demographic patterns in Muslim-majority countries.

## Entrepreneurship as a Viable Solution for Youth and Women Entrepreneurship

Enhancing youth employment and entrepreneurship in OIC Member Countries requires a multifaceted approach that takes into account local economic, social, and cultural factors. Below are strategies that can be applied, supported by references from various studies and reports:

### 1. Education and Skill Development

- **Investing in education and vocational training:** Providing education tailored to market needs, with a focus on technology, soft skills, and entrepreneurship, can equip young people for the workforce.
- While entrepreneurial spirit is high, there is often a lack of formal training and mentorship in business skills. Investing in entrepreneurship education and mentorship programs can help bridge this gap.<sup>3</sup>
- **Promoting technical and vocational education and training (TVET):** OIC Member Countries can invest in TVET programs to provide youth with practical skills, making them more employable or empowering them to start their own businesses.<sup>4</sup>

### 2. Access to Finance

- **Facilitating Islamic finance options:** Islamic finance models, like *murabaha* (profit-sharing) and *mudaraba* (venture capital-style investments), offer an ethical alternative to conventional finance, particularly for aspiring young entrepreneurs. Venture Capital and Angel Investment Networks focused on youth and women-led businesses, and special funds aligned with Islamic finance principles could be established.<sup>5</sup>
- **Establishing youth-focused microcredit institutions:** Developing institutions that offer small loans tailored to young people's needs can foster entrepreneurship. Islamic finance offers unique opportunities for youth and women entrepreneurs with its principles of risk-sharing and ethical investment. Microfinance institutions, particularly in countries like Bangladesh, Indonesia, and Pakistan, have played a crucial role in providing young entrepreneurs with the capital they need to start and grow their businesses. Expanding access to such financial services can further boost youth entrepreneurship. Shariah-compliant financial products such as micro-loans can be offered to support new initiatives within the scope of microfinance and Islamic Banking to support start-ups. Microfinance institutions can provide interest-free loans (*qard al-hasan*) to help entrepreneurs access capital.<sup>6</sup>

3 The World Bank highlights the importance of aligning education with labor market demands in Muslim-majority countries to address the skills mismatch.

4 UNESCO has emphasized the role of vocational training in improving youth employment, especially in countries with large young populations.

5 The Islamic Development Bank (IDB) and the International Monetary Fund (IMF) have explored Islamic microfinance as a solution to youth unemployment in OIC (Organization of Islamic Cooperation) countries.

6 Research by the International Labour Organization (ILO) highlights that microcredit schemes, especially in North African OIC Member Countries, have significantly improved youth entrepreneurship opportunities.

## 3. Entrepreneurial Ecosystem Support

- **Creating business incubators and innovation hubs:** Providing physical spaces and resources for young entrepreneurs to develop their business ideas can help mitigate some of the risks associated with starting a business.<sup>7</sup>
- **Mentorship and coaching programs:** Establishing mentorship programs where experienced entrepreneurs can guide younger generations fosters a culture of entrepreneurship. When most of the OIC Member Countries focused on creating and nurturing an environment conducive to youth entrepreneurship, it becomes imperative to study the current situation, identify the pitfalls and shortcomings and design new strategies to overcome and remove the obstacles and make the path easier and clear for the youth to pursue. Governments focused on diversifying their economies often implement policies that encourage the inclusion of marginalized groups, such as women and youth, in business activities. Reforms can include lowering regulatory barriers, simplifying business registration processes, and offering tax incentives to startups led by women and young people. Such policies make it easier for these groups to start and sustain businesses.
- Identifying a good and viable business opportunity and proposition too can happen with a bit of market research and mentoring by the experienced entrepreneurs. When it comes to start the action towards setting up the business enterprise, the next set of barriers or obstacles will need to be surmounted. These barriers are mainly to do with financing options and documentation requirements.<sup>8</sup>

## 4. Policy and Institutional Reform

- **Implementing youth-focused employment policies:** Governments in OIC Member Countries can create policies that incentivize companies to hire young people, such as tax breaks or subsidies for youth employment.<sup>9</sup>
- **Reducing bureaucratic barriers to entrepreneurship:** Simplifying the processes for registering and running a business is critical, especially for young entrepreneurs who may lack the resources to navigate complex systems.<sup>10</sup>

7 A 2020 report by the Global Entrepreneurship Monitor (GEM) showed that entrepreneurship ecosystems in the Middle East and North Africa (MENA) region improved when governments supported innovation hubs.

8 A study by the ILO and the United Nations Development Programme (UNDP) emphasizes the importance of mentorship in promoting entrepreneurship among youth in OIC Member Countries.

9 The UN Economic and Social Commission for Western Asia (ESCWA) notes that targeted employment policies in Arab and OIC Member Countries have had a positive impact on reducing youth unemployment.

10 A World Economic Forum report on MENA highlighted that cutting red tape and simplifying regulations has led to a more vibrant entrepreneurial culture.



## 5. Promoting Digital and Green Economies

- **Leveraging the digital economy:** Encouraging young people to enter the digital economy, such as by providing training in e-commerce, digital marketing, and app development, is crucial in today's technology-driven world. Digital platforms and social media have empowered youth and women entrepreneurs by providing access to global markets, resources, and networks. With increasing access to technology, youth and women entrepreneurs can participate in sectors like digital economy, networking, agribusiness, and small-scale manufacturing. Improving access to the Internet and digital tools, especially in rural areas, is important to enable youth and women to participate in e-commerce, online education and virtual entrepreneurship. E-commerce Support provides training on digital marketing, online business platforms, and creating an online presence to allow women and youth entrepreneurs to reach wider markets.<sup>11</sup>
- **Investing in green entrepreneurship:** Promoting businesses that focus on sustainability and the environment can open up new opportunities for youth, especially as the demand for green solutions grows globally.<sup>12</sup>

## 6. Encouraging Social Enterprises

- **Fostering social entrepreneurship:** Social enterprises, which focus on solving social problems while maintaining a profit-making model, can address issues like poverty and education, which are closely tied to unemployment. By adopting these strategies, OIC Member Countries can tackle the significant challenges of youth unemployment and foster a new generation of entrepreneurs who can contribute to economic growth and social stability.<sup>13</sup>

## 7. Exchange Programs:

- International exchange opportunities could be created for young and women entrepreneurs from Organisation of Islamic Cooperation (OIC) Member Countries to network, learn from global best practices and build partnerships with businesses abroad.
- Exchange programs for promoting youth and women entrepreneurship in OIC Member Countries are designed to foster innovation, build capacity, and enhance collaboration across borders. These initiatives are crucial for addressing economic challenges, encouraging sustainable development, and empowering underrepresented groups like women and youth.

11 The World Bank's report on the digital economy in OIC countries stresses the importance of digital literacy as a way to combat youth unemployment.

12 According to a UN Environment Programme (UNEP) report, green entrepreneurship is on the rise in several OIC Member Countries, driven by a growing interest in sustainable development.

13 Research published by the British Council shows that social enterprises are emerging as key players in reducing youth unemployment in several OIC Member Countries.

## Challenges to Youth and Women Entrepreneurship in OIC Member Countries

Youth and women entrepreneurship in OIC Member Countries face a variety of challenges, shaped by social, economic, cultural, and political factors. Below are some of the key challenges, along with references for further reading:

### 1. Cultural and Social Norms

- **Gender Norms:** In many OIC Member Countries, societal expectations often place restrictions on women's roles, primarily expecting them to prioritize family and household responsibilities over entrepreneurship. Cultural attitudes about gender roles sometimes limit the opportunities women have for education, mobility, and interaction in male-dominated business sectors.
- **Youth Perception:** Young entrepreneurs may not be seen as credible or capable, leading to skepticism from potential investors, partners, and customers. Traditional family expectations often emphasize employment stability over entrepreneurial risk-taking.<sup>14</sup>

### 2. Legal and Regulatory Barriers

- **Complex Licensing and Regulations:** Many OIC Member Countries have bureaucratic hurdles for starting a business, such as lengthy processes for obtaining licenses, high fees, and complex tax systems. This can be particularly challenging for women, who may have less access to legal support or networks.
- **Gender-specific Laws:** In some countries, laws limit the ability of women to independently sign contracts, register businesses, or travel without male approval. These regulations curtail women's autonomy in managing and growing a business.<sup>15</sup>

<sup>14</sup> Kabeer, Naila. "Women's economic empowerment and inclusive growth: labour markets and enterprise development." *International Development Research Centre* (2012). Moghadam, Valentine M. "Gender and globalization: Female labor and women's mobilization." *Journal of World-Systems Research* (2015).

<sup>15</sup> World Bank. "Women, Business and the Law 2020." *World Bank Group* (2020). Syed, Javed, et al. "Diversity management and organizational sustainability: A critical review." *Sustainability* (2018).

### 3. Access to Finance

- **Limited Access to Credit:** Women and youth face greater challenges in securing loans or capital to start and grow their businesses. Financial institutions often require collateral, and young entrepreneurs or women may lack property ownership or assets that can be used as guarantees.
- **Financial Inclusion:** Many women in OIC Member Countries do not have bank accounts or financial independence, further limiting their ability to secure funding. Religious beliefs around interest-based financing (Riba) may also restrict their use of traditional banking systems, although Islamic banking alternatives such as profit-sharing models (Murabaha, Musharaka) are growing.<sup>16</sup>

### 4. Education and Skill Gaps

- **Lack of Entrepreneurial Education:** Many young people and women in Islamic countries do not receive the education or skills training necessary to thrive as entrepreneurs. There may be a lack of programs that focus on business management, finance, and leadership skills tailored to the needs of youth and women.
- **Digital Literacy:** While access to technology is improving, many aspiring young entrepreneurs and women, especially in rural areas, lack sufficient digital literacy and access to technology that could enhance business opportunities.<sup>17</sup>

### 5. Networking and Mentorship

- **Limited Professional Networks:** Women in OIC Member Countries often have fewer opportunities to network which restricts access to mentors, role models, and partnerships. Young entrepreneurs may lack established connections with influential business figures or funding institutions, limiting their ability to scale.
- **Gender-Segregated Spaces:** In conservative Islamic societies, gender segregation in public and workspaces can further restrict women's ability to engage in entrepreneurial ecosystems dominated by male professionals.<sup>18</sup>

16 Demirgüç-Kunt, Asli, et al. "The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution." *World Bank Group* (2018). Goyal, Neha, and R. M. Kapoor. "Women Entrepreneurship in Developing Countries: Issues, Challenges and Empowerment through Self Help Groups." *Journal of Economic and Social Development* (2020).

17 Elert, Niklas, Magnus Henrekson, and Mark Sanders. "The entrepreneurial society: A reform strategy for the European Union." *Springer* (2019). Nasr, Sahar, and Douglas Pearce. "SMEs for job creation in the Arab world: SME access to financial services." *World Bank* (2012).

18 Brush, Candida G., et al. "Growth-oriented women entrepreneurs and their businesses: A global research perspective." *Edward Elgar Publishing* (2006). Itani, H., Sidani, Y., and Baalbaki, I. "United Arab Emirates female entrepreneurs: motivations and frustrations." *Equality, Diversity, and Inclusion: An International Journal* (2011).

## 6. Socio-political Instability

- **Conflict Zones:** Some OIC Member Countries are affected by political instability, conflicts, and economic sanctions. This creates uncertainty and can discourage entrepreneurial ventures. Youth and women in conflict-affected areas may face higher levels of poverty and unemployment, further hindering their ability to start businesses.
- **Policy Support:** In some regions, policies aimed at fostering entrepreneurship are either underdeveloped or not adequately implemented. Support programs specifically targeting women and youth are often limited or poorly executed.<sup>19</sup>

## 7. Balancing Religious and Cultural Expectations

- **Conservative Values:** Entrepreneurs may need to navigate business practices that align with Islamic values, such as adhering to halal standards or avoiding industries considered haram. This can be more complex for women, as conservative religious expectations may conflict with modern business models or international business practices.
- **Sharia Compliance:** For entrepreneurs seeking Islamic financing, ensuring Sharia compliance adds an additional layer of complexity to business operations and access to financial resources.<sup>20</sup>

## Strategies for Enhancing Youth Employment and Entrepreneurship in OIC Member Countries

Enhancing youth employment and entrepreneurship in OIC Member Countries requires a multifaceted approach that addresses economic, educational, cultural, and structural challenges. The following strategies aim to promote sustainable development while respecting the unique cultural and religious contexts of Islamic societies:

### 1. Enhancing Education and Skill Development

- **Technical and Vocational Education and Training (TVET):** Many OIC Member Countries need to focus on aligning educational programs with market needs. Expanding TVET programs that emphasize skills such as coding, digital literacy, and trade skills can help youths find employment opportunities in growing industries.
  - **Example:** Countries like Malaysia and Türkiye have invested in TVET programs, significantly enhancing employability for youths.<sup>21</sup>
- **Entrepreneurship Education:** Integrating entrepreneurship into school curricula can foster a mindset of innovation and self-employment among young people. Programs that teach financial literacy, business planning, and leadership can empower youth to start their own ventures.<sup>22</sup>

19 Stephan, Ute, et al. "Entrepreneurship and conflict: Examining the impact of conflict on entrepreneurial activity." *Entrepreneurship Theory and Practice* (2015). OECD. "Women's Economic Empowerment in Selected MENA Countries: The Impact of Legal Frameworks." *OECD Publishing* (2020).

20 El-Gamal, Mahmoud A. "Islamic Finance: Law, Economics, and Practice." *Cambridge University Press* (2006). Ahmed, Habib. "Islamic banking and finance: An integrative approach." *Edward Elgar Publishing* (2011).

21 UNESCO, "Technical and Vocational Education and Training (TVET) in the Arab Region," 2020.

22 OECD, "Entrepreneurship Education in the MENA Region," 2019.



## 2. Access to Finance and Investment

- **Islamic Finance Models:** Islamic finance, which prohibits interest (riba), can be leveraged to create ethical investment opportunities for youth entrepreneurs. Financing models like *mudarabah* (profit-sharing) and *musharakah* (joint venture) align with Islamic principles and can support startup funding.
  - **Example:** Islamic microfinance institutions, such as Akhuwat in Pakistan, provide interest-free loans to support youth entrepreneurs.<sup>23</sup>
- **Public-Private Partnerships (PPP):** Governments can collaborate with private companies to fund entrepreneurship development programs, provide seed capital, and create innovation hubs. Special funds targeting youth start-ups could enhance entrepreneurship rates.
  - **Example:** The Kingdom of Saudi Arabia's Vision 2030 supports PPP initiatives aimed at boosting entrepreneurship.<sup>24</sup>

## 3. Encouraging Digital Entrepreneurship

- **E-Commerce and Online Platforms:** Expanding access to digital infrastructure, particularly in rural areas, allows youth to tap into global markets. Training in e-commerce, digital marketing, and freelancing platforms can provide significant employment opportunities.
  - **Example:** Egypt has seen a rise in youth-driven online businesses, benefiting from growing internet penetration and digital platforms like Souq.com and Jumia.<sup>25</sup>
- **Tech Incubators and Accelerators:** Establishing tech incubators and innovation hubs that provide mentorship, resources, and networking opportunities can boost youth start-ups. These centers can also connect entrepreneurs with venture capitalists.
  - **Example:** Tunisia's *Start-up Act* has created a favorable environment for youth tech entrepreneurs through incubation programs and funding.<sup>26</sup>

<sup>23</sup> Iqbal and Mirakhor, "An Introduction to Islamic Finance: Theory and Practice," 2011.

<sup>24</sup> Saudi Vision 2030, "Economic and Social Reforms in Saudi Arabia," 2016.

<sup>25</sup> World Bank, "Digital Entrepreneurship in the Middle East and North Africa," 2020.

<sup>26</sup> The World Bank, "Supporting Entrepreneurship in Tunisia through the Startup Act," 2021.

## 4. Creating an Enabling Policy Environment

- **Regulatory Reforms:** Simplifying the process of business registration, reducing bureaucratic red tape, and offering tax incentives for start-ups are crucial for enabling youth entrepreneurship. Governments should also establish clear legal frameworks for venture capital and angel investment.
  - **Example:** The United Arab Emirates' efforts to streamline business processes and create free zones have attracted many young entrepreneurs.<sup>27</sup>
- **Youth-Specific Policies:** Governments need to adopt targeted policies that address the specific needs of young people, including flexible labor laws, special grants, and mentorship programs. National strategies for youth development should be integrated with broader economic policies.<sup>28</sup>

## 5. Promoting Social Entrepreneurship

- **Leveraging Islamic Principles for Social Good:** Islamic teachings on social justice and community welfare can be utilized to promote social entrepreneurship. Youth entrepreneurs can be encouraged to develop businesses that address social challenges such as education, healthcare, and environmental sustainability, contributing to *ummah* (the global Muslim community).
  - **Example:** Indonesia's *Baitul Maal wat Tamwil* (BMT) model, combining microfinance and social enterprise, has empowered youth by promoting economic self-reliance and social welfare.<sup>29</sup>
- **Support Networks and Mentoring:** Social entrepreneurship accelerators can provide mentorship, funding, and training for youth, particularly in sectors like education, clean energy, and sustainable agriculture.<sup>30</sup>

## 6. Utilizing the Informal Economy

- **Formalizing Informal Sectors:** In many OIC Member Countries, the informal economy plays a significant role in youth employment. Governments can develop strategies to integrate informal workers into the formal economy by offering them access to finance, training, and legal protections.<sup>31</sup>
- **Boosting Agricultural Employment:** Given the importance of agriculture in many OIC Member Countries, promoting agro-entrepreneurship can engage youth in sustainable farming practices, food processing, and agri-business ventures. Access to technology and markets is crucial for success in this sector.<sup>32</sup>

27 UAE Ministry of Economy, "National Youth Strategy 2020."

28 International Labour Organization (ILO), "Youth Employment Policies and Programs in the Arab States," 2018.

29 Mohammad Yunus, "Social Business and Islam: The Real Connection," 2015.

30 Ashoka, "Social Entrepreneurship in the Middle East and North Africa," 2020.

31 ILO, "The Transition from the Informal to the Formal Economy in Arab States," 2021.

32 FAO, "Youth Employment in Agriculture as a Solid Solution to Ending Hunger and Poverty in Africa," 2019.

## 7. Encouraging Collaboration and Regional Integration

- **Intra-OIC Cooperation:** OIC Member Countries can collaborate through organizations like the Organisation of Islamic Cooperation (OIC) to share best practices, technology, and financial resources to promote youth employment. Cross-border initiatives that facilitate trade, skills exchange, and regional entrepreneurship networks can drive economic growth.<sup>33</sup>
- **Youth-Focused Exchange Programs:** Establishing youth exchange programs across OIC Member Countries can help young people gain exposure to different markets and business environments, enhancing their entrepreneurial skills.<sup>34</sup>

## Conclusion

Entrepreneurship for youth and women in OIC Member Countries is fraught with unique challenges shaped by a combination of legal, financial, and cultural constraints. However, emerging trends such as Islamic finance, educational reforms, and growing networks for women entrepreneurs show promise in addressing these challenges.

Focusing on education, financial support, regulatory reforms, and technological innovation, these countries can unlock the potential of their young populations and drive sustainable economic growth. With concerted efforts from governments, private sectors, and international organizations, OIC Member Countries can turn the challenges of youth unemployment into opportunities for entrepreneurial success.

At the end of the day, OIC Member Countries need a comprehensive approach that combines educational reform, access to finance, digital innovation, and supportive policies to enhance youth employment and entrepreneurship. By leveraging Islamic principles and modern economic strategies, Islamic countries can create an environment that supports the aspirations of their youth while promoting sustainable development.

33 OIC, "OIC Youth Strategy: Framework for Action on Youth Development in the Muslim World," 2017.

34 UNDP, "Youth Exchange Programs for Sustainable Development in the Arab Region," 2019.

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## Balancing Roles: Individual's and State's Contributions to Achieving Food Production and Security in the OIC Member Countries

**Marwan HADDAD<sup>1</sup>**

### Abstract

Food security and food production are crucial for the development and sustainability of any society or country. In Islam, these matters have been given significant attention, and Muslims are encouraged to play a leading role in securing and perpetuating them. The teachings of Islam emphasize individualism as the foundation of a Muslim's faith and consider it as a central aspect of their actions and relationships, which will be accounted for on the Day of Resurrection. The State in any Muslim country is the one responsible for securing food availability, access, and security. Harmonizing the roles of sector actors, individual Muslim, the State, and private sector or other social groups is an essential element not only to food production and security but also to successful country's development. An integrating structured framework was presented and discussed. Five integrating features or domains were proposed and discussed including education, knowledge, and awareness, social welfare, state policies and economic empowerment, Islamic ethical guidelines, and collaborative frameworks and projects. The links between the roles were also presented and discussed. Applying the proposed framework will help Muslims individuals and States to optimize their work and achieve food production and security, contribute to global food production, and ensure sustainable use of resources and development.

### Introduction: Food Production and Security

Muslims established a prosperous and flourishing civilization that spanned over huge geographic areas for more than fourteen centuries and contributed to the development of all legislations, sciences, and technologies while applying the principles of justice, equity, and equality in governance (Haddad, 2024).

The Arab region has an arable land area of 197 million hectares (ha), and currently, 80 million hectares are cultivated, only about 40% of the total. The cropland area (arable land and permanent crops) increased by only 16.3 million ha – from 49.32 million ha in 1961 to 65.6 million ha in 2008 (GSLAS, AFESD, AMF, & OAPEC, 2011), or an increase of 0.61 percent annually. About 23% of agricultural production represents seasonal crops and 4.9% permanent crops. Workers in agriculture, represent 23% of the total workforce in the Arab region, and the number is constantly declining due to migration from the countryside to the city (FAOSTAT, 2018). Seven countries (Algeria, Egypt, Iraq, Morocco, Sudan, Syria, and Tunisia) contribution to Arab agricultural gross domestic product (GDP) amounted to 85 percent in 2008 (Saab, 2012) (Sadik, Nimah, & Alaoui, 2011).

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Food insecurity is a significant issue in many countries, including those with majority Muslim populations. Factors that contribute to food insecurity include poverty, climate change, conflict and displacement, inadequate agricultural infrastructure, and inefficient food distribution systems (Gillespie & Haddad, 2017).

In many Muslim countries, poverty is a major cause of food insecurity. The World Bank estimates that nearly one-third of people in the Muslim world live on less than \$1.90 a day, which is the international poverty line. Poverty is closely linked to hunger and malnutrition, as people with limited financial resources often struggle to afford sufficient food for themselves and their families (The World Bank, 2020).

Climate change is also a significant contributor to food insecurity in Muslim countries. Many Muslim countries are located in regions that are already experiencing the effects of climate change, such as droughts and floods. These events can lead to crop failures, livestock deaths, and food shortages (Islamic Development Bank, 2021).

In addition, conflict and displacement can exacerbate food insecurity in Muslim countries. Ongoing conflicts, such as those in Syria, Yemen, and Afghanistan, have resulted in mass displacement and disrupted food systems, leading to hunger and malnutrition among affected populations (World Food Programme, 2021).

Inadequate agricultural infrastructure and inefficient food distribution systems also contribute to food insecurity in many Muslim countries. Many countries in the Muslim world have limited access to modern agricultural technologies and irrigation systems, which can reduce crop yields and limit food production. In addition, inefficient food distribution systems can result in food waste and uneven distribution of food, leaving some populations without access to sufficient food (FAO, 2018).

In early Islamic civilizations, such as the Andalusia, Abbasid, and Umayyad periods, individual Muslims developed sophisticated agricultural systems and techniques, including knowledge development, irrigation methods and infrastructures, and land redistribution. This reflects the fusion of individual initiative and state-led agricultural policies aimed at enhancing food security.

## Islamic View of Individuality

In Islam, individuality is recognized and respected, but it is balanced with the collective welfare of the Muslim community (ummah). Every person is considered unique, with their own abilities, talents, and qualities that contribute to the community as a whole. At the same time, Islam also recognizes the importance of individual responsibility and accountability, with each person being held accountable for their actions on the Day of Judgment [Quran 19:80, 19:95, 2:281, 3:25, 14:51, 40:17, 74:38, 2:225, 2:286, 2:134, 2:141, 2:48, and 2:123, (Esposito, 2002), (El-Rouayheb & Schmidtke, 2016), (Le Gai Eaton, 1941/1985), (Ahmed, 2018). Islam emphasizes personal responsibility and accountability for one's actions. Each individual is responsible for their own deeds and will be held accountable on the Day of Judgment (Siddiqui, 1996). Prophet Muhammad (PBUH) said in this regard:

- "None of you truly believes until he loves for his brother what he loves for himself." (Sahih Al-Bukhari)
- "The best of people are those who are most beneficial to people." (Sahih Al-Bukhari)

Islam encourages the development of strong social bonds and promotes community values such as kindness, compassion, and generosity. Muslims are encouraged to work together to build a just and equitable society and to support one another in times of need (Al-Attas, 1985) (Al-Ghazali, 1997).

In Islam, the family unit is considered the foundation of society, and individuality is nurtured within the context of the family. The family is responsible for providing guidance and support to individuals as they face the challenges of life (Abu-Zahra, 1987) (Abdalati, 1995).

There are several links between individuality and food production and security in Islam, as food production is considered as an important aspect of individual responsibility and community welfare. Here are some examples:

- Islamic teachings emphasize the importance of working for one's sustenance and not relying solely on others for support. This emphasis on self-reliance and individual responsibility extends to food production, with Muslims encouraged to grow their own crops and raise their own livestock as a means of providing for themselves and their families.
- Islam also recognizes the importance of sharing food with others, particularly those in need. The act of giving food to the poor and the hungry is considered a virtuous deed in Islam, and Muslims are encouraged to donate a portion of their food production to those in need.
- The concept of halal food, or food that is permissible under Islamic law, also emphasizes individual responsibility and accountability. Muslims are expected to ensure that the food they consume is halal, which includes the proper slaughter and preparation of meat, as well as avoiding certain types of food and drink that are considered haram or forbidden.
- Food production and distribution is also closely tied to the concept of zakat, or the obligatory charitable giving in Islam. Muslims are required to donate a portion of their wealth, including agricultural products, to those in need, which helps to ensure that the basic needs of the community are met.

Individual responsibility is essential in producing halal (permissible) food that meets Islamic dietary laws. Muslims are expected to ensure that the food they consume is produced in a halal manner, and that it is free from any impurity or contamination. At the same time, public and collective responsibility are equally important in Islamic food production and security. Muslims are encouraged to work together to ensure that food is produced and distributed in a fair and equitable manner, and that it is accessible to all members of society.

Islam prohibits individual Muslims from hoarding of essential goods, which promotes the equitable distribution of food resources. This rule encourages community responsibility and prevents individual actions from disrupting societal food security.

The Muslim individual descends from a Muslim family, and whenever the family is committed to Islam and proper Islamic education, the goodness of this individual will be higher and their service to their family and society will be higher. Maintaining good Islamic families that live up to Islamic standards is a firm step towards having good Muslim individuals who will contribute to society's development in all fields, including food production and security, and who will uphold the principles of Islam in their actions and interactions with others (Quran 2:233, 4:1, and 33:6).

As individuals, Muslims are expected to uphold the core principles and values of Islam, including the belief in one Allah (SWT), following the teachings of the Prophet Muhammad, and practicing the five pillars of Islam. They are also expected to live their lives in accordance with Islamic ethics and morality, which include honesty, compassion, kindness, and respect for others (Al-Faruqi, 1982).

Muslim individuals can contribute to their communities and the wider public by engaging in charitable work, volunteering, and promoting social justice and equality. They can also participate in political and civic activities to advocate for their rights and the rights of others.

In Islam, individuality and community roles in food security are deeply intertwined with the principle of *fard kifayah* (collective duty). The concept of *fard ayn* (personal obligation) urges Muslims to manage resources responsibly, avoid waste (*israf*), and to ensure self-sufficiency through legal means, which contributes to food security (Sanjotis, 2012). *Zakat* (obligatory charity) and *Sadaqah* (voluntary charity) represent a solid act of charity to support food production and distribution to the needy, further strengthening food security through personal initiative (WFP, 2020).



## **Main Responsibility of Food Production and Security in Islam**

It was found that the main responsibility for food security in an Islamic State or society falls on the State and not on individual Muslims. However, with the management process between Islamic State and people, there is a responsibility on each individual Muslim to work to obtain his sustenance including food. Therefore, food security including production, processing, distribution, storage and other related work should be undertaken by all Muslims. Achieving food security in an Islamic State is thus the responsibility of the State, from a management point of view, and of the individual, from an implementation point of view. This is a top-down management approach (from the leadership to the people) (Haddad, 2012).

## **Examples of Muslim Contributions in Food Production and Security**

The following examples demonstrate the diverse approaches that Muslim's have taken to ensure food production and security throughout history, including the development of new technologies and techniques, investment in infrastructure and research, and the establishment of financial institutions to support agricultural development.

### **1. General**

Individual Muslims have in general made significant contributions to human civilization throughout the history of Islamic civilization in various fields, including science, mathematics, philosophy, literature, art, architecture, medicine, astronomy and more. Through their religious teachings and cultural practices, Muslims have played a significant role in shaping agricultural practices and promoting sustainable food systems. The following are some examples of Muslim contributions to food production and security:

1. **Islamic Agricultural Revolution:** From the 8th to the 13th centuries, Muslim societies developed an agricultural revolution, which contributed to the production of various crops such as sugar, cotton, citrus fruits, and spices. They also pioneered new methods of irrigation, animal husbandry, and crop rotation, which allowed for more efficient and sustainable farming practices (Khan, 2000).

Islamic microfinance institutions were initiated by various Islamic scholars and practitioners who sought to promote financial inclusion and address poverty in Muslim communities worldwide (Saeed, 2013).

There are many individuals and organizations involved in the establishment and operation of Islamic microfinance institutions, here some notable figures include:

- Dr. Muhammad Yunus: Dr. Yunus is a prominent figure in microfinance and founded the Grameen Bank in Bangladesh, which operates on Islamic principles (Khan, 2010).
- Mohammad Zubair Mughal: He is the CEO of AlHuda Centre of Islamic Banking and Economics, which provides consultancy services to Islamic microfinance institutions around the world (Rammal & Zurbruegg, 2007).
- Dr. Amjad Saqib: He is the founder of the Akhuwat Foundation, a Pakistan-based Islamic microfinance institution that provides interest-free loans to impoverished individuals and small business owners (Iqbal&Mirakhor, 2007).
- Dr. Mohammad Amjad: He is the founder of Islamic Relief Worldwide, an international charity organization that operates Islamic microfinance programs in various countries to support vulnerable people (El-Gamal, 2006).

**Guest Houses:** One successful and articulate Muslim way of facing hunger and helping the poor, was the guesthouses (Dar Al-Aldiyafeh in Türkiye)(Albayan, 2020) and the Takiyeht in Palestine (Al-Ghad, 2016) (Salleh, 2019) where food is handed out, free of charge, to specific groups, families, and individuals on a daily basis.

**Doing righteous deeds:** Eighty times in the Qur'an, and because of its high importance, the faith of Muslims is related to and connected with a righteous work or deed done by a Muslim. Using forbidden means to obtain worldly benefits (greed or tama') is unethical, unacceptable, and forbidden in Islam (Quran 9:24 and 34, and 4:29 and 32) (Emrullah, Hâdimî, & Işık, 2014). Righteous deed encompasses the whole of life, so everything that benefits the human being, the universe and life is considered a righteous deed that Islam requires. The intention was pure for the sake of Allah. Righteous deed is considered in Islam as:

- Charity: giving to the poor , deprived, or underprivileged (Quran 22:77), (Sahih Al-Bukhari)
- Cause of success (Quran 103:1-3)
- Expiation of sins (Quran 29:7)
- Reason for forgiveness (Quran 5:9 , 18:110, and 19:96)
- Reason for being among the best (Quran 98:7)

Zakat, halal food, fasting, and Sadaqah: Among the most important faith related drivers of individual Muslims and instruments to achieve better food production and security and to minimize poverty in Islamic societies:

- **Zakat:** Zakat is one of the five pillars of Islam, and it requires Muslims to give a percentage of their wealth to charity. This charity can be used to support farmers, provide food to those in need, and fund agricultural development projects. In this way, zakat helps to promote food security and alleviate hunger in Muslim communities (Islamic Relief USA, n.d.).
- **Halal Food:** Muslims are required to eat halal food, which is prepared according to Islamic dietary laws. Halal food is typically considered to be healthier and more sustainable, as it requires animals to be raised in humane conditions and fed a natural diet. By promoting the production and consumption of halal food, Muslims can contribute to more sustainable and ethical food systems (Islamic Food and Nutrition Council of America, n.d.).
- **Sadaqah:** Sadaqah is voluntary charity given by Muslims to help those in need. This can include providing food for the hungry, supporting small-scale farmers, or investing in sustainable agricultural projects. Sadaqah can be used to address food insecurity and promote sustainable food production in Muslim communities (Ali, 2016).
- **Fasting:** Fasting during the month of Ramadan is a practice that is observed by millions of Muslims around the world. During this time, Muslims abstain from food and drink from sunrise to sunset, which helps to develop a sense of empathy and compassion for those who are less fortunate (BBC Religions, n.d.).
- **Food banks:** Muslim organizations and charities have also established food banks to provide food to those in need. These food banks often work in partnership with local organizations to distribute food to the homeless, refugees, and other vulnerable groups (Islamic Relief Canada, n.d.).

**Truth and mercy in the lives of individual Muslims:** In the context of food production, the Islamic concepts of truth and mercy can be related to the way Muslims approach agricultural practices and the production of food. In Islam, truth is highly valued, and Muslims are encouraged to be truthful in all their actions, including their work. This can translate to a focus on honesty and transparency in food production, such as accurately labeling food products, providing accurate information on farming practices, and using sustainable and ethical methods of production. Additionally, mercy is a fundamental value in Islam, and Muslims are encouraged to show compassion and kindness to all living beings, including animals and the environment. This can be reflected in the way Muslims approach food production by utilizing sustainable and ethical farming practices that promote the welfare of animals and minimize harm to the environment (Zulkifli, 2015). The Prophet Muhammad (PBUH) said in this regard that highlights the importance of speaking the truth and showing mercy and kindness to others, including in the production and distribution of food:

- “Speak the truth even if it is bitter.” (Sunan Ibn Majah)
- “He who is not merciful will not be shown mercy.” (Sahih Al-Bukhari)
- “Whoever is kind, Allah will be kind to him; so be kind to people on earth. He who is in heaven will have mercy on you.” (Source: Sahih al-Bukhari 3465)

## 2. Food Security

Individual Muslim's role in food production and security includes service provision and problem solution at the grassroots level with the maximum participation of community people.

Muslims as individuals have made significant contributions to food production and security throughout history, particularly in the field of agriculture. Islamic civilization developed advanced irrigation and farming techniques and technologies that have influenced agricultural practices and food production around the world (Shahbaz & Athar, 2016). The following include examples of such irrigation and farming practices applications and experiences done by individual Muslims for increasing food production and security:

Landowners excavated water wells and 'uyūn (flowing springs), and used an underground channel to bring water from a distant aquifer (qanāt). (Al-Iṣṭakhrī, 1870) (Al-Ya'qūbī, 1892) Irrigation channels as well as small dams being constructed. (Marcus, 2010).

It was concluded (Luis José García-Pulido, and Sara Peñalver Martín, 2019) that the systems of the hydraulic water supply systems created by the Arab Muslims in the Andalusia cities, castles, and their agricultural areas consisted mainly of aljubes (large water cisterns) which was supplied with the rainwater collected from the yards of these cities and castles. Ceramic pipes and manholes (barrier chamber) or water channels or irrigation ditches were used to connect between the cistern and the points of use.

The Aramaic civilization, which was characterized by manufacturing and constructing pottery pipes for transporting water to huge long distances over difficult terrain for irrigation and water supply (Ahmed Ali, 2011).

Muslims in the third century (c. 950 AD) were the first to introduce water networks/systems using water pipes made of lead or zinc into homes, bathrooms and mosques. The book "Industries of the Arabs" included drawings and maps of water networks in some Islamic capitals ("Science by Muslims," n.d.) (Al-Serjani, 2017).

Engineers like Al-Jazari designed for the first time in history water-lifting machinery powered by water and gravity, and simulating the principle of the balance (windmills and waterwheels, steel mill, bridge mill, double-twin acting principle water pumps, camshaft, crankshaft, and crank slider) aimed to bring water supply directly to local people in cities and enhance irrigation to increase the framing capacity (Donald H., 2012) (Muzaffar S, 2011).

A variety of industrial watermills that uses hydropower as a driving force were used in the Islamic world, including gristmills, hullers, sawmills, ship-mills, stamp mills, steel mills, sugar mills, and tide mills (Lucas, 2005).

Muslims used engineering devices to measure the height of the land and to dig irrigation channels below the surface of the earth (Al-Karkhi, 1359 H). Finally, they invented machines to measure the level of river water (Al-Maqrizi, 1967).

Muslim agro-experts, Ibn Bassal, Ibn Hajjaj and Ibn Al-'Awwam explained in detail the types of fertilizers and their suitability for certain kinds of earth and plants. They also discussed the use of tree leaves for the soil (Ibn Bassal, 1995) and regarding compost fertilizers.



### 3. Food Production

Muslims have a rich history of technological innovation in various fields, including food production. Many contributions to food production have had a lasting impact on global cuisine. Some examples of food production technology developed by Muslims over the years include:

Muslims during the Abbasid dynasty (750-1258 AD) developed a sophisticated system of crop rotation and land management that helped to increase agricultural productivity. They also established marketplaces and trade routes to facilitate the distribution of food and other goods (Koutoub Moustapha Sano, 2010).

In the 19th century, the city of Tunis in North Africa became a major center of olive oil production, with its oil considered among the highest quality in the world. The Tunisian government invested in infrastructure and research to support individual farmers and the olive oil industry, which helped to ensure food security and economic stability for the region (Ridha Abdennadher, et al., 2015).

In the early 20th century, the establishment of the Agricultural Bank of Egypt helped farmers by financing land reclamation and irrigation projects, leading to increased food production and improved food security for the country's population (Ian J. Bickerton, 2004).

The Green Revolution of the 1960s and 1970s, in Pakistan and Egypt, which encouraged and supported farmers to develop their farms, resulted in significant increases in food production (Habib Siddiqui, 2000).

**Irrigation and water management:** Muslim scholars made significant advancements in the field of irrigation and water management, which allowed for more efficient and sustainable agriculture. They introduced new technologies such as the qanat, a system of underground tunnels and wells used for irrigation (Zainal Abidin Mior Ahmad) (Nozar Samani) (Amar, Z., 2016), and the shaduf, a manual water lifting device used to transfer water from a lower to a higher level. These innovations helped to increase agricultural productivity and crop yields.

**Distillation:** Muslim chemists and alchemists developed the process of distillation, which allowed for the production of purified water and the extraction of essential oils from plants. This technology was also used to produce alcohol and perfumes (Saif, n.d.) (Al-Hassan, n.d.).

**Coffee roasting and brewing:** Muslims were instrumental in the spread of coffee drinking and the development of coffee roasting and brewing techniques. The first coffee houses were established in the Muslim world, and the drink quickly became popular throughout the region (Jonathan Morris, n.d.).

**Spice production and preservation:** Muslims played a key role in the trade and production of spices, such as cinnamon, cardamom, and pepper. They also developed methods of preserving and transporting these spices, which were highly valued in Europe and other parts of the world (Lister M. Matheson, n.d.).

**Bread-making:** Muslims were pioneers in the development of bread-making technology, including the use of yeast and the development of different types of bread, such as pita, naan, and lavash (Thomas S. Bianchi, n.d.).

**Food preservation:** Muslims developed techniques for preserving meat, such as salting, drying, and smoking. These methods allowed meat to be transported over long distances and were instrumental in the development of the global trade in meat products. Muslim scholars also made important contributions to food preservation including pickling (Todd C. Ruehle, n.d.). These methods allowed food to be stored for longer periods of time, which was especially important in regions where food scarcity was a problem. These are just a few examples of the many contributions that Muslims have made to food production technology over the centuries.

**Crop selection and cultivation:** Muslim scholars also made important contributions to crop selection and cultivation. They introduced new crops to regions where they had not previously been grown, such as citrus fruits, cotton, and sugar cane. They also developed new cultivation techniques, such as the use of crop rotation and the selection of drought-resistant varieties, which helped farmers adapt to changing environmental conditions (Al-Hassani, S. T. S., Al-Khalili, J., and Al-Murani, 2010).

**Culinary techniques and ingredients:** Muslim cuisine has had a significant impact on global cuisine, introducing new culinary techniques and ingredients that have become staples in many countries. For example, the use of spices such as cinnamon, cardamom, and saffron in cooking, as well as the development of new dishes such as biryani and kebabs, are all examples of Muslim culinary contributions (Faiz, S., and Faiz, U., 2019).

During the Islamic period in Spain (8th to 15th centuries), the city of Cordoba became a major center of agriculture and food production. The region was known for its olive groves. Muslim farmers produced high quality olive oil that was exported throughout the Islamic world. Other crops grown in the region included grapes, citrus fruits, and almonds (Roden, C., 2011) (Menocal, M., 1996).

The Ottomans, who ruled over a vast empire from the 14th to the 20th centuries, placed a strong emphasis on agriculture and food production. They implemented policies to promote farming and support farmers, such as providing land grants and tax incentives to farmers. This resulted in farmers established large-scale agricultural estates to produce crops for export (Cosgel, M., and Ralitza D., 2016).

In modern times, countries with predominantly Muslim populations, such as Indonesia, have implemented food security policies to ensure adequate food supply for their citizens. For example, Indonesia has launched a program called "Food Estate" which aims to increase food production and reduce imports by developing large-scale agricultural projects (Siswadi, S., 2016) (Satriastanti, F., 2020).

#### 4. Agri-Food Knowledge Development

The following individual Muslims are some of the major contributors to the development of agriculture and food production, and food security in the Islamic world. Their pioneering work has significantly influenced modern agricultural practices, providing valuable insights into the cultivation of crops and the use of plants for medicinal purposes, as well as practical information on animal husbandry and irrigation systems. Through their contributions, they helped to advance agricultural knowledge and practices in the Islamic world and beyond, leading to improved food security and sustainability in many regions of the world. Their works continue to be studied and appreciated worldwide today, as we seek to address the global challenges of food security and sustainable agriculture.

- Ibn Bassal: He wrote extensively on agricultural practices, including irrigation, crop rotation, and soil conservation.
- Ibn al-Awwam: He wrote the famous book "Kitab al-Filaha," which provides detailed information on crop cultivation, irrigation, animal husbandry, and the use of manure as fertilizer, the benefits of crop rotation, and the use of irrigation systems.
- Abu al-Khayr al-Ishbili: He wrote the book "Kitab al-Filaha al-Maqsura," which focuses on the cultivation of fruits and vegetables in arid environments. The book contains detailed information on the selection of crops, the use of irrigation systems, and the management of soil fertility.
- Abu Zakariya al-Tawashi: He wrote about the use of animal manure as a fertilizer for crop production. In his book "Kitab al-Nabat," he provides detailed information on the preparation and application of manure as a fertilizer, as well as the benefits of using this natural fertilizer for crop growth.
- Ibn Wahshiyya: He wrote the book "Kitab al-Filaha," which contains detailed information on crop cultivation, animal husbandry, and irrigation systems (E. Atiyeh, ..).
- Ibn Luyun: He wrote the book "Kanz al-Fawa'id fi Tanwi' al-Mawa'id," which contains detailed information on crop cultivation and soil management (M. Brett and E. McEwen, 2012).
- Fatima al-Fihri: Al-Fihri was a Muslim woman who founded the University of al-Qarawiyyin in Fez, Morocco, in the 9th century. The university included a school of agriculture, which provided education and training in crop cultivation, animal husbandry, and other agricultural practices (Saliba, G., 2007).
- Haji Muhammad Din Muhammad: Haji Muhammad Din Muhammad developed a new variety of wheat called "Khyber-87," which was resistant to diseases and pests and had higher yields than other varieties (Rosenthal, F., 1968).
- Al-Jazari: Al-Jazari invented and developed various machines and mechanisms for irrigation and water management, including water wheels, pumps, and water clocks. His innovations helped to improve water efficiency and crop yields, which in turn helped to improve food security in many parts of the Islamic world (Abou-Zeid, A. H., (2015).

## Roles and Responsibilities of Food Production and Security Actors

The main domains of an individual's role in food production and security can be categorized into three areas :

- **Agricultural domain:** This domain focuses on the production of food through farming and agriculture, including crop production, animal husbandry, and sustainable agricultural practices.
- **Economic Domain:** This domain relates to the economic factors that influence an individual's role in food production and security, including access to resources such as land, credit, and markets, as well as the economic policies that shape food production and distribution.
- **Social Domain:** This domain encompasses the social factors that affect an individual's role in food production and security, including cultural practices, gender roles, education, and social networks.

Individual responsibility in development including food production and security:

- **Personal accountability and ethics:** Islam emphasizes individual moral responsibility. Every Muslim is expected to uphold ethical standards, contribute to social welfare, and strive for personal excellence. Personal development is seen as a precursor to social development (Rahman, F.,1980).
- **The pursuit of knowledge:** The pursuit of knowledge is a personal duty. Education and intellectual growth are crucial to individual empowerment and societal progress (Esposito, J. L., 2002).
- **Economic Participation:** Individuals are encouraged to engage in economic activities that benefit both themselves and society. Islam promotes fair trade, honesty in business, and the sharing of wealth through zakat (Kuran, T., 2004).

Together, these domains and responsibilities play a critical role in ensuring food security and sustainable food production for individuals and communities. Understanding how these domains interact is essential for developing effective policies and strategies for achieving food security and sustainability.

Role of the group or the state in development

- **Community Welfare:** The community (ummah) plays a crucial role in supporting individuals, particularly through charitable acts of charity (zakat, sadaqah). Community initiatives can address social issues such as poverty and education (Benthall, J., 1999).
- **State responsibility:** The Islamic state has a duty to ensure justice, security, and the equitable distribution of resources. The state should create policies that promote social welfare, economic development, and environmental protection (Chapra, M. U.,1992).
- **Legislation and governance:** Islamic law (Sharia) guides the state's role in regulating economic activities, social justice, and moral conduct. Good governance and adherence to Sharia principles are essential to the state's legitimacy and effectiveness (Kamali, M. H., 1998).



The state plays a vital role in achieving food production and security through the following responsibilities:

- Policy development: Establishing agricultural and food security policies that encourage sustainable farming practices.
- Subsidies and support: Providing financial aid, seeds, technology, and training to farmers to increase production.
- Research and innovation: Investing in agricultural research and development to improve crop yields and resilience to climate change.
- Infrastructure and supply chains: Developing infrastructure such as roads, storage, and irrigation systems to support food distribution.
- Regulation and standards: Ensuring food safety and quality through regulatory frameworks and monitoring systems.
- International trade: Promoting trade agreements and protecting food security through import/export policies.
- Crisis management: Addressing emergencies like droughts, natural disasters, or conflicts that disrupt food supply chains.

By fulfilling the above roles and responsibilities, the Islamic State ensures the availability, accessibility, and affordability of food for its population.

The non-governmental and other social groups have the responsibility for community support and welfare, social and religious cohesion, and provide funding and economic support for developmental projects.

## The Proposed Harmonization Framework

Islam offers a comprehensive framework and a collaborative effort that balances the roles of individuals, non-governmental groups, and the state in all developmental activities and processes. The natural process between individual and collective roles is vital. Individuals contribute to community welfare through personal development, ethical conduct, and economic participation, while the community and/or State provide the necessary governance, legal and economic support, and infrastructure Nasr, S. H. (2004). Based on this, an integrating framework was proposed (see Figure 1).

The proposed integrated approach, in the author's view promotes holistic and sustainable development, balancing personal responsibilities with collective goals through appropriate education, awareness, training, and extension services, preparing and providing integrated developmental plans and approach, and presenting and executing community collaborative related projects. Figure 1 is an illustration of the three actors' roles and responsibilities along with the proposed integrated framework for agricultural production and food security.

Harmonizing the roles of individuals, social groups, and the state in development within an Islamic framework involves a balanced approach in which ethical guidelines, and collaborative efforts drive social welfare and economic progress. All parties must understand and fulfill their roles and responsibilities and support initiatives that promote inclusive and sustainable development.

## **Framework Applicability and Prospects**

The applicability of the proposed integrating framework and the future prospects of Muslim nation's successful development in relation to food production and security consist of closely maintaining the following five integrating elements:

1. Education, knowledge, and awareness: Maintaining proper Islamic education to individual Muslim and from young age is very important in building his faith and ethics. Equipping him with the necessary knowledge and awareness about his life and work is important for a successful and productive Muslim to be a farmer, a trader, an industrialist, a trade or political unionist, a state, an army, or any other person.
2. Social welfare: The present Islamic social welfare sector including charity and waqf is not well organized. It is mostly static and in some cases corrupt and needs much correction, improvement, and upgrade to serve proper developmental goals including those related to food production and security.
3. State policies and economic empowerment: Modern approaches to set appropriate policies to achieve the required national food production and security are important aspects in addition to appropriate economic empowerment of state organs as well as sector actors.
4. Islamic ethical guidelines: A work or development without Islamic ethics is empty and ineffective. These ethical guidelines for maintaining ethics in a society involves fostering shared Islamic values, promoting accountability, and encouraging Islamic moral behavior at individual, institutional, and governmental levels.

Collaborative frameworks and projects: Maintaining collaborative frameworks and projects within Islamic societies requires fostering trust, communication, and shared goals.

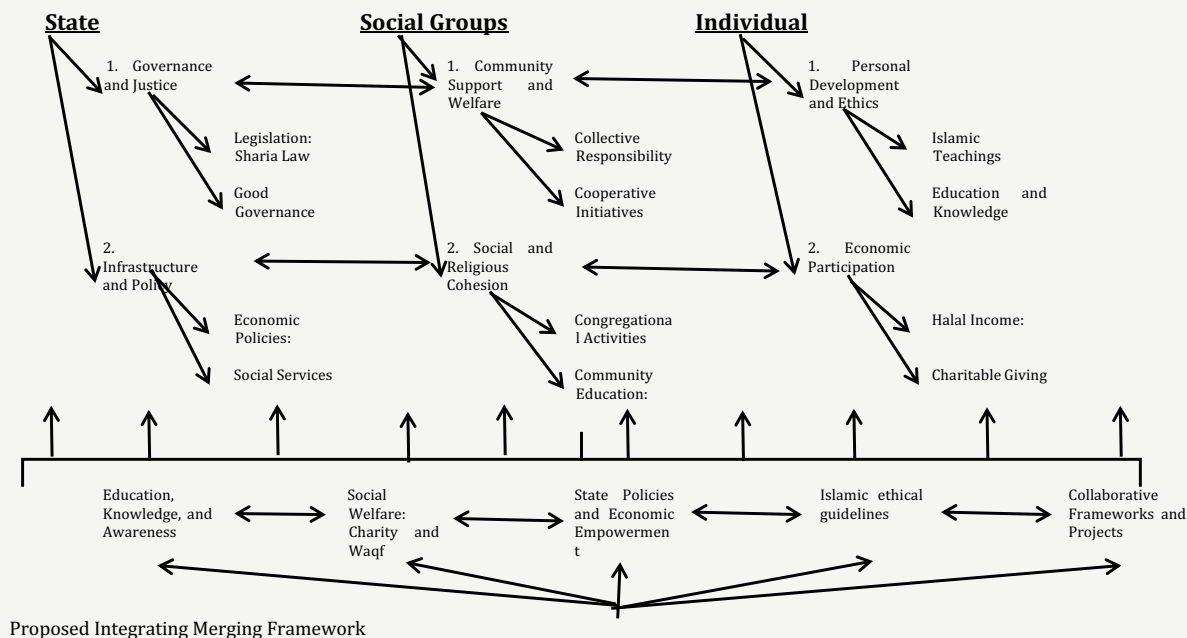


**Figure 1 Proposed Structure of the Integrating Framework**

To achieve that we need to define clear objectives, use open communication among all actors, inclusion and participation of all sector actors in decision making, maintain mutual accountability and resource sharing and cooperation, and set mechanisms to address effective and timely conflict resolution among sector actors.

By maintaining and combining these integrating elements Muslim society can achieve successful development in all fields including food production and security.

Addressing these elements now and in the future in Muslim societies will require a coordinated effort from governments, farmers, consumers, and other stakeholders. This will involve investing in sustainable agricultural practices, reducing food waste, promoting more plant-based diets, improving food safety and quality standards, and supporting rural development and agricultural education. The first three action are centered on individual behavior. The success of the last two actions depends on the individual. Accordingly, Muslims need to be prepared in terms of strengthening faith and technical and technological ability to be able to successfully achieve the three actions. The on-boarding process includes appropriate education, advice, training, and integrated support.

## Concluding Remarks

- Islam is based mainly on the principle of the individual's acceptance of it and the individual's application of Allah's commands and distance from his prohibitions, and accordingly the individual will be held accountable on the Day of Resurrection for his deeds only.
- Islam recognizes and values individuality, but it, also emphasizes the importance of Muslims to rally and work together as one group for the greater good of Muslim society.
- Islam recognizes the importance of food production and security and encourages Muslims to work hard and take care for the land. Islam also promotes the concept of sharing and helping those in need, and encourages moderation and avoiding wastefulness in food consumption.
- The contributions of individual Muslims to civilization have been significant in food production and culinary arts, reflecting the rich intellectual, cultural, and scientific heritage of the Islamic civilization. These contributions continue to inspire and influence people around the world today.
- Achieving food security in an Islamic state is therefore the responsibility of the state, from a management point of view, and of the individual, from an implementation point of view.
- The concepts of truth and mercy in Islam can guide individual Muslims to be responsible stewards of the land and to produce food in a way that is honest, transparent, sustainable, and compassionate towards all living beings.
- The links between the roles of the individual and the state in relation to food production and security in Islam are interrelated and complementary.
- An integrated framework was proposed to achieve food production and security in Muslim countries and societies based on five pillars including education, knowledge, and awareness, social welfare, state policies and economic empowerment,
- The Islamic perspective on sustainable agriculture, reducing food waste, and promoting plant-based diets is based on the principles of responsible stewardship, moderation, and compassion for all living beings.



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## Development of Agriculture in the OIC Member Countries: Sustainable Agricultural Production

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### Introduction

Despite the structural transformation, a process in which the share of industry and services in economies has increased compared to agriculture, the agricultural sector is very critical for many developing countries, including the OIC member countries. It plays an essential role in economic growth, poverty reduction, and development. OIC Member Countries have potential agricultural resources such as water, arable land and human resources and account for a significant share of global agricultural production. With an agricultural land area of 1.36 billion hectares and a population of over 1.9 billion in the OIC Member Countries accounted for more than a quarter of the world's agricultural land area and population. (COMCEC, 2024)

Climate, soil quality, water resources and the diversity of agricultural activities in different geographical regions shape agricultural areas. According to FAO data for 2022, an area of 4.78 billion hectares, representing 36.7 per cent of the world's land surface, is used as agricultural land. Some OIC Member Countries stand among the top countries in terms of production of various agricultural commodities like wheat, barley, rice, cassava, maize, palm oil, cocoa, coffee, rubber, sugar, etc. OIC agricultural gross domestic product (GDP) accounted for 19% of the world's agricultural production). Moreover, the number of people employed in the agricultural sector in OIC Member Countries, accounted for 23.9% of the world agricultural employment. (COMCEC, 2024, SESRIC 2023)

A number of slowly evolving long-term trends and short-term factors have slowed output growth on the one hand and strengthened demand on the other, causing agricultural prices to increase. Compared to the period between 1970 and 1990, when the production of aggregate grains and oilseeds rose by an average of 2.2 per cent per year, the annual growth rate since 1990 has declined to about 1.3 per cent. Many factors have contributed to the gradual slow output growth. These include a reduction of state intervention in the agricultural sectors of developing countries, reduced public support and overall investment in agriculture, and a decline in research and development by governmental and international institutions. The decrease in production growth has also been impacted by resource scarcity issues, notably climate change and water depletion. Every year, 5 to 10 million hectares (25 million acres) of agricultural land are lost because of degradation caused by water shortages (Mittal, 2009).

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This paper aims to provide a comprehensive analysis of the agriculture sector in the OIC Member Countries, initiatives at the OIC and COMCEC levels tracing its evolution from historical beginnings to the present day. By examining key developments, the paper seeks to identify the major challenges facing the sector and to propose actionable recommendations for its future growth.

## Sustainable Agricultural Production in OIC Member Countries

As it is known, while the world population, is approaching 8 billion, increasing by an average of 70 million per year, the world economy is also growing. In addition, according to World Bank data, the ratio of the total population of OIC member countries to the world population is expected to be 25.32 per cent in 2023 and 30.53 per cent in 2050 estimates. Looking at the world population averages excluding China and India, it is expected to be 39.19 per cent for 2023 and 44 per cent in 2050 forecasts. In other words, the population in the OIC geography constitutes  $\frac{1}{4}$  of the world's population in 2023 and  $\frac{1}{3}$  in 2050 targets. The ratio of rural population traditionally engaged in agricultural production to the total population is 42.78 per cent for 2023 and 30.58 per cent for 2050 forecasts within the OIC. This value is 42.70 per cent for 2023 and 32.00 per cent for 2050 projections in the world average. In other words, rural population in OIC is decreasing faster than the world average. This is an issue that needs attention for agricultural sustainability.

Since the decrease in rural population affects the level of agricultural production, mechanisation needs to be increased. Looking at the share of those engaged in agriculture, including fisheries and forestry, in total employment, the world average is 26.58 per cent, while the OIC average is 27.28 per cent according to 2023 data. It may be misleading to interpret these data as compatible with the world average. According to FAOSTAT (2023) data, while the average agricultural employment is in the range of (1-2) per cent in Bahrain, Kuwait, Qatar, Saudi Arabia, the United Arab Emirates, whose economies are dominated by energy resources, it is over 70 per cent in Chad, Burkina Faso, Mali, Mozambique, Niger; In Albania, Azerbaijan, Bangladesh, Cameroon, Comoros, Cote d'Ivoire, The Gambia, Guinea, Guinea Bissau, Indonesia, Mauritania, Morocco, Nigeria, Pakistan, Sierra Leone, Pakistan, Tajikistan, Togo, the share of agricultural employment in total employment is 30% or more. Therefore, agricultural production is a source of income and employment for a significant part of the population in OIC member countries.

When we look at the world trade and GDP data of the OIC member countries, it is seen that they do not follow a parallel course with population and agricultural employment. The total GDP of the OIC member countries, which meet roughly 10 per cent of the world trade as an indicator of agriculture-dominated low value-added product exports, corresponds to 9.08 per cent of the world GDP in 2023. The OIC average GDP per capita is \$7,704.26 while the world average is \$11,567.24. In GDP per capita, Qatar has the highest value with \$63,428.36 and Afghanistan has the lowest value with \$372.62.

The ratio of exports to imports in intra-OIC agricultural product trade indicators is 52.34 per cent on average. There are countries such as Burkina Faso, Ivory Coast, Indonesia, Malaysia, Uganda, which have a high level of export surplus in agricultural product trade, as well as countries that are dependent on imports such as Algeria, Maldives, Libya, Iraq, Qatar, Yemen. The world average in the ratio of agricultural exports to imports is 96 per cent. For OIC countries, the ratio of exports to imports is 87 per cent. During the 2008 and 2011 food crises, there were significant declines and recoveries. As of 2015, the upward trend continued, and there was a decline in 2020 due to the 2019 pandemic.



Therefore, sustainable agriculture is becoming increasingly important. Because of this, issues such as global warming, climate change, erosion, and food safety are monitored closely and are related directly to the agricultural sector. Availability of natural resources, to what extent the production is influenced by natural events and how these developments will reflect on our future are evaluated with concern. And it is searched for solutions to possible problems.

Eradication of poverty and zero hunger are among the Sustainable Development goals. Other goals are closely related to agricultural production and agricultural product prices. In the food price index, the world average is 3.90, the EU average is 2.40 and the OIC average is 8.36. This increase has become more severe after the Covid-19 outbreak. The change in these values over the last 3 years is presented in the table. In 2019, the OIC average in the food price index was 6.07%, while it was 21.68% in 2020 and 22.29% in 2021. In the same periods, the EU average was 1.03% and 4.46%, while the world average was 5.75% and 11.02%, respectively. Moreover, these increases are not equally distributed among the OIC member countries.

It is important to reduce poverty in all aspects. It is based on the poverty line of US\$ 1.90 per day, which was established according to the purchasing power parity of the UN in 2011. According to this criterion, the poverty rate in the OIC geography is 13 per cent. 83 million people in 45 countries face hunger. Malnutrition, which tends to increase especially as a result of the 2008 food price increase, is 5 per cent in developing countries, 13 per cent in Asia and 20 per cent in Africa. In the OIC region, the number of undernourished people is 167 million, constituting 23 per cent of the world's undernourished people. Malnutrition is attributed to food price increases. While the world average of food price increases is 3.90, this rate is 8.36 in the OIC geography.

However, it is seen that those who are undernourished in the OIC are those who are physically unable to access food due to food price increases, not those who cannot access food due to purchasing power. It is concluded that the member countries with the highest rates of malnutrition in the OIC have the lowest food price increases, and therefore, nutritious and healthy food is not available and distributed evenly within the countries. Therefore, sustainable production of food emerges as the main policy priority. When the poverty target and access to sustainable food are considered together, sustainable food production comes to the fore. Especially for small-scale producers, welfare increase, ownership of means of production and arable land size are needed. The average land size is 4.75 decares in the OIC. This ratio is less than 2 decares in some countries where agricultural employment is high.

Similar observations apply to the utilisation of other major inputs. The producer prices of agricultural outputs are determined by the prices of agricultural inputs in the absence of public interventions such as input support payments, in-kind input subsidies, support purchases, tax exemptions and exemptions, floor price fixing; i.e. under market conditions. Basic agricultural inputs are land, labour, seed, water, fertiliser, pesticide and machinery. In the current production process; as a result of the 'Agreement on Agriculture' framework, especially seed-fertiliser-pesticides are used as industrial outputs with chemical or gene code modifications.

These inputs, which are mostly imported, can have a negative impact on both the quantity and price of agricultural production and negatively affect consumer and producer welfare, especially during periods of currency price increases and import restrictions. For example, a brief look at the fertiliser market shows that the world chemical fertiliser sector has grown by 12.75% in the last 10 years. Chemical fertiliser production increased by 50.11% and consumption by 47.38%. The world average of pesticide use is 30 per cent, while the OIC average is 27.56 per cent. Pesticide use is one of the most important external inputs, along with chemical fertilisers and energy.

Therefore, changes in the foreign purchase prices of these products directly affect production costs exogenously. Although chemical fertiliser use is below the world average, it is increasing due to the expansion in usable agricultural land. While the world average fertiliser use is 141.9 kg per hectare, the OIC average is 85.9 kg. Input use, which directly affects productivity, is mainly subsidised by the public sector. On the other hand, chemical fertiliser is an alternative to animal manure and is also promoted due to environmental sensitivities. However, considering the traditional agricultural production in which animal production and crop production should coexist, attention should be paid to the intensive use of animal manure, which is a by-product of animal production, especially in low-income countries.

In terms of agricultural employment, the OIC average has decreased from 33.25 per cent to 27.66 per cent and is close to the world average of 26.6 per cent. However, there are member countries where agricultural employment is above 70 per cent, as well as countries where it is around 1 per cent. High mechanisation and low manpower in agricultural production are known as productivity indicators. Productivity increases are reflected in high-value-added products. The increase in agricultural value added in the country's GDP brings both the improvement of agricultural producers in terms of income through domestic terms of trade and an increase in the income of countries through exports through foreign terms of trade. While agricultural value added in some OIC member countries develops in this way, in most of them, agricultural production increases as a result of an increased labour force due to population growth.

Although agricultural employment is quite high in this group of countries, the share of agricultural value added tends to decrease. Falling incomes due to the process because the agricultural labour force to move to cities and disconnect from production. However, the population settling in cities is employed in the service sector, which accommodates (uneducated and unskilled/semi-skilled) labour, instead of industry, which is seen as the dual of agriculture. If the labour disengaged from agriculture cannot be replaced by productivity increases, production declines are experienced and food insecurity is triggered. In OIC member countries, agricultural production declined from 11.3 per cent of GDP to 9.8 per cent. This decline, despite the ever-increasing population, significantly limits access to food. The change in the level of agricultural output per worker is an important data in terms of reflecting food stress. In 23 OIC member countries, agricultural output per worker is above the OIC average, while it is below it in 24 countries.

In parallel with the changing food consumption patterns, OIC countries have started to meet the demand for animal products by switching to large-scale industrial livestock production. In this direction, they increased their animal production by 13 per cent as of 2000 and met 8 per cent of the world production. In the period under review, meat production increased by 85 per cent, milk production by 69 per cent and egg production by 98 per cent on average. Fisheries also grew at an average annual rate of 2.2 per cent, accounting for 19.4 per cent of world inland fisheries production and 19.6 per cent of marine fisheries. Due to the increasing demand for seafood on a global scale, FAO is shifting the agricultural production structures of countries with arid climates and landlocked countries towards freshwater and seafood products.

The OIC region has an extremely rich historical heritage and has hosted great Islamic civilizations. Our region was once known for innovations and scientific improvements, and agriculture was no exception. Substantial contributions have been made to agriculture by developing numerous farming and irrigation techniques and cultivating various new crops. Muslims restructured the previous techniques and infrastructure, further perfecting them with new innovations.

Despite all this potential, agriculture in many OIC Member Countries is still facing serious problems such as low productivity, climate change, increasing energy costs and input prices, disruptions in agricultural supply chains, huge post-harvest losses, lack of market access, and inadequate storage and processing facilities. As a result, the food security and economic development of populations in such countries are affected. Statistics show that on average, the share of agriculture in the total GDP of the OIC Member States amounted to only 10.9% in 2021, gradually declining from 12.2% in 2000.

The relative decline in agricultural value added to the GDP in OIC Member Countries can be associated with structural transformation, agricultural market instability, environmental stresses, degradation of land and depletion of water resources, plus lack of an effective mechanism of joint intra-OIC strategy for improved agricultural productivity in Member States. The COVID-19 pandemic also contributed to the decline of agriculture's share of the total GDP of OIC Member States in 2021. Ongoing global economic challenges may exacerbate these disruptions. (COMCEC, 2024, SESRIC 2023)

On the other hand, unconscious and improper use of agricultural inputs such as fertilizers and pesticides comes at a huge cost to arable land and the environment in general. Moreover, external factors such as regional conflicts that disrupt supply chains, increases in energy prices, pandemics, and climate change have also led to an increase in the cost of agricultural inputs. Rising costs have significant social and economic impacts on both producers and consumers. Unfortunately, farmers face severe problems using inputs in such a vital sector due to rising prices of agricultural inputs in many OIC Member Countries.

The primary inputs in food production are the effective and productive use of agricultural land, seeds, the use of machinery fertilizers and pesticides, water resource management and irrigation systems, and access to finance. In this regard, farmers are under-utilizing inputs due to rising prices of agricultural inputs in many OIC member countries. In addition to low productivity, low prices, difficulties in accessing markets, input problems, irrigation water supply, pests and diseases, weeds, etc., make it difficult for farmers in these areas to cope with various problems.

The Member Countries have a relatively small average land area and an agricultural structure dominated by small-scale, labour-intensive production. The percentage of cultivated land area in the total agricultural area in OIC countries was 28.2%, below the global average of 32.9%. Water is a scarce resource in the arid and semi-arid regions where many OIC countries are located.

The average use of fertilizer per hectare of arable land in OIC member countries climbed from 69.6 kilograms in 2010 to 85.6 kilograms in 2020. This level of fertilizer use is still significantly low compared to the average values in 2020 for non-OIC developing countries (200.1 kilograms), the world (163.8 kilograms), and developed countries (140.4 kilograms).

Increases in agricultural production costs, especially rising input prices, cause agriculture to decline. Insufficient domestic production makes imports of agricultural products from less developed countries difficult, and the problem of malnutrition increases. As a result, the lack of modern use of agricultural inputs in OIC countries not only reduces agricultural productivity but also prevents long-term agricultural development. To cope with these problems, OIC member countries need to enhance productivity through the using of modern machinery, fertilizers, and efficient irrigation techniques and by adapting to new technologies and farming practices.

Despite considerable progress, agricultural productivity in the OIC member countries remained insufficient to feed the growing population. In addition, OIC member countries' total food and agriculture trade deficit stood at US\$96 billion in 2021. This figure indicates that there exists a wide gap between the supply and demand for food in OIC member countries, thereby having a negative impact on food security of the peoples. Moreover, 23 OIC Member Countries are still among the world's 44 low income food-deficit countries, requiring external assistance in food supply. In addition, according to FAO data, 203 million people, accounting for 11.2% of the total population in OIC Member Countries, were undernourished in 2020.

Furthermore, according to a joint FAO-WFP Hunger Hotspots: June to November 2023 Outlook, which was released in May 2023, 9 OIC Member Countries are listed among the countries identified as hunger hotspots, requiring urgent and scaled-up assistance to address food insecurity. These countries are: Afghanistan, Burkina Faso, Chad, Lebanon, Mali, Nigeria, Somalia, Sudan, and Mozambique. More than 98 million people in these 9 OIC member countries are at risk of hunger, unless they receive immediate life-saving assistance. The deteriorating situation of these people are mostly driven by conflicts, as well as the impacts of the COVID-19 pandemic and climate change effects. These include population displacements, food price spikes, rising inflation, decreased purchasing power, and the impact of extreme weather events.

Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food, which meets their dietary needs and food preferences for an active and healthy life. Food insecurity exists when people do not have adequate physical, social or economic access to food as defined above (FAO, WFP, 2010). Food safety is a scientific discipline describing handling, preparation, and storage of food in ways that prevent foodborne illness.



## **Challenges Facing the Agriculture Sector in OIC Member Countries**

The major constraints and challenges of agricultural sector in the majority of the OIC Member Countries can be summarised as follows:

- Low productivity due to the lack of investments, modern technologies, know-how, skilled labour force, research and innovation and infrastructure.
- Inefficient use of water resources and agricultural machinery and technologies that result in depletion of water resources and degradation of land.
- Low levels of agricultural investments due to limited access to domestic and foreign financial resources and high risks stemming from fluctuations in world agricultural commodity prices.
- Poor market performance due to the inefficient market institutions, lack of integrated value chain approach, and inadequate infrastructure, storage and packaging facilities.
- Deregulation policies and inadequate agricultural planning and strategy making which result in reduced investments and increased exposure to the adverse effects of price volatility and speculation.
- Lack of reliable and up-to-date data for devising sound policies and making appropriate local, national and regional decisions.
- Lack of effective governance, political and economic stability and weak institutional capacity.

## **OIC Level Efforts and Initiatives of the COMCEC**

Food security has become the most important agenda item due to the 2007-08 Food Crisis and 2009-10 Economic Crisis. Ensuring food security is a concern for most countries and it is of special importance for OIC countries. Most OIC countries have difficulties in achieving food security due to their geographic, topographic, production infrastructure and population characteristics. It requires the development of common solutions.

Agriculture is one of the most important cooperation areas of the COMCEC. In this respect, with a view to strengthening the cooperation among the OIC Member Countries and developing and recommending programs in the area of agricultural development and food security, the 25th Session of the Standing Committee for Economic and Commercial Cooperation of the OIC (COMCEC), held in November 2009, approved a Road Map and formed the COMCEC Task Force on Agriculture, Rural Development and Food Security, comprising the OIC General Secretariat, COMCEC Coordination Office, Islamic Development Bank (IsDB), and FAO.

The 5th OIC Ministerial Conference on “Promoting Food Security and Agricultural Development” in OIC Member States held in Khartoum, Republic of Sudan, in October 2010, reiterated the COMCEC Resolution on food security as well as the mandate of the COMCEC Task Force. Moreover, the 6th OIC Ministerial Conference on “Food Security and Agricultural Development” held on 3-6 October 2011, in Istanbul, Türkiye, commended the efforts of the COMCEC Task Force in producing the Framework for Cooperation in Agriculture, Rural Development and Food Security.

In line with the above-mentioned mandate, the present draft of the Framework for Cooperation has been prepared by the COMCEC Task Force to be circulated to the Member Countries for their consideration. The Framework will be submitted to the 28th Session of the COMCEC to be held on 8-11 October 2012, in Istanbul, for its adoption. The COMCEC Strategy, adopted by the 4th Extraordinary Islamic Summit held on 14-15 August 2012 in Makkah, has also determined agriculture as one of the six cooperation areas of the COMCEC.

Given its importance, agriculture was identified as a cooperation area in the COMCEC Strategy and Agriculture Working Group (AWG) was established with the strategic objective of “Increasing the productivity of agricultural sector and sustaining food security in the COMCEC region”. In order to reach this objective, the COMCEC Strategy has determined (i) increasing productivity, (ii) regulatory framework and institutional capacity, (iii) reliable and up-to-date data, and (iv) market performance and access as output areas under the agriculture cooperation area. The AWG elaborated on the above-mentioned output areas in its previous gatherings and discussed irrigation systems, on-farm and post-harvest food losses, food waste, agricultural market institutions and market information systems, agricultural inputs, livestock production and fishery, resilience of and ensuring food security and good governance for ensuring food security and nutrition.

COMCEC Project Funding (CPF) is the other important instrument of the Strategy. Projects financed under the CPF need to serve cooperation among member countries and must be designed in accordance with the objectives and the expected outcomes defined by the Strategy in the agriculture section. Projects also play important roles in realization of the policy recommendations formulated by the member countries during the AWG meetings. In this regard, 27 projects have been selected for implementation by OIC Member Countries and OIC Institutions so far.

The OIC Institutions have also intensified their efforts to better serve the OIC Member Countries, further develop intra-OIC cooperation in the agricultural sector, and comprehensively address food security. Within this framework, in 2022, the Islamic Development Bank (IsDB) Group endorsed a US\$ 10.54 billion comprehensive Food Security Response Program (FSRP) package to support OIC member countries in addressing food insecurity and strengthening their resilience to food security shocks in the future. The key objectives of the package were to procure and supply 780,000 tons of wheat and barley and 700,000 tons of building and food storage capacity that can preserve the crops for more than 12 months. This will benefit more than 11 million people and boost agricultural production in OIC Member Countries. Agriculture and Rural Development is the fourth largest sector in terms of IsDB financing, with USD 8.87 billion approved from inception until 2022.

In addition to the Bank's investment, the IDBG also provides financing for agriculture through its other entities including the International Islamic Trade Finance Corporation (ITFC), the Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC), the Islamic Solidarity Fund for Development (ISFD) and the Islamic Corporation for the Development of the Private Sector (ICD). Furthermore, IsDB has recently given permission to proceed with the Tadamon Accelerator for Food Security Program. This initiative is geared towards helping Member States address their most vulnerable communities' pressing food security needs in collaboration with civil society organizations.

The Statistical, Economic and Social Research and Training Centre for the Islamic Countries (SESRIC) has also continued to organize workshops, training and capacity-building programmes to increase the productivity of the agriculture sector and sustain food security for the benefit of OIC Member Countries. In addition to the training and capacity-building activities, SESRIC regularly published reports on "Agriculture and Food Security in OIC Member Countries" as a technical background document supporting the evidence-based policy dialogue and discussion among the OIC Member States. The reports offer a comprehensive analysis of the state of agriculture and food security in OIC countries by looking into the latest comparable data and trends on key indicators. They explore major issues such as agriculture production and productivity, trade in agriculture commodities, agricultural population and land use in agriculture, and impacts of food price volatility. The reports also include a set of policy recommendations and proposals for enhancing OIC cooperation in this domain.

The Secretariat of the Islamic Organization for Food Security (IOFS) conducted a series of capacity-building activities and projects to enhance the productivity and resilience of agri-food systems focusing on strategic commodities for the Organization of Islamic Cooperation (OIC), i.e., wheat, rice and cassava, animal development and policy frameworks. These events provided OIC Member States with a good platform to discuss policy convergence and strengthen coordination at the national and regional levels for exchange and accumulation of the OIC countries' experiences in food security governance, developing coherent policy frameworks and resilient inter-sectoral government systems for their effective implementation for sustainable food systems. IOFS is assisting Member States to access the best technologies, practices and expertise on various aspects of sustainable agriculture and food security.

As the specialised institution of the OIC for food security and agriculture, IOFS, among others, mainly implements regional projects focusing on the development of value chains. Afghanistan Food Security Program (AFSP) is a joint initiative of IOFS and the Turkish Cooperation and Coordination Agency (TIKA) to support farmers in the west of Afghanistan. The Program is crucial for bolstering agricultural productivity and ensuring food security in the Zindajan Sub-Province of Herat, Afghanistan, an area severely affected by last year's earthquake. Currently, IOFS is implementing an Africa Food Security Initiative (AFSI) to address the pressing challenges the continent faces regarding food security and agricultural development. In this context, the AFSI is to be implemented through different programs to ensure that food systems in sub-Saharan Africa would receive proper attention so that people across the region could have access to food.

The Islamic Center for Development of Trade (ICDT), a subsidiary body of the OIC, has continued to organize specialized fairs in specific sectors with high potential for increasing trade between OIC countries and various activities aimed at attracting investments and developing exports in OIC Member States. ICDT organizes trade fairs and forums to promote agricultural trade and agricultural industry.

The Islamic Chamber of Commerce and Development (ICCD), is another OIC Institution directly serving the joint efforts addressing agriculture. In this regard, ICCD organizes a series of events aimed at helping Halal producers, traders, and service providers to connect with different customers and stakeholders. In 2025, ICCD, in collaboration with the Republic of Azerbaijan, will organize the Sustainable Agriculture Investment Forum in Baku, Azerbaijan. It will serve as a platform to promote investment opportunities in sustainable agriculture in Azerbaijan and OIC member countries, while also facilitating trade relations within the OIC and with the global community.

The Standards and Metrology Institute for Islamic Countries (SMIIC), an affiliated organ of the OIC, continues to develop OIC/SMIIC standards for the use of OIC Member Countries. SMIIC also places special emphasis on standards related to agriculture. Besides, it continues to promote and implement halal standards in the agricultural sector that meet the needs of consumers and organizations in OIC member countries and around the world. These new standards will help ensure the highest level of quality and compliance with Islamic rules in the halal industry.

## Future Prospects and Recommendations

A forward-looking policy to ensure food security and develop agricultural production and livestock in OIC member countries should prioritize three key areas: promoting sustainable agricultural practices, enhancing research and innovation, and strengthening regional cooperation.

Sustainable agricultural practices are crucial for balancing productivity with environmental conservation. By encouraging the adoption of climate-smart techniques, such as conservation agriculture, precision farming, and water-efficient irrigation systems, OIC member countries can increase yields while protecting vital ecosystems. In this regard, sustainable practices, such as crop diversification, agroforestry, and integrated pest management, help maintain soil health and reduce the environmental footprint of agriculture. For livestock production, modern feed strategies, improved animal health management, and sustainable grazing methods can boost productivity and resource efficiency, ensuring food security in the face of growing populations and climate-related challenges.

Sustainable agriculture, through climate-smart farming techniques, efficient water use, and improved land management, can increase productivity while preserving natural resources. Encouraging the use of drought-resistant crops, adopting integrated pest management, and promoting agroforestry can help mitigate the effects of climate change and reduce environmental degradation. Additionally, supporting livestock production through advanced feed strategies and better breeding programs can enhance resilience in the face of resource constraints. Investing in sustainable practices ensures that food systems remain productive and capable of meeting growing population demands without depleting vital ecosystems.



Equally important is the need for OIC Member Countries to enhance agricultural research, innovation, and technology adoption. Establishing research centres that focus on developing region-specific solutions for crop and livestock production will drive long-term productivity gains. Additionally, investment in precision agriculture technologies, digital platforms for market access, and innovations such as genetically improved seeds or alternative protein sources can significantly boost output while lowering costs.

Furthermore, regional collaboration within the OIC framework can further strengthen food security by facilitating knowledge sharing, joint research initiatives, and harmonized agricultural policies. This cooperative approach will create synergies that maximize resource use, reduce inefficiencies, and enable better responses to global challenges such as climate change, food price volatility, and market disruptions. By focusing on innovation, sustainability, and collaboration, OIC member countries can secure a robust and resilient agricultural future.

The role of COMCEC and OIC member countries is crucial in ensuring better agricultural policy implementation in the field. COMCEC also acts as a central coordinating body that facilitates the sharing of knowledge, resources, and best practices among its member countries. By organizing regular forums, workshops, and policy development platforms, COMCEC can help identify common challenges in agriculture and provide technical assistance for the development of region-specific strategies. It can also support capacity-building initiatives that empower governments to implement and monitor agricultural policies effectively. Furthermore, COMCEC as a platform for fostering cooperation between OIC member countries in agricultural research, innovation, and food security projects could support them to leverage collective expertise to address pressing issues such as climate change, water scarcity, and soil degradation.

OIC Member Countries have also a critical role in aligning their national agricultural policies with broader OIC frameworks to achieve common food security and development goals. Countries should focus on strengthening their institutional capacities for policy design, implementation, and evaluation. This includes improving data collection and analysis to ensure evidence-based policy decisions, investing in modern infrastructure, and developing financial tools that support smallholder farmers and livestock producers.

Collaboration with COMCEC can enable countries to benefit from technical assistance, funding opportunities, and innovative approaches to agricultural development. In this vein, by participating in regional projects initiated by COMCEC, countries can create synergies through shared initiatives in research, technology transfer, and trade facilitation, fostering a more integrated and resilient agricultural sector across OIC member countries. This partnership between COMCEC and individual countries will ensure that agricultural policies are not only designed effectively but are also implemented in a coordinated and sustainable manner.

To ensure better sustainable agricultural policy implementation in OIC member countries and strengthen food security, both COMCEC and individual countries must play active, coordinated roles. Within this framework, some key actions that COMCEC and OIC countries can take:

COMCEC can lead the development of a unified framework for sustainable agriculture in OIC countries, with land use, water conservation, and natural resource management guidelines. This framework can help align national policies with broader OIC goals, ensuring that all member states work toward long-term sustainability and food security objectives. COMCEC can offer technical assistance to member countries for capacity building in areas such as policy design, monitoring, and evaluation. It can also mobilize financial resources and facilitate access to international funding mechanisms that support sustainable agriculture projects, such as climate adaptation funds, green agriculture initiatives, and investment in rural infrastructure.

COMCEC can also promote collaboration in agricultural research and innovation across member countries by creating regional centres of excellence focused on sustainable farming technologies. This would include research on drought-resistant crops, alternative feed sources, and resource-efficient farming techniques that are suitable for the unique challenges faced by OIC member countries. By coordinating research efforts, COMCEC can help accelerate the adoption of innovative solutions across the region.

OIC member countries should ensure their national agricultural policies are grounded in sustainability principles, addressing issues such as soil health, water conservation, biodiversity, and adaptation to climate change. They should also focus on creating enabling environments for sustainable farming through supportive legal frameworks, incentives for farmers, and the promotion of sustainable practices like agroforestry and conservation agriculture.

Countries must invest in infrastructure that supports sustainable agriculture, such as efficient irrigation systems, renewable energy-powered farming equipment, and cold storage facilities that reduce food waste. The adoption of technologies like precision agriculture, which optimizes resource use, should be encouraged to improve productivity while minimizing environmental impact. Governments should focus on building the capacity of smallholder farmers through training programs that introduce sustainable farming techniques, efficient resource management, and agro-ecological methods. Providing access to financial services, such as low-interest loans and insurance schemes, is also essential to enable smallholders to invest in sustainable practices and improve their resilience to climate shocks.

At the end of the day, OIC member countries should actively engage in regional cooperation to tackle shared challenges such as desertification, water scarcity, and food insecurity. OIC Member Countries can participate in joint projects, share technologies, and create cross-border agricultural trade policies that strengthen food security and sustainable agriculture efforts by working together. Both COMCEC and member countries should collaborate on monitoring the implementation of sustainable agricultural policies, assessing their impact on food security, and identifying areas for improvement. Establishing regional benchmarks and data sharing systems can help to track progress and ensure accountability.

COMCEC and member countries can work together to develop sustainable value chains by promoting organic farming, fair trade practices, and eco-labelling to ensure that agricultural products are produced sustainably and meet the growing demand for environmentally friendly goods. This can open new markets and enhance income for farmers while ensuring the long-term viability of agricultural systems.

These efforts will enhance agricultural productivity, protect the environment, and ensure long-term food security in OIC member countries in the future.

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## Food Waste and Loss in the OIC Countries: Challenges, Impacts and Strategies

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### Abstract

In the agricultural production and food sector, there is a significant amount of loss and waste in the pre-production, production process and post-production, processing, transport, distribution and consumption process, i.e. at the producer and consumer levels. The negative economic and environmental effects of this loss has attracted attention in recent years. As a global problem, it is necessary to measure the losses affecting society, producers, markets and markets to minimize their effects and to develop strategy plans in this process especially to plan conscious production and consumption. OIC Member Countries (MCs) have different levels of development and the strategies applied should be developed accordingly. While the problem of food loss is prominent in underdeveloped and developing areas, in rich countries with high-income levels, the issue must be planned with the wastage process. For the success of the process in combating loss and wastage for whatever reason, will require effective, strategic and sustainable approaches in addition to addressing education, R&D and infrastructure problems.

Many studies have been conducted on food loss and wastage in OIC member countries and it has been stated that the problem stems from the food supply chain, cultural practices and social norms, lack of education and awareness, lack of political measures and institutional arrangements and inadequate infrastructure. Urbanization and changing consumption patterns in many OIC countries have also led to higher levels of food waste in cities.

Food loss and waste in OIC MCs is a complex issue that demands a comprehensive strategy. Solutions should focus on enhancing infrastructure, raising public awareness, and reinforcing policy frameworks. Islamic teachings, which advocate for moderation and discourage waste, offer a strong basis for encouraging sustainable food practices, although these principles must be more effectively incorporated into daily habits and behaviors.

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## 1. Introduction

As the world's population continues to grow, it is important to use the resources effectively and that the needs are met. The most important global challenge is hunger on the one hand and food loss and waste on the other, and the root cause of both problems is resource use planning. Food loss and waste often translate into high economic losses for farmers and other stakeholders in the food value chain, as well as for consumers. This also translates into economic loss for all countries. Food loss and waste can happen at every stage of the supply chain, including harvesting, transportation, storage, packaging, processing, wholesale and retail trade, as well as consumption (Table 1).

In September 2015, the United Nations (UN) set an ambitious target as part of its Sustainable Development Goals (SDG) agenda to halve global food waste and significantly reduce food loss by 2030. This commitment highlights the growing international focus on minimizing edible loss and waste across the global food system, from farm to fork (Sheahan and Barrett 2017). Food waste and loss is a critical global issue that threatens food security, sustainability, and economic stability. For the Organization of Islamic Cooperation (OIC) countries, which include 57 nations from diverse regions across Africa, Asia, the Middle East, and parts of Europe, addressing food waste and loss presents a unique set of challenges and opportunities (FAO, 2019). These nations collectively represent a significant portion of the world's agricultural production, yet they are also vulnerable to issues related to food security, inefficiency in food systems, and the adverse effects of climate change (World Bank, 2020). In this study, policy recommendations addressing the current situation, causes and prevention strategies of food loss and waste in OIC MCs will be examined.

Table 1. Examples of Food Loss and Waste at Various Stages of the Food Supply Chain

| Stage                                           | Examples of food waste/loss characteristics           |
|-------------------------------------------------|-------------------------------------------------------|
| <b>1.</b> Harvesting e.g. harvest handling      | e.g. edible crops left in the field, crop damage etc. |
| <b>2.</b> Threshing                             | e.g. loss due to poor technique                       |
| <b>3.</b> Drying, transport and distribution    | e.g. loss due to spoilage/bruising                    |
| <b>4.</b> Storage                               | e.g. loss due to pests, spillage, contamination       |
| <b>5.</b> Primary processing e.g. grading       | e.g. process loss and contamination                   |
| <b>6.</b> Secondary processing e.g. cooking     | e.g. process loss and contamination                   |
| <b>7.</b> Product checking e.g. quality control | e.g. product discarded                                |
| <b>8.</b> Packaging e.g. weighing, sealing      | e.g. inappropriate packaging product damage           |
| <b>9.</b> Marketing e.g. sales and distribution | e.g. damage during transport, poor handling           |
| <b>10.</b> Post-consumer e.g. cooking, eating   | e.g. poor storage and preparation, 'use by' dates     |
| <b>11.</b> End of life e.g. disposal            | e.g. landfill, animal feed                            |

**Source:** (COMCEC, 2016)

## 2. Identification and Causality of Food Loss and Waste

Food loss and waste refer to the reduction in both quantity and quality of food throughout the supply chain, from production to consumption (Gustavsson et al., 2011). In most studies, food losses and waste are categorized as losses during harvest, post-harvest, processing, distribution, and consumer waste. Food loss typically happens during the earlier stages of the supply chain, such as harvesting, transportation, and storage. On the other hand, food waste tends to occur at the retail and consumer levels, often as a result of mismanagement, consumer habits, or inefficient logistics (HLPE, 2014). In general terms, the emergence of the concept of waste in underdeveloped and developing countries is due to inefficient use of production caused by technical and technological problems, while in advanced countries, waste is consumption-centered.

In OIC MCs, food loss tends to be more prominent in agricultural production and post-harvest stages, while food waste becomes significant at the consumer and retail stages, especially in wealthier nations within the OIC (FAO, 2021). Food losses start at the field level in agricultural areas. In low-income countries, inadequate technology and inputs in production, as well as inefficiencies in resource utilization, increase losses and can lead to higher production costs. In particular, the obstacles that may occur in front of production (unfavorable climatic conditions, backwardness in agricultural technique, disruptions in the production process, product cost-price relations, etc.) may produce less than expected products in agricultural production (Gunes, 2019). It is possible to list the losses experienced more specifically in this process as follows:

- In case of low market prices of agricultural products or high labor costs, agricultural enterprises cannot harvest the produced product for economic reasons.
- Due to the lack of the use of modern techniques and equipment in agriculture and insufficient efforts to collect the remains of the harvest, the uncollected products are left to rot in the field.
- Losses due to the shape and color of agricultural products not having the expected characteristics and insufficient demand for these products in the market
- Agricultural producers have difficulties in transitioning to modern agricultural production for various reasons and resources cannot be used effectively.

Agricultural enterprises do not pay enough attention to information and knowledge in the production process (e.g. not following meteorological forecasts, not conducting soil analysis, not complying with pesticide application and harvesting times, not making production planning) and not utilizing surplus products effectively. The main causes of loss and wastage in agricultural processing plants and food enterprises:

- Failure to make correct and accurate production planning in the product processing process,
- Inadequate utilization of enterprise capacities due to various reasons,
- Inadequate level of education of the personnel in food enterprises,
- Production in conditions that do not meet the minimum technical and hygienic conditions,
- Problems in measuring waste and losses due to the existence of unregistered enterprises,
- Insufficient compliance with the rules of good production practice,
- Lack of storage conditions suitable for the characteristics of the food,
- Insufficient technical features of the production area and warehouses.

The areas where food products are offered for sale (conveners, retailers, etc.) cover the process between production and distribution. Losses in this process are seen in marketing services, transportation, handover, storage, distribution issues are frequently seen. The main problem at the distribution stage is the logistical problems, especially the lack of sufficient technical characteristics of the distribution vehicles to ensure the correct preservation of the food. It is very important to transport foods in conditions suitable for their characteristics (temperature, humidity, stacking rules, etc.) in order to prevent losses at this stage (Gunes, 2019).

Food loss at consumption points is particularly high due to consumer waste. In this process;

- Inadequate stock management, poor hygiene conditions, inadequate staff training, lack of alternative portion sizes, open buffet applications,
- Out-of-order treats due to cultural habits of the consumer
- In addition, foods that are not consumed because they do not meet high customer standards and expectations, even though they are safe to eat are also identified as a cause of loss at this stage.

At the sales stage, the reasons for food loss and waste are:

- Failure to store food in conditions suitable for its characteristics,
- Damage to products in the aisle due to consumers buying products selectively,
- Failure to make proper stock management, especially fruit and vegetable shape and color are not preferred by the consumer because they do not have the expected characteristics,
- And finally, the inability to sell products with close to the recommended consumption date.

### 3. Magnitude of Food Waste and Loss in OIC Countries

Total food waste and loss in OIC countries is estimated to be a significant contributor to the global food loss and waste problem, which amounts to around 1.3 billion tons annually worldwide (FAO, 2019). However, the extent of the issue varies widely across the OIC MCs. In low-income OIC MCs, such as those in sub-Saharan Africa, food loss is driven by poor infrastructure and inefficient storage practices, leading to spoilage and deterioration (Kader, 2005). Indonesia, Bangladesh, and Pakistan struggle with a mix of food loss due to inefficient agricultural practices and waste from urban food systems (World Bank, 2019). Chad, Niger, and Mali face high post-harvest losses due to lack of proper storage facilities and transport inefficiencies (FAO, 2020). A significant portion of cereal crops, fruits, and vegetables are lost before they reach markets. Meanwhile, in more affluent OIC countries, particularly in the Middle East, food waste is primarily driven by consumer habits, with large quantities of food discarded after consumption (Bahn & Abebe, 2017).

Countries such as Saudi Arabia, the UAE, and Qatar have high rates of food waste, particularly in urban settings and during cultural events like Ramadan. In Saudi Arabia, for instance, it is estimated that **up to 40%** of food is wasted during Ramadan (Al-Mefleh & Alkahtani, 2020). Ramadan is a time of increased charity and hospitality in many OIC countries, leading to the preparation of larger quantities of food than usual. Families and communities often prepare elaborate meals to share with guests, friends, and neighbors, which, although driven by good intentions, can result in significant food waste if the food prepared exceeds what can be consumed (Al-Khalidi, 2019). Similarly, Hassan et al. (2021) point out that cultural norms and social expectations, such as offering abundant meals for guests, further exacerbate this issue.



### 3.1. Key Causes of Food Loss and Waste in OIC Member Countries

The main causes of food loss and wastage in OIC MCs can be expressed under the following main headings:

**3.1.1. Inadequate Infrastructure:** Problems arising from the structural process of agricultural production in underdeveloped countries emerge during the production period of the products. In this process, inefficient utilization of production resources is noteworthy. Insufficient capital and technological possibilities and labor-based production activities constitute the main reason for this situation. Besides, many OIC countries, particularly those with less developed economies, suffer from inadequate storage facilities, lack of cold chains, and poor transportation networks. These issues lead to significant post-harvest losses, especially for perishable products like fruits, vegetables and dairy products (Parfitt et al., 2010).

**3.1.2. Lack of Technology and Modern Farming Practices:** A significant portion of agricultural production in OIC countries relies on traditional farming methods. Limited access to technology, such as modern harvesting machinery, improved storage systems, and effective pest control methods, exacerbates food loss during the production and post-harvest phases (Rolle, 2006). Due to insufficient capital and inability to meet financial requirements, the production potential cannot be sufficiently utilized which has a negative impact on resource optimization.

**3.1.3. Consumer Behavior and Cultural Practices and Social Norms:** In wealthier OIC countries, such as the Gulf States, food waste is often driven by consumer behavior, including the tendency to prepare excessive amounts of food during religious and cultural events. In countries like Saudi Arabia and the UAE, lavish buffets and large portion sizes in restaurants contribute to high levels of food waste (FAO, 2018). It is also known that increased consumption is observed especially on religious and national days (Figure 1).

The main causes of food waste in the food service sector include over-preparation of meals, often due to uncertainty about customer demand, food exceeding its expiration date, customers ordering more than they can consume, and hesitation to take home leftovers. Many in the industry pointed to customer behavior as a key contributor to food waste, particularly citing children as a factor. Open buffets were identified as the biggest source of waste by all respondents. The most commonly discarded items in this sector were fruits, vegetables, salads, meat, chicken, fish, and dairy products like milk.

The urbanization process and changing lifestyles in OIC MCs have been identified as another driver of food waste, especially in the food service sector, where awareness about portion sizes and consumption habits is limited (Said, 2022). Additionally, the lack of comprehensive data and research on FLW (Food loss and waste) in these countries hampers targeted educational efforts (Rahman, 2020). The literature also suggests that although Islamic teachings emphasize the importance of avoiding waste, these principles may not be fully integrated into everyday food consumption practices (Al-Hassan & Yilmaz, 2019).

**3.1.4. Lack of Awareness and Education:** Public awareness of the economic, environmental, and social impacts of food waste remains low in many OIC countries. This lack of knowledge hinders efforts to promote more sustainable consumption patterns (Lundqvist et al., 2008). According to the literature, the lack of awareness and education on food loss and waste (FLW) in OIC countries is often attributed to several factors. One significant issue is the limited presence of public campaigns or government-led initiatives aimed at educating the population about the environmental, economic, and social impacts of FLW (Al-Mustafa, 2021). Studies suggest that cultural and social norms play a critical role, with traditions of preparing large quantities of food during celebrations or for guests contributing to the waste problem (Hassan & Ibrahim, 2020).

Additionally, there is a persistent lack of educational programs focusing on food management practices, leading to inefficient food handling, storage, and consumption throughout the supply chain (Ahmad, 2019). Research also highlights that weak institutional support and lack of strong policy frameworks further exacerbate the issue (Khan & Ali, 2020). Many OIC MCs do not prioritize FLW reduction in their national strategies, and without appropriate regulations, efforts to raise public awareness remain fragmented. Furthermore, the literature points out that underdeveloped food supply chains, particularly in rural areas, contribute to food losses during transportation and storage, where education on more efficient practices could mitigate these losses (Yusuf et al., 2021).

In conclusion, the literature consistently points to the need for enhanced educational initiatives and stronger policy frameworks to address the issue of FLW in OIC MCs. Coordinated efforts across various sectors, including government, educational institutions, and religious organizations, are recommended to promote sustainable food practices and improve awareness (Khan & Ali, 2020; Said, 2022).

**3.1.5. Regulatory and Policy Gaps:** Few OIC MCs have implemented comprehensive policies or regulations to reduce food loss and waste. The absence of clear guidelines for food distribution, waste management, and incentives for minimizing waste contributes to the persistence of the issue (HLPE, 2014). In some exemplary countries, for example in Türkiye, the implementation of the national strategy document and action plan for the prevention, reduction and management of food losses and wastage in 2020 can be shown as an example (TOB 2020). In these plans and implementations, the success of the national strategy is evaluated depending on the cooperation of the public sector, industry, consumers, academia and non-governmental organizations. In the process of implementing the actions, the relations between the sub-units of the Ministry of Agriculture and Forestry and various related ministries are systematically evaluated in the strategy. This document can be considered as an exemplary strategy for all OIC MCs in its actions, implementation and organization of institutions.

**3.1.6. Other Causes:** In many OIC MCs, there is a lack of widespread public campaigns or government initiatives aimed at raising awareness about the environmental, economic, and social impacts of food loss and waste. In addition, some OIC MCs do not have strong institutional frameworks or policies addressing FLW. Besides, there is often a lack of comprehensive data on FLW in some OIC MCs, which makes it difficult to understand the scale of the problem and the best ways to address it.

## 4. Economic and Environmental Impacts

Food loss and waste in the OIC MCs have far-reaching consequences, both economically and environmentally. According to the literature, addressing these impacts is crucial for achieving food security, sustainability and economic stability across the world. Economically, the loss of food translates into a significant loss of income for farmers, traders, and businesses along the food supply chain (Gustavsson et al., 2011). In low-income countries, post-harvest losses undermine food security and rural development by reducing farmers' revenues and access to markets (FAO, 2020).

Food loss and waste in OIC countries have significant economic consequences at both the micro and macro levels. At the macro level, FLW translates to lost investment in agriculture, food production, and supply chains. Khan and Ali (2020) argue that the costs of food production- such as land, labor, water, and energy- are wasted when food is discarded before it reaches consumers. This loss is especially critical for OIC countries that rely heavily on agriculture as a major contributor to their economies, particularly in regions like sub-Saharan Africa and South-East Asia. The economic cost also manifest in the form of lost revenue for farmers, retailers, and food service providers, which are estimated to be in the billions of dollars annually (Rahman, 2020). In sub-Saharan Africa, **up to 30% of food produced** never reaches consumers due to logistical challenges and storage issues. Ahmad (2019) points out that inadequate access to modern technology and logistics results in significant spoilage, which further compounding economic hardship for those involved in the agricultural sector. This inefficiency not only affects the availability of food, but also reduces the income of smallholder farmers, most of whom are women (Kader, 2005). Food loss and waste leads to higher consumer prices. When a large portion of food is lost before reaching markets, supply diminishes while demand remains constant, driving up prices. This is particularly concerning in OIC MCs where a significant portion of household income is spent on food.

In the wealthier OIC MCs, food waste has a more direct economic impact on households and businesses. In the Gulf Cooperation Council (GCC) countries, the high cost of wasted food can be staggering. In the UAE alone, an estimated \$3.5 billion worth of food is wasted each year, placing a significant burden on resources (Al-Mefleh & Alkahtani, 2020). Food loss and waste contribute to greenhouse gas emissions, deforestation, water depletion, and land degradation (FAO, 2011). OIC MCs are heavily dependent on agriculture, and the inefficient use of resources such as water, fertilizers and energy worsens environmental stress. For instance, where water is scarce, food waste in the Gulf region puts additional pressure on already strained water resources.

Additionally, food waste contributes to landfill pressure, as organic waste produces methane, a potent greenhouse gas. In countries with rapidly growing urban populations, such as Indonesia, Türkiye, and Nigeria, food waste management is becoming an increasingly complex and pressing issue (FAO, 2020). The environmental footprint of food loss and waste also extends to biodiversity. The conversion of natural habitats into agricultural land to meet food demand further threatens wildlife and ecosystems. When food is lost or wasted, the environmental degradation caused by land-use change is effectively wasted. Al-Hassan and Yilmaz (2019) emphasize that reducing food waste could alleviate pressure on ecosystems by reducing the need for agricultural expansion and its associated environmental costs.

In conclusion, food loss and waste in the OIC MCs have negative economic and environmental impacts and leave serious and lasting challenges. It is necessary to address the problems holistically and ensure institutional sustainability of policies.

## 5. Opportunities for Reducing Food Waste and Loss in OIC Member Countries

While the challenges related to food loss and waste in OIC MCs are considerable, there are significant opportunities to address this issue. Governments, businesses, and civil society organizations can take several measures to reduce food waste and loss. In particular, it is possible that countries can reduce loss and waste by planning strategy plans and action implementations appropriate to their own structures.

**Investing in infrastructure** is crucial to reducing food loss in OIC MCs, particularly in rural areas. Enhancing storage facilities, transport networks, and cold chain systems can significantly reduce losses, alongside adopting modern agricultural practices such as precision farming. Additionally, **technology-driven solutions**, such as mobile platforms providing real-time data on weather and crop conditions, can help farmers make better decisions, reducing post-harvest losses. Innovations such as solar-powered cold storage and biodegradable packaging are also helping to extend the shelf life of perishable goods.

**Raising public awareness** is key to changing consumer behavior. Campaigns focusing on food waste's economic, environmental, and social costs can encourage more sustainable consumption habits, such as portion control, responsible food purchasing, and food donation. Governments can further support this by implementing policies that address food waste throughout the supply chain, such as food labeling regulations to extend shelf life and incentives for businesses to donate surplus food.

**Collaboration between governments, businesses, and civil society** is essential for developing solutions to food loss and waste. Public-private partnerships can drive technological innovations, improve market access, and support food security programs. Additionally, **religious and cultural values** can play a significant role, particularly in OIC countries where Islamic teachings emphasize the responsible use of resources. **By incorporating these principles into daily practices**, especially during religious festivals such as Ramadan, communities can contribute to more sustainable food consumption. Collaborative and joint efforts of scholars, NGOs, and policymakers can help to integrate these values into national strategies to address food waste.



## 6. Conclusion

Food loss and waste in the OIC MCs present significant economic and environmental challenges, resulting in lost income, higher consumer prices, and negative environmental effects such as resource depletion and increased greenhouse gas emissions.

Tackling these issues requires a comprehensive approach that combines improved infrastructure, better waste management systems, and enhanced public awareness. Policy reforms aimed at promoting sustainable agricultural practices and addressing inefficiencies across the food supply chain are essential. The following are the general recommendations put forward in the previous researches of the COMCEC:

Each OIC member country should identify the gaps in knowledge about on-farm food losses for major crops and food production. This will help them better understand and address specific causes, making our efforts more effective and impactful.

OIC Member Countries should evaluate their local food supply chains and identify opportunities for direct investment to strengthen the connection between farmers and buyers. By shortening the chain, food losses can be minimized while farmers' earnings can be increased and the risks of spoilage, spillage, and infestations can be reduced. This proactive approach will lead to enhanced efficiency and sustainability in our food supply systems.

The OIC member countries should address gaps in the technical and training capacity of on-farm food loss researchers and extension specialists. These key resource persons can provide written, oral, audio, visual, or online practical information on best practices in local languages for the benefit of extension workers and producers.

Last but not least, OIC MCs need to develop projects to tackle losses in durable and perishable value chains. These projects should outline key actions, technology packages, and budgets that can be utilized to reduce losses in the value chains.

In conclusion, the complexity of food loss and waste in OIC MCs demands a multi-faceted strategy. By addressing the underlying structural, technological, and behavioural factors, these nations can make considerable progress in improving food security, mitigating environmental damage, and fostering economic growth. The solutions involve not only investments in infrastructure and technology but also efforts to change consumer behaviour and reinforce regulatory frameworks. As the OIC MCs continue to modernize and urbanize, addressing food waste and loss will become increasingly urgent, marking it as a key priority for future development.

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## Tourism in OIC Member Countries: Reflection on the Past, Present, and Prospective Future

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### Abstract

Tourism in the Organization of Islamic Cooperation (OIC) member countries has been often acknowledged as a potential driver of economic growth and sustainable development. However, its development has been hindered by various challenges. This paper adapts a reflective approach to understand how the tourism industry in OIC member countries evolved from past to the present, drawing on key milestone and core challenges hindering the development of this sector. Overall, the study suggests that OIC member countries can leverage their unique cultural and natural assets to build a thriving tourism sector that contributes to economic prosperity, cultural exchange, and regional integration. By doing so, these countries can not only enhance their global tourism standing but also strengthen the bonds of solidarity and cooperation within the OIC community. The paper concludes with some actionable policy recommendations that can help policymakers in OIC member countries foster tourism development.

### Introduction

Since its establishment in 1969, the Organization of Islamic Cooperation (OIC) has aimed to promote solidarity among its members and safeguard the interests of the Muslim world in various fields, including economic, social, and cultural development. Among these sectors, tourism has emerged as a significant area of focus due to its potential to foster economic growth, enhance cultural exchange, and strengthen ties among member states (Qoir, 2023). Tourism, as an economic sector, has gained increasing importance within OIC member countries over the past few decades (Zamani-Farahani & Eid, 2016). With the global tourism industry expanding at an unprecedented rate, many OIC countries have recognized the value of tourism as a driver of economic diversification, especially for those with heavy reliance on oil and natural resources. The sector has also been identified as a crucial means to combat unemployment and generate foreign exchange earnings. Furthermore, tourism presents a unique opportunity for these countries to showcase their rich cultural heritage, Islamic history, and natural beauty, thus fostering greater understanding and appreciation of Islamic culture among international visitors. The evolution of tourism in OIC countries has been shaped by a variety of factors, including historical developments, political dynamics, and socio-economic changes. From the early forms of pilgrimage and trade-based travel to the contemporary challenges of globalization and digital transformation, the trajectory of tourism in these countries reflects a complex interplay of local and global influences. While some member countries, such as Türkiye, Malaysia, and the United Arab Emirates, have successfully positioned themselves as major global tourism destinations, others continue to grapple with challenges related to infrastructure, and limited international visibility.

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This paper aims to provide a comprehensive analysis of the tourism sector in OIC member countries, tracing its evolution from historical beginnings to the present day. By examining key developments, economic impacts, and socio-cultural dynamics, the paper seeks to identify the major challenges facing the sector and propose actionable recommendations for its future growth. Given the diversity of the OIC membership and the varying levels of tourism development across these countries, the analysis will also consider regional disparities and the potential for collaborative efforts to boost intra-OIC tourism.

## **1. Historical Evolution of Tourism in OIC Member Countries**

The tourism sector in OIC member countries has undergone significant transformations over the centuries, shaped by cultural, economic, and political developments. From the early days of pilgrimage and trade to the modern era of globalized mass tourism, the trajectory of tourism in these countries reflects a rich history of interaction with both internal and external influences. This section explores the historical evolution of tourism in OIC countries, focusing on three key periods: the early development of travel in the Islamic world, the growth of tourism in the 20th century, and the recent advancements in the 21st century.

### **1.1 Early Development (Pre-20th Century)**

The roots of tourism in OIC member countries can be traced back to the early Islamic period, where travel played a central role in religious and economic life (Zamani-Farahani & Eid, 2016; Alrawadieh & Alrawadieh, 2021). Pilgrimage, or Hajj, to the holy cities of Mecca and Medina in Saudi Arabia is one of the five pillars of Islam and has historically been a significant form of travel for Muslims worldwide. The annual pilgrimage attracted millions of travellers, fostering the development of hospitality services, trade routes, and cultural exchanges across the Islamic world (Aslan, 2015). This early form of religious tourism not only strengthened the spiritual bonds among Muslims but also contributed to the economic vitality of the regions involved. Beyond pilgrimage, the Islamic Golden Age (8th to 14th centuries) saw the rise of a scholarly and intellectual culture that encouraged travel for knowledge. Prominent Muslim scholars, such as Ibn Battuta, embarked on extensive journeys across the Islamic world and beyond, documenting their experiences and observations. These travels contributed to a form of intellectual tourism, where the exchange of ideas and cultural practices was facilitated by the movement of scholars, traders, and pilgrims. Trade routes, such as the Silk Road and the Trans-Saharan trade network, also played a crucial role in the early development of tourism in OIC regions. These routes connected the Islamic world with Europe, Africa, and Asia, bringing a steady flow of merchants, explorers, and adventurers. The bustling markets of cities like Baghdad, Cairo, and Istanbul became hubs of commerce and cultural exchange, attracting visitors from far and wide. These early forms of travel laid the foundation for the later development of more organized tourism activities (Gursoy & Altinay, 2021).

## 1.2 Tourism in the 20th Century

The 20th century marked a turning point in the development of tourism in OIC member countries. The independent countries across the Muslim world brought about significant changes in governance, infrastructure, and economic policies, which in turn influenced the growth of the tourism sector. Many OIC countries began to recognize the potential of tourism as a means of economic diversification and national development. Governments invested in the construction of modern infrastructure, including hotels, airports, and road networks, to accommodate the growing number of international tourists. Countries such as Türkiye, Egypt, and Morocco became popular destinations for European travellers seeking cultural and historical experiences. The rich heritage sites, such as the Pyramids of Giza, the Hagia Sophia, and the ancient city of Petra, attracted millions of visitors, contributing to the rise of cultural tourism in these regions (Prayag et al., 2021). The oil boom of the 1970s further accelerated the growth of tourism in the Gulf countries, particularly in Saudi Arabia, the United Arab Emirates, and Qatar. The newfound wealth enabled these countries to invest heavily in tourism infrastructure, including luxury hotels, shopping malls, and world-class entertainment facilities (Butler & Fennell, 1994). The rapid urbanization of cities like Dubai and Abu Dhabi transformed them into global tourism hubs, attracting visitors from around the world. However, the 20th century was not without its challenges for the tourism sector in OIC countries. Several crises in the region led to periods of decline in tourist arrivals. Despite these setbacks, many OIC countries continued to invest in their tourism sectors, recognizing its long-term potential for economic growth and cultural exchange.

## 1.3 Recent Developments (21st Century)

The 21st century has seen significant advancements in the tourism sector of OIC member countries, driven by technological innovation, globalization, and a growing focus on sustainability. The advent of the internet and digital platforms has revolutionized the way tourism is marketed and experienced. Online booking systems, social media, and travel apps have made it easier for tourists to access information, book trips, and share their experiences, leading to a surge in global tourism (Yang et al., 2024). In this digital age, several OIC countries have successfully positioned themselves as major players in the global tourism market. Türkiye, Malaysia, and the United Arab Emirates, in particular, have become top destinations, offering a blend of cultural heritage, modern amenities, and natural beauty. Istanbul, Kuala Lumpur, and Dubai have emerged as major international travel hubs, attracting millions of visitors annually. The growth of budget airlines, such as Air Arabia and Flydubai, has also made travel within the OIC region more accessible, boosting intra-regional tourism. A key trend in recent years has been the increasing emphasis on sustainable tourism in OIC countries. Recognizing the environmental and social challenges posed by mass tourism, many governments have started to promote eco-tourism and community-based tourism initiatives. For example, Jordan's eco-tourism projects in the Dana Biosphere Reserve and Oman's focus on preserving its natural landscapes have attracted tourists interested in sustainable travel experiences. The COVID-19 pandemic, however, has presented unprecedented challenges for the global tourism industry, including in OIC countries (Hassan et al., 2022; Citaningati et al., 2023). Travel restrictions, lockdowns, and health concerns led to a sharp decline in tourist arrivals and revenues. The pandemic has underscored the need for resilience and adaptability in the tourism sector, prompting many OIC countries to explore new strategies for recovery and growth. These include diversifying tourism offerings, enhancing health and safety measures, and leveraging digital technologies to reach new markets.

## 2. Current State of Tourism in OIC Member Countries

The tourism sector in OIC member countries has evolved significantly in recent decades, becoming a key driver of economic growth, cultural exchange, and regional development. The current state of tourism in these countries is characterized by diverse offerings, varying levels of development, and both opportunities and challenges that influence its overall trajectory. This section provides an overview of the economic, social, cultural, and environmental impacts of tourism in OIC member countries, highlighting the sector's significance and the factors shaping its current landscape.

### 2.1 Economic Impact

Tourism has become a vital component of the economies of many OIC member countries, contributing to GDP, employment, and foreign exchange earnings. For several nations, tourism is a primary source of revenue, particularly in countries with limited natural resources. In 2019, before the global disruptions caused by the COVID-19 pandemic, tourism in OIC countries contributed significantly to their economic output. For instance, in countries like Türkiye, Malaysia, and the United Arab Emirates, tourism accounted for a substantial portion of GDP, reflecting its role as a cornerstone of economic activity. The economic benefits of tourism extend beyond direct contributions to GDP. The sector generates significant employment opportunities, particularly in the hospitality, transportation, and service industries. In countries with large youth populations, such as Egypt, Indonesia, and Morocco, tourism provides a critical source of employment, helping to alleviate unemployment and reduce poverty. Moreover, tourism's multiplier effect stimulates growth in related sectors, such as agriculture, construction, and retail, further enhancing its economic impact.

Foreign exchange earnings from tourism also play a crucial role in improving the balance of payments for many OIC countries. The influx of international tourists brings in foreign currency, which can be used to finance imports and reduce trade deficits (Sarkhanov & Baghirov, 2024). This is particularly important for countries that rely heavily on imports for goods and services. Additionally, tourism investments, both domestic and foreign, contribute to infrastructure development and modernization, laying the groundwork for sustained economic growth. However, the economic impact of tourism is not uniformly distributed across OIC member countries. While some countries have developed thriving tourism sectors, others face challenges in attracting visitors and maximizing economic benefits. Factors such as inadequate infrastructure and limited international visibility can hinder tourism growth in certain regions. Moreover, the COVID-19 pandemic has exposed the vulnerability of tourism-dependent economies, with many OIC countries experiencing sharp declines in tourist arrivals and revenues. The pandemic has underscored the need for resilience and diversification within the tourism sector to mitigate future economic shocks (Javed et al., 2024).

## 2.2 Social and Cultural Impacts

Tourism in OIC member countries also has significant social and cultural implications, influencing both local communities and broader cultural narratives. One of the most notable social impacts of tourism is its role in promoting cross-cultural exchange and understanding. OIC countries, with their rich Islamic heritage and diverse cultural traditions, offer unique experiences that attract international visitors seeking to explore new cultures and histories. This exchange fosters greater global awareness of Islamic culture and contributes to the soft power of OIC member countries on the international stage. At the same time, tourism can contribute to the preservation and promotion of cultural heritage. Many OIC countries are home to UNESCO World Heritage Sites (e.g., Historic Areas of Istanbul in Türkiye and Petra in Jordan), historical landmarks, and traditional practices that attract cultural tourism. The revenues from tourism can be reinvested in the preservation of these sites and the continuation of cultural practices, ensuring that they are maintained for future generations. For example, the preservation of ancient cities like Samarkand in Uzbekistan and the promotion of traditional crafts in Morocco are closely tied to the tourism industry. However, the social and cultural impacts of tourism are not without challenges. The influx of tourists can lead to cultural commodification, where cultural practices and traditions are altered or commercialized to cater to tourist expectations. This can result in the loss of authenticity and the erosion of cultural identity (Cohen, E. (1988). Managing these social and cultural impacts requires a careful balance between promoting tourism and preserving the cultural integrity of OIC countries.

## 2.3 Environmental Impacts

The environmental impacts of tourism in OIC member countries are a growing concern, particularly as the sector continues to expand. The rapid development of tourism infrastructure, such as hotels, resorts, and transportation networks, can lead to environmental degradation if not properly managed. Issues such as habitat destruction, water pollution, and waste management are prevalent in regions where tourism is concentrated, posing a threat to the natural environments that attract tourists in the first place. Coastal areas and fragile ecosystems in OIC countries are particularly vulnerable to the negative impacts of tourism. For example, the Red Sea and the Mediterranean coasts, popular tourist destinations in countries like Egypt and Tunisia, face challenges related to coral reef degradation, beach erosion, and marine pollution (UNEP-MAP, 2009). Similarly, the rapid urbanization of cities like Dubai and Doha has led to the overexploitation of water resources and increased energy consumption, raising concerns about the sustainability of tourism development in these regions. In response to these challenges, many OIC countries have started to embrace sustainable tourism practices aimed at minimizing environmental impacts and promoting conservation. Eco-tourism, which focuses on responsible travel to natural areas, has gained traction in several OIC countries. For instance, Jordan's eco-tourism initiatives in protected areas like Wadi Rum and Oman's emphasis on preserving its pristine desert landscapes are examples of how tourism can be aligned with environmental sustainability. Additionally, some countries are investing in green infrastructure and renewable energy to reduce the environmental footprint of their tourism sectors. The environmental impacts of tourism in OIC countries also highlight the need for comprehensive policies and regulations that promote sustainable practices. This includes implementing strict environmental standards for tourism developments, encouraging the use of eco-friendly technologies, and involving local communities in conservation efforts. By prioritizing sustainability, OIC countries can ensure that their tourism sectors continue to thrive without compromising the natural and cultural resources that are central to their appeal.



### **3. Challenges Facing the Tourism Sector in OIC Member Countries**

The tourism sector in OIC member countries holds substantial potential for economic growth, cultural exchange, and regional integration. However, despite its promising prospects, the sector faces several challenges that impede its development and sustainability. These challenges are multifaceted, encompassing, infrastructure deficits, marketing difficulties, and regulatory barriers. Addressing these issues is crucial for the OIC countries to fully realize the benefits of their tourism sectors and compete effectively in the global tourism market.

#### **3.1 Infrastructure and Accessibility**

One of the major challenge facing the tourism sector in OIC member countries is inadequate infrastructure and limited accessibility. While some countries, particularly in the Gulf region, have made significant investments in modernizing their infrastructure, many others lag behind in providing the necessary facilities and services to support a thriving tourism industry.

Poor transportation infrastructure, including underdeveloped airports, roads, and public transportation systems, can significantly hinder tourism growth. For example, in many Sub-Saharan African OIC countries, limited flight connections and poor road networks make it difficult for tourists to access key attractions. Similarly, inadequate accommodation options, especially in rural and less-developed areas, can restrict the ability of these countries to attract and accommodate international tourists. In addition to physical infrastructure, the quality and availability of tourism services also pose challenges. The lack of trained personnel in the hospitality industry, including hotel staff, tour guides, and service providers, can affect the overall tourist experience. Moreover, issues related to the reliability of utilities such as electricity, water, and internet services can deter tourists, particularly in regions where these amenities are inconsistent.

To address these infrastructure challenges, OIC countries need to prioritize investments in transportation networks, accommodation facilities, and tourism services. Public-private partnerships (PPPs) can play a crucial role in mobilizing resources and expertise for large-scale infrastructure projects. Furthermore, improving connectivity through better air links and regional cooperation can enhance the accessibility of OIC countries as tourist destinations. Building capacity in the tourism workforce through training and education is also essential for ensuring that tourists receive high-quality services.

#### **3.2 Marketing and Branding Challenges**

Effective marketing and branding are crucial for attracting tourists to OIC member countries, yet many of these countries face significant challenges in this area. Despite their rich cultural heritage, natural beauty, and diverse attractions, several OIC countries struggle to gain visibility in the highly competitive global tourism market. Misconceptions about Islamic countries, often fuelled by negative media coverage and stereotypes, further complicate efforts to attract international tourists. One of the key marketing challenges is the lack of a unified and coherent brand identity for OIC member countries. Unlike regions such as Europe or the Caribbean, which have well-established tourism brands, the OIC lacks a collective marketing strategy that highlights the unique experiences and offerings of its member states. This fragmentation makes it difficult for individual countries to stand out and appeal to a broad audience of potential tourists. Additionally, the diversity of cultures,

languages, and tourism offerings within the OIC presents both an opportunity and a challenge. While this diversity allows for a wide range of tourism experiences, from desert safaris in the Arabian Peninsula to cultural tours in Southeast Asia, it also complicates the task of creating a cohesive brand that resonates with global audiences. The challenge is further exacerbated by the limited marketing budgets of many OIC countries, which restrict their ability to launch large-scale promotional campaigns and participate in international tourism fairs. To overcome these marketing challenges, OIC countries need to develop more effective branding and promotional strategies. Collaborative marketing initiatives, such as regional tourism campaigns and joint participation in international tourism events, can assist the development of tourism profile of OIC countries. Additionally, leveraging digital platforms and social media can provide cost-effective ways to reach global audiences and counteract negative stereotypes. Emphasizing the unique cultural and religious experiences available in OIC countries, such as halal tourism and Islamic heritage tours, can also help differentiate them in the global market.

### 3.3 Regulatory and Policy Barriers

Regulatory and policy barriers represent another significant challenge for the tourism sector in OIC member countries. Differences in visa policies, tourism regulations, and standards across the OIC region can create obstacles for both tourists and tourism operators. These inconsistencies can lead to confusion, discourage travel, and limit the potential for regional tourism cooperation. Visa requirements are a particularly problematic area. While some OIC countries have introduced visa-free or visa-on-arrival policies to attract tourists, others maintain stringent visa regulations that can deter potential visitors. For example, countries like Saudi Arabia have only recently begun to relax their visa policies to encourage tourism, while others still have restrictive entry requirements. The lack of a standardized visa policy within the OIC region hampers the development of intra-OIC tourism and makes it difficult for the region to compete with more tourist-friendly destinations. In addition to visa issues, regulatory differences in areas such as tourism licensing, safety standards, and environmental regulations can create challenges for tourism operators. These disparities can complicate the process of setting up and managing tourism businesses, particularly for international companies looking to invest in the OIC region. Furthermore, inconsistent policies on tourism taxation and fees can create additional costs for tourists and reduce the competitiveness of OIC destinations. To address these regulatory and policy barriers, OIC countries need to work towards greater harmonization of tourism regulations and policies. Establishing a standardized visa policy for OIC countries, similar to the Schengen visa in Europe, could facilitate easier travel within the region and boost intra-OIC tourism. Additionally, aligning tourism standards and regulations across the OIC region would create a more predictable and investor-friendly environment, encouraging greater investment in the tourism sector.

## 4. Future Prospects

The tourism sector in OIC member countries holds great promise for the future, with the potential to contribute significantly to economic development, cultural exchange, and regional integration. However, realizing this potential requires strategic planning, investment, and collaboration across multiple levels. This section explores the future prospects of the tourism sector in OIC countries and provides targeted recommendations to overcome challenges and maximize opportunities.

The future of tourism in OIC member countries is influenced by several global trends and regional dynamics that offer both opportunities and challenges. One of these trends is the growing demand for halal tourism. The global Muslim population is projected to grow, increasing the demand for halal tourism—a sector where OIC countries have a comparative advantage. Halal tourism caters specifically to Muslim travellers by offering services that align with Islamic principles, such as halal food, prayer facilities, and family-friendly environments (Battour, M., & Ismail, 2016). As awareness of halal tourism grows, OIC countries have the opportunity to position themselves as leading destinations in this niche market.

One other future trend is the rapid adoption of digital technology in the tourism industry. This presents significant opportunities for OIC countries to enhance their tourism offerings. The use of digital platforms for marketing, booking, and customer engagement can help OIC destinations reach a broader audience and improve the overall tourist experience. Innovations such as virtual reality (VR) tours, mobile apps, and personalized travel recommendations are transforming how tourists plan and experience their journeys, making technology a key driver of future growth in the tourism sector (Beck et al., 2019).

Enhanced regional cooperation among OIC member countries also presents significant prospects for the future of tourism in the region. By working together, OIC countries can create integrated tourism offerings, such as multi-country travel packages, regional tourism corridors, and joint marketing campaigns. Regional cooperation can also facilitate easier travel within the OIC region, attracting both intra-regional and international tourists. Additionally, collective efforts to harmonize tourism policies and standards can strengthen the competitiveness of the OIC region as a whole.

### 4.1 Recommendations for the Future Development of the Tourism Sector in OIC Member Countries

As highlighted, OIC member countries have strong potential to harness the power of tourism. To capitalize on the future prospects and overcome the challenges facing the tourism sector, OIC member countries should consider the following strategic recommendations:

First, there is a need to invest in infrastructure development. OIC countries should prioritize investments in transportation networks, including airports, roads, and public transit systems, to improve accessibility to tourist destinations. In addition, expanding accommodation options, particularly in less developed regions, is crucial to accommodate the growing number of tourists. Public-private partnerships (PPPs) can be an effective mechanism for mobilizing the necessary resources and expertise to develop and maintain high-quality infrastructure.

Second, promotion of halal and niche tourism markets is vital. OIC countries should actively promote halal tourism and other niche markets, such as eco-tourism, adventure tourism, and cultural heritage tourism. This involves not only developing tailored services and facilities that cater to these markets but also conducting targeted marketing campaigns to raise awareness among potential tourists. Establishing clear standards for halal tourism and certifying businesses that meet these standards can enhance the credibility and appeal of OIC countries as top destinations for Muslim travellers.

Third, embracing digital technologies is essential for modernizing the tourism sector in OIC countries. This includes developing online platforms for marketing and booking, creating mobile apps to enhance the tourist experience, and leveraging data analytics to understand tourist preferences and trends. OIC countries should also explore the use of emerging technologies, such as artificial intelligence (AI) and blockchain, to improve operational efficiency and security in the tourism industry. Training the tourism workforce to adapt to and utilize these technologies will be key to sustaining long-term growth.

Fourth, sustainability should be a cornerstone of tourism development in OIC countries. Governments should implement policies that promote sustainable tourism practices, such as reducing waste, conserving water and energy, and protecting natural habitats and cultural sites. Encouraging community-based tourism initiatives can also help ensure that tourism benefits local communities while preserving their cultural heritage. By positioning themselves as leaders in sustainable tourism, OIC countries can attract a growing segment of tourists who prioritize environmental and social responsibility.

Fifth, regional cooperation and policy harmonization is vital for creating a more integrated and competitive tourism sector. This includes establishing standardized visa policies to facilitate easier travel within the OIC region and coordinating tourism promotion efforts through joint marketing campaigns. OIC countries should also work together to harmonize tourism regulations and standards, making it easier for tourism operators to do business across the region. Such cooperation can help create a more cohesive and attractive tourism offering that appeals to both regional and international tourists.

Finally, there is a need to enhance crisis management and resilience so that the tourism sector can respond to crises, whether they are health-related, environmental, or geopolitical. OIC countries should develop comprehensive crisis management plans that include protocols for ensuring tourist safety, maintaining business continuity, and facilitating rapid recovery. Building resilience into the tourism sector involves not only preparing for immediate crises but also planning for long-term challenges, such as climate change and shifts in global travel trends. Developing strong public-private partnerships and fostering collaboration between government agencies and industry stakeholders are critical for enhancing the sector's resilience.

To conclude, tourism sector in OIC member countries has a significant potential but it is also subject to several challenges. By implementing the above-mentioned recommendations, OIC member countries can build a more competitive, sustainable, and resilient tourism sector that contributes to their economic development, cultural preservation, and social well-being. The future of tourism in OIC countries holds great promise, but realizing this potential will require coordinated efforts, strategic investments, and a commitment to continuous improvement and innovation.



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## Artificial Intelligence and Implications in the Tourism Sector in the OIC Member Countries

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### Abstract

Like many other industries, the integration of Artificial Intelligence (AI) into the tourism sector is revolutionizing the industry, especially within the member countries of the Organization of Islamic Cooperation (OIC). This chapter explores the transformative role of AI in enhancing tourism operations, marketing, and human resources, thereby making the industry more competitive, efficient, and customer-focused. By leveraging AI, tourism organizations can optimize resource allocation, improve customer experiences, and promote sustainable practices. This paper explores various applications of AI, such as data analysis, personalized marketing, automated customer service, and predictive maintenance, which collectively contribute to operational efficiencies and enhanced decision-making. Additionally, it highlights the significant AI-driven initiatives undertaken by leading OIC countries, including Türkiye, Malaysia, Saudi Arabia, and the UAE, showcasing their efforts to integrate AI for smart tourism planning and development. Despite the immense potential, the chapter also addresses the challenges faced in AI adoption, such as data privacy, ICT infrastructure needs, and the requirement for skilled workforce. By providing a comprehensive analysis, the conceptual paper underscores the necessity for strategic and balanced AI integration to ensure sustainable growth and competitiveness in the OIC tourism sector.

### Introduction

Like many other industries AI is also transforming the travel industry. This transformation is particularly significant in OIC (Organization of Islamic Cooperation) member countries, where tourism plays a vital role in economic development. Realizing the significance of this transformation COMCEC (Standing Committee for Economic and Commercial Cooperation of the Organization of the Islamic Cooperation), addresses the issue with a dedicated book chapter on the impacts of AI in OIC tourism. According to previous COMCEC (2023) reports, the OIC region offers a diverse range of tourism products, including cultural heritage, natural attractions, and religious tourism, particularly Hajj and Umrah in Saudi Arabia, which attract millions of visitors annually. Countries like Türkiye, Malaysia, Indonesia, and the UAE are other leading destinations within the OIC, known for their rich history, cultural diversity, and modern attractions.

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Artificial Intelligence (AI), simulation of human intelligence (e.g. problem solving, reasoning, decision-making, perception, and pattern recognition) by computer systems (Wang et al., 2020), is increasingly becoming a significant part of daily life particularly in reaching information and support decision making. AI also perform various tasks, including problem-solving, data analysis, language processing, image recognition, translation and reporting. Despite its potential, the tourism sector in many OIC countries faces several challenges, including inadequate infrastructure, limited marketing, and political instability in certain regions. The COVID-19 pandemic has further exacerbated these issues, leading to a significant decline in tourist arrivals and revenues (COMCEC, 2021). AI is increasingly being recognized as a tool to overcome some of these challenges and enhance the tourism sector in OIC countries. Several initiatives and projects have been launched to integrate AI into tourism. Hence the tourism industry in OIC also needs to adopt to emerging AI technologies to keep its pace in the future.

For example, realizing its potential the UAE is investing heavily in AI as part of its broader strategy to become a global leader in artificial intelligence. In the tourism sector (Kanan, 2024). AI is being used to create personalized travel experiences, optimize hotel and flight bookings, and enhance marketing efforts. Dubai, in particular, is using AI to develop smart tourism solutions that provide visitors with a seamless and enriched travel experience. Malaysia is also investing heavily on AI integrated smart destinations. Turkish travel industry on the other hand is integrating AI in customer service design, forecasting, pricing and reputation management. Saudi Arabia is also heavily integrating AI in visitor management and border control. Hence it is important to explore AI and its integration to tourism for a more competitive OIC tourism industry.

## Literature Review

AI systems have the ability to learn from data and adapt to new situations, enabling them to enhance their performance over time. This adaptability allows them to handle tasks that are too complex or unpredictable to be explicitly programmed. AI systems excel at solving problems that require reasoning, planning, and searching. This includes activities such as playing chess, diagnosing diseases, and planning routes for self-driving (Yang, 2022). AI systems can also perceive the world around them using sensors like cameras and microphones. This capability enables them to recognize objects, track movement, and understand natural language. Finally, AI systems can manipulate objects in the physical world using robots or other actuators. This allows them to perform tasks such as picking up objects, assembling products, and driving cars (Russell & Norvig, 2020). In general AI offers increased efficiency and productivity (i): AI automates repetitive tasks, allowing workers to focus on more complex responsibilities. For example, in manufacturing, AI-powered robots help optimize production lines, enhancing efficiency. AI is also able to provide enhanced data analysis (ii): AI systems can analyse vast amounts of data and identify patterns and trends those may be overlooked by humans. This capability is particularly valuable in scientific research, fraud detection, and business intelligence. Because of its data analysis capabilities, AI can also create improved decision making (iii). AI can analyse data and provide action recommendations, aiding in various fields such as logistics for supply chain optimization, healthcare for risk assessment, and finance for personalized therapy.



In short AI optimizes performance, creates efficiencies in operations, support humans and enhances performance (Rehman, et al., 2024). Its advantages include increased efficiency and productivity through automation of repetitive tasks, enhanced data analysis for better decision-making, and the potential for improved innovation through machine learning (Dwivedi et al., 2021; Javaid et al., 2021; Ribeiro De Oliveira et al., 2022).

Various industries including, healthcare (i.e. diagnosis, treatment), the automotive industry (i.e. autonomous vehicles), financial services (i.e. risk analysis, fraud detection), retail and e-commerce (i.e. personalized shopping, inventory management), education (i.e. monitoring student performance, teaching), security and surveillance (i.e. threat detection). AI is also able to create competitive advantages for organizations and the divide between organizations who effectively utilize AI and who don't is increasing towards the benefit of AI utilizers (Buchmeister et al., 2019).

AI is also used in tourism industry by both tourism organizations and tourists themselves (Kong et al., 2022). From the demand perspective AI is able to customize and optimize travel itineraries of tourists, facilitate trip planning and reservations, support improving travel experience, provide location based services and translation, which overall provides convenience during pre-, during- and post- trip activities. Hence travellers are now engaging with the sector in entirely new ways, while businesses enjoy optimized operations and improved efficiency. This powerful collaboration has the potential to transform the travel industry completely (Prince & Ragul Kannan, 2024). However, due to the human intensive nature of tourism industry, tourists still prefer human interaction during service delivery rather than completely rely on AI technology tools (Liman, 2022). As a relatively new technology the adoption of AI in tourism and its impacts (e.g. operations) are yet to be formulated (Aylak et al., 2021). This initial step on exploring AI's impact on OIC tourism approaches the issue from supply (Tourism Industry) perspectives.

## **AI Utilization by Tourism Industry**

Tourism industry stakeholders also utilize AI in operations, marketing, pricing, human resources. In tourism industry AI is expected to create a value added of 400 billion USD (Chui et al. 2018). AI provides various benefits to tourism industry, optimizing operations, improves customized services, decreases costs, while enhancing customer satisfaction and loyalty (Arora et al., 2023).

In this dynamic relationship, customization, operational efficiency, and data-driven marketing are key areas AI supports tourism industry. Tourism organizations those embrace the latest AI innovations will not only remain competitive but also provide travellers with exceptional services. This partnership will make travel more accessible, personalized, sustainable, and secure, marking a paradigm shift in how tourists experience the destination (Prince & Ragul, 2024). AI also provides improved travel security, fraud detection and prevention, dynamic pricing, customized travel recommendations, weather and traffic predictions, virtual travel assistants, language translation services, enhanced customer experience, Augmented Reality (AR) and Virtual Reality (VR) experiences, and automated travel insurance services. AI's impact on tourism industry can be categorized under three groups. These are operations, marketing and human resources.

## Operations

AI is able to automate routine tasks such as data analysis, customer inquiries, and inventory management, enabling tourism businesses and destinations to allocate resources more effectively, resulting in various operational efficiencies. By handling background tasks (e.g. accounting), AI allows humans to focus more on the operational aspects of tourism, facilitating a smoother operation flow. Procurement, reservations, accounting and finance, budgeting, security, smart applications and destinations, improved revenues, menu planning, decreased costs, optimized profits, and creating competitive advantages are possible by integrating AI in tourism operations (Naqvi et al., 2023).

AI can assist on comprehensive planning and management of various tasks such as inventory management. By predicting the necessary quantities of items (e.g. menu ingredients) and providing order recommendations based on demand forecasts, and price research AI might effectively automatize the procurement. Additionally, AI can predict menu preferences based on customer types, segment reservations, and analyse price sensitivities, providing valuable data-driven insights for informed decision-making in menu planning and product design. AI-powered predictive maintenance proactively monitors buildings and equipment to minimize downtime and ensure reliable technical service and amenities.

Businesses can maximize their resources by providing services more efficiently, anticipating periods of high travel demand, and adjusting their operations accordingly. Additionally, the implementation of AI-powered kiosks for automated check-in procedures at hotels and airports has significantly reduced wait times, enhancing traveler/traveller convenience and optimizing their overall experience (Prince and Ragul, 2024).

Chatbots are also available at brand.com hotel and travel trade websites are cloned and supplied with organizational data, communicate with customers (Koo et al., 2021), answer their questions (e.g. location, menu, facilities) even make reservations (Parvez, 2021). Some of these digital chatbots, supported by image and sound are referred to as virtual assistants, significantly reduce operational costs while improving guest experience.

AI would be able to facilitate minimize carbon footprint of both tourism organizations and their guests. As the demand for environmentally friendly travel solutions increases, AI is also driving sustainability in the sector by optimizing travel routes and reducing emissions. Hence, AI integration in tourism operations also contributes to sustainability of both tourism organizations and destination development by minimizing environmental impact, optimizing transportation systems, and reducing congestion. Effective planning and management decisions supported by AI can also ensure the equitable distribution of tourism benefits while preserving local resources and communities.

Sustainable tourism practices can be further improved by using AI to forecast demand and adjust services dynamically, ensuring that both the needs of tourists and the sustainability goals of destinations are met. AI can determine the time-periods and locations frequented by tourists of their profile and the duration of their stay. These insights enable the customization of destination planning and public transportation needs, ensuring that services are sustainable to tourist patterns.

Therefore, AI aids in managing tourist flows, reducing environmental impact, and promoting sustainable practices, contributing to responsible tourism development. At airports, for example, AI systems can monitor and manage aircraft locations, passenger counts, and other real-time data. Municipalities can leverage data generated by tourists, such as Wi-Fi connection logs that reveal user nationalities. The data collected by various sectors, can be integrated into AI-supported systems to enhance planning and marketing strategies. By analyzing these datasets, AI can identify the time periods and locations frequented by tourists of different nationalities, as well as the duration of their stays.

Integration of AI in destination planning and management would also support smart tourism, which emphasizes data-driven insights, AI-powered personalization, and smooth digital experiences (Gretzel et al., 2018). Smart destinations can utilize these technologies to enhance visitor experiences, optimize resource management, and boost overall destination competitiveness. For example AI can analyze tourist flow data to predict congestion points and optimize resource allocation, enhancing traffic flow, optimizing staffing at attractions, and ensuring a smooth visitor experience (Jacques Bulchand-Gidumal et al., 2024). Therefore, these insights enable the customization of destination planning and public transportation services, ensuring they are tailored to tourist demands. For instance, AI can guide the development of specific programs based on tourists' origins and travel behaviors, facilitating more efficient and sustainable resource allocation, AI recommender systems can also be used to nudge tourist behavior and direct them to less congested areas of the destination (Majid et al. 2024).

AI can help identify the country of origin of tourists, their accommodation choices, waiting times, and create density maps. It can also assess bed capacity needs, identifying whether there is a shortage or excess supply, and match demand with supply. AI can anticipate the need for infrastructure systems such as sewage, internet, and telecommunications, allowing for proactive measures to be taken. This ensures that necessary upgrades and expansions are made in advance, improving overall efficiency and service quality for tourists.

## Marketing

Marketing can be defined as creating, pricing, communicating and distributing products and services in a way that satisfy the target customers. AI can be used for all of these functions of marketing starting with the market research, segmenting and targeting, positioning, pricing, marketing communications, distribution, customization, search engine optimization, forecasting, guest relations, loyalty, reputation management and so on. All of these actions require extensive data analysis and decision making which their effectiveness is very significant for tourism organizations (Jacques Bulchand-Gidumal et al., 2024).

AI-driven insights enable informed decision-making based on real-time data, leading to enhanced marketing strategies, optimized pricing models, and improved service offerings. For example, AI can be used in customizing products and services based on guest profile, past services and usage patterns to maximize satisfaction and experience (Barten, 2024). Various luxury tourism firms already utilize guest logs to remember guest preferences (e.g. allergies) but doing this level of customization at a large scale requires too many motivated employees. Mass-customization is now easier with AI, which plans and warns related staff about guest preferences (e.g. type of pillow) before the guest checks-in.

As discussed earlier AI will also be increasingly integrated with other tools such as VR and AR. Using such tools, tourist will have a broader and more immersive opportunities to test the services, hotels, attractions and destinations (Guttentag, 2010). For example, AI-powered Augmented Reality (AR) and Virtual Reality (VR) provide immersive travel experiences, allowing tourists to explore attractions virtually before booking (Orden-Mejía and Huertas, 2021).

AI can be integrated into business systems to enhance forecasting, pricing strategies, and marketing channel impact analysis, as well as reputation management. AI systems can interact with customers, generate reports, and optimize search engine results (SEO), significantly improving overall business performance. In terms of pricing some tourism organizations already utilize AI for pricing. These pricing systems have the ability to look into past data, future reservation requests, prices of the competition, events at the destination and so on and update rates automatically. Forecasting will also be more effective and AI will provide better predictions on demand and its timing (Cetin et al, 2016). Organizations will also be better foresee cancellations and improve overbooking effectiveness. This will also reflect itself in cancellation policies and tourists will face a more relaxed cancellation and no-show rules (Aydogan et al., 2024).

Tourism organizations will also be more effective in managing their distribution channels (e.g. OTAs) by constantly measuring their performance against costs and commissions (Ray et al., 2024). Reputation management in social media and OTAs will also be easier with AI analysing, reporting and responding to guest comments real-time (Cobanoglu et al., 2021).

AI-driven data analytics has also revolutionized marketing communications which will become more customized and effective. Tourism organizations can now analyze vast amounts of customer data with unmatched accuracy to identify patterns and behaviors, enabling the creation of offers and marketing campaigns precisely tailored to individual needs and interests. AI can enhance marketing communications by optimizing message and image design as well, leading to more effective promotional strategies (Huang et al., 2021). This ensures that marketing efforts are more engaging and tailored to the target audience, increasing the overall impact of campaigns. AI-powered recommendation engines play a crucial role in boosting revenue and bookings by providing highly personalized booking experiences, suggesting itineraries, accommodations, and activities based on user preferences. ensuring that travellers receive promotions tailored to their preferences and needs (Prince and Ragul, 2024).

Personalized recommendations, AI powered chatbots, kiosks and virtual assistants will streamline the booking process and provide tailored experiences, significantly boosting customer satisfaction. These chatbots and the concept of an online concierge offer 24/7 service, enhancing the overall customer experience (Li et al., 2021).

## Human Resources

Tourism is a human intensive service, employing eight times more staff than manufacturing per unit investment. The service quality is also very much dependent on the staff, this is why most tourism positions on the front-line (e.g. waiters) are expected to preserved in tourism, as most tourists prefer personal interaction (Oravec, 2018). While some back-of-the-house jobs (e.g. accounting) will be replaced by AI. For frontline jobs, AI will also minimize staff time by delegating standardized tasks to AI (Samala et al., 2020).



AI can also be used in different HR tasks, including job descriptions, selection, motivation, training, career management, and retention of staff. For example, AI can make a short list of suitable candidates for an open position, measure employee performance, design customized training programs, career paths and offer alternative benefits to identify employees who are more likely to be loyal to the organization. AI can evaluate candidate motivation levels, predict employee tenure, and estimate turnover intentions, thereby streamlining and improving the hiring process. Providing such critical information AI can enhance recruitment, motivation and retention of employees. Most tourism companies offer services around the clock. AI can also be used for efficient workforce management, to design the optimal scheduling and shifts for human resources.

## **AI Integration Cases from OIC Tourism Destinations**

Various destinations within OIC has already started to integrate AI in their tourism operations, marketing and human resources activities. Türkiye for example is gradually integrating AI into its tourism industry, focusing on enhancing customer service and optimizing operations. AI is employed in various facets such as customer service design, where AI-powered chatbots assist tourists in multiple languages, ensuring a more seamless experience. Additionally, AI is being used in forecasting tourist trends and managing dynamic pricing strategies, which helps in maximizing revenue during peak seasons. Türkiye's tourism sector also benefits from AI in reputation management, where AI tools monitor and analyze online reviews to provide actionable insights for businesses (Alrwadieh et al., 2021). The UAE has also been leading the charge in AI adoption across various sectors, with a significant focus on tourism. AI is utilized to create personalized experiences for tourists by analyzing their preferences and behaviors. The government's proactive stance is evident in initiatives like the UAE's National AI Strategy 2031, which includes the development of AI-driven platforms that enhance the efficiency and personalization of tourism services. AI technologies are also being used in marketing to target specific audiences, thereby increasing engagement and forecasting tourism numbers (Gulf News, 2024).

Malaysia, another leading destination in OIC is positioning itself as a leader particularly in AI-integrated smart destinations. The government is heavily investing in AI technologies that enhance tourist experiences, such as AI integrated smart city initiatives. These technologies allow tourists to navigate efficiently through cities using real-time data and AI-driven traffic management systems. Malaysia is also using AI to analyze tourism data, enabling more informed decisions regarding infrastructure, transportation and resource allocation, which ultimately boosts the country's competitiveness as a tourist destination (Hasan, 2024). Saudi Arabia's Vision 2030 plan also emphasizes AI as a key component in transforming its tourism sector. AI is being integrated into visitor management and border control, with technologies such as biometric recognition and predictive analytics ensuring a seamless and secure entry for tourists. The Kingdom is also leveraging AI to manage large-scale events, including the annual Hajj pilgrimage, by monitoring crowd densities and providing real-time updates to both visitors and authorities. These AI initiatives are central to Saudi Arabia's broader goals of diversifying its economy and becoming a global tourism hub (Alamoudi, 2024).

## Conclusions

The integration of artificial intelligence (AI) into tourism, marks a significant milestone in the sector's digital transformation. AI tools contribute to making the industry more competitive, efficient, and customer-focused. As discussed above AI can create various benefits and increase performance on operational, marketing and human resources areas for tourism organizations while improving tourist experiences by offering various tools.

AI provides various automation opportunities in tourism operations which improve resource allocation and thus create cost benefits while enhancing sustainability. In marketing, AI plays a pivotal role in creating targeted advertising campaigns and customer segmentation. By analyzing customer data, AI can develop personalized marketing strategies to reach the right audience. Additionally, AI algorithms can help identify the most effective content and campaigns on social media and digital platforms, optimizing reputation management and marketing efforts. AI-supported systems, with their 24/7 service capability and rapid response times, can promptly meet customer needs (Bowen and Morosan, 2018). However, tourism is a social activity and most customers still prefer human interaction. Thus human resources play a significant role in situations requiring empathy and emotional intelligence. Direct communication with a person can be more reassuring and satisfying for customers, especially when resolving issues or addressing special requests. This is one of the reasons people prefer to play chess with real humans rather than AI (e.g. Deep Blue).

In general, customer preferences may require a balance between human-AI interactions and human-to-human communication. Tourism businesses and destination managers can cater to diverse needs and expectations of tourists by offering both forms of interaction. By delegating routine and repetitive tasks to AI, human employees can focus on more complex and personalized matters, thereby optimizing the customer experience efficiently and personally. For those seeking authentic experiences, human interaction remains paramount. AI in tourism does not necessitate a forced technological focus on the sector but rather complements and enhances existing systems. The impact of AI on human employment, the specific tasks AI will automate, and the evolution of the human workforce are essential topics that require careful attention. Training and upskilling tourism sector employees to work alongside AI technologies is crucial for the successful integration of AI. Hence there is also an increasing need to explore AI and how it effects tourism jobs, as well as tourist experiences, marketing and operations.

Although AI technology is accessible to everyone, its effectiveness depends on the underlying infrastructure, such as internet connectivity and computing capacity. One of the most significant disadvantages is the high initial costs associated with installing and maintaining AI systems, which can be prohibitive for small businesses. These factors must be taken into account to ensure the responsible and effective deployment of AI systems within OIC countries. AI is dependent on data, therefore organizations, NTOs and DMOs should acknowledge this significance and make investments to collect, store and utilize quality data in AI tools.

AI systems have also some drawbacks. Firstly, AI's extensive collection and processing of consumer data raise concerns about data security and privacy. Robust cybersecurity measures will be essential to safeguard sensitive information as AI technologies advance. For instance, options like controlling cameras can capture images and sounds from our surroundings, raising privacy issues. Additionally, questions arise regarding copyright, as AI may not always obtain permission from the owners of the data it collects (Dwivedi et al., 2023).

AI systems can also experience “hallucinations,” generating incorrect information and refusing to acknowledge errors. The insights provided by AI are also debatable and considered to be biased. While AI can present vast amounts of information as a comprehensive picture, it often lacks detailed insights, necessitating further interaction to obtain specifics. Despite these limitations, AI enables quicker, more efficient decision-making compared to manual processes. Though the quality of decisions might be higher with ample time and without AI. However, such time is typically unavailable, making AI a valuable tool for timely decision-making. Therefore, although AI creates various efficiencies, the human oversight is always needed in utilizing such systems. There are also an increasing shortage of AI technical experts, hence OIC decision makers should invest on developing capacities on AI expertise to utilize these systems more effectively.

In conclusion, AI's role in the tourism sector is constantly evolving, offering significant opportunities for all stakeholders. Strategic and careful integration of these technologies will enhance customer satisfaction, operational efficiency, and the overall competitiveness of tourism sector within OIC. To fully leverage the potential of AI, the industry must adopt innovative approaches and develop strategies that align with its dynamic nature. Future collaboration efforts on sharing tourist data particularly for Hajj visitors, training and creating tourism specific AI applications, Visa, aviation and border control processes as well as human resources might provide various efficiencies and enhance productivity within OIC destinations.

This chapter contributes to the tourism industry by providing a comprehensive analysis of AI integration, emphasizing the need for a balanced approach between AI capabilities and human interaction. The findings highlight that while AI offers numerous benefits, such as increased efficiency, personalized marketing, and enhanced operational management, the human element remains indispensable, particularly in customer service scenarios requiring empathy and emotional intelligence. By addressing both the technological and ethical dimensions of AI integration, this paper offers valuable contributions to the ongoing integration of AI into the OIC tourism sector.

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## Diversification of Tourism in the Organization of Islamic Cooperation (OIC) Member Countries

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### Introduction

The Organization of Islamic Cooperation was established in 1969. Initially, it was named the Organization of the Islamic Conference, which was later changed to the Organization of Islamic Cooperation (OIC) in 2011. The OIC comprises 57 member states with five observer countries (Republic of Türkiye, Ministry of Foreign Affairs, 2022). Many member countries within the OIC possess considerable potential for tourism growth, underpinned by their rich cultural, historical, and natural assets. However, many member countries rely heavily on a limited variety of tourism products, such as religious, cultural, or beach tourism. Developing and implementing a diversified tourism strategy is imperative to optimize the tourism potential and mitigate the risks associated with sector concentration (Kian et al., 2020; SESRIC, 2024). Although each member country has a unique and storied cultural heritage with rich historical and traditional elements, there have been limited research studies and discussions on how OIC member countries can diversify their tourism industries. Given that, this article aims to discuss potential areas for diversification in tourism in the OIC member countries.

### A Strategic Framework for Tourism Diversification in OIC Member Countries

The tourism industry in the OIC countries holds significant potential for economic growth. Rather than relying on limited tourism offerings, OIC countries should diversify their tourism products and services to improve their positive economic impact. However, diversification of tourism requires a planned and comprehensive approach (Benur & Brawmell, 2015). There are also several specific aspects to creating successful tourism diversification efforts. One crucial aspect is creating a structured framework for expanding tourism offerings for OIC countries, which can involve clarifying ideas, developing and classifying various types of products, recognizing factors that influence the process, assessing results, and executing successful market diversification strategies (COMCEC, 2018). *Product development* refers to designing, developing, and offering new products and services based on a systematic analysis of potential customers' expectations and abilities of a region's public and private tourism organizations. *Product diversification* includes various types of tourism, such as cultural, adventure, ecological, culinary, and wellness in order to expand the variety of experiences offered in OIC countries (Kusumah, 2024).

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*Market diversification* aims to attract different demographics in the countries (e.g., age, gender, educational background, income) and expand into new regions by customizing products and services to meet the needs and interests of specific age groups (Camilleri & Camilleri, 2018). Factors impacting market trends are economic conditions, competition, technological advancements, and environmental considerations. Some positive results of tourism diversification include a stronger market presence, improved destination image, financial stability, and the preservation of culture (Andaleeb, 2016).

Market research in OIC can help identify target segments and their preferences. This, in turn, can facilitate the development of innovative tourism products tailored to meet diverse market demands (Andaleeb, 2016). Furthermore, investing in infrastructure such as transportation, accommodation, and supporting facilities plays a vital role in shaping a tourism product (Nguyen, 2021). Moreover, enhancing the knowledge and skills of tourism professionals, launching effective marketing campaigns, encouraging collaboration between the public and private sectors, and prioritizing environmental sustainability are all crucial elements that require a strategic approach in tourism product development efforts (De Lacy et al., 2002). On the other hand, having too many diverse products or services can undermine the strength of tourism products in OIC countries. To achieve some positive outcomes, it is essential to conduct comprehensive market research, engage stakeholders, implement pilot programs, establish partnerships, adopt sustainable practices, and tailor marketing strategies to cater to the needs of a wide range of audiences. By embracing this structured approach, OIC countries can diversify their tourism offerings and foster a more dynamic and sustainable environment (OIC, 2016).

Tourism in OIC countries often faces the challenges of seasonality. Expanding the range of tourism products and services can mitigate risks associated with seasonal fluctuations and market dependencies (Martin et al., 2020). This strategy can help OIC countries diversify their tourism through international collaboration. Promoting Islamic heritage and culinary traditions and diversifying tourism segments in line with the OIC region's geography and cultural heritage, along with regional partnerships, can be suggested. For example, Islamic tourism can be promoted by highlighting its cultural and historical aspects and by adding educational aspects. Encouraging the development of joint tour packages across the OIC can be beneficial. This approach can incorporate environmental sustainability, cultural conservation, and social benefits into tourism growth. Leveraging digital technologies is crucial for enhancing the tourist experience, refining marketing strategies, and streamlining operations. Countries in the region can showcase their unique offerings through technological investments (COMCEC, 2018).



## Trends in Tourism Diversification for OIC Member Countries

The tourism industry is experiencing a significant evolution, influenced by several prominent global trends (Fauzi & Batour, 2024; Kumar et al., 2024; Wang et al., 2023). For example, *experiential tourism* has a noticeable shift towards seeking authentic and immersive travel experiences, leading to an increased demand for specialized tourism products and services (Godovykh & Tasci, 2020; Smith, 2006). Experiential tourism may involve unconventional travel routes and innovative approaches, such as mindful, reverse theme, and distance travel. Travelers can immerse themselves in different cultures by staying with locals or participating in exchange programs (Altexsoft, 2022). The other prominent global trends are *sustainability*, *digital transformation*, *wellness and health tourism*, *silver tourism*, and *gastronomy tourism*. Increasing environmental awareness is driving the need for *sustainability* and environmentally friendly tourism offerings. Technological advancements bring *digital transformation*, reshaping the tourism industry and facilitating personalized experiences, online booking services, and virtual tourism experiences. A growing emphasis on well-being is generating a surge in demand for health-centered travel experiences which creates *wellness and health tourism*. The aging population represents a substantial and expanding market segment with unique needs and preferences for *silver tourism* (Zsarnoczky et al., 2016). Finally, *gastronomy tourism* (Okumus & Cetin, 2018) influences tourists' destination choice and satisfaction. Therefore, emphasizing on gastronomy tourism in the OIC countries has the potential to create employment opportunities, stimulate economic growth, bolster the global presence of local cuisine and cultural heritage, and enhance overall sensory experiences.

## Tourism Diversification Challenges in the OIC Member Countries

OIC Member Countries are facing a variety of challenges in their tourism development efforts (SESRIC, 2024). Among these challenges, insufficient infrastructure development is an important challenge that adversely affects the tourism industry. Insufficient transportation, lodging, and related infrastructure can greatly contribute to this issue (Jangra et al., 2024). Another challenge is the shortage of skilled employees in tourism businesses. This creates a gap in human capital and hinders sectoral growth (Alamu, 2016). Additionally, marketing and promotional efforts weaknesses may impede reaching target markets and the communication of unique selling points (Bishar & Robertine, 2023). As noted earlier, seasonal fluctuations are a concern, as they lead to a reliance on peak tourism seasons, resulting in revenue fluctuations and underutilization of resources (Grossi & Mussini, 2021). Furthermore, intense global competition requires tourism destinations to innovate and differentiate their products and services (COMCEC, 2018). However, the OIC countries may be slow or fail to innovate and differentiate their tourism offerings. Finally, political and security concerns can discourage potential visitors due to issues of instability and security (Okumus, 2024).

## Opportunities for Regional Collaboration

The OIC Member Countries can benefit greatly from regional collaboration to overcome these challenges and fully maximize their tourism potential. By implementing unified marketing strategies and joint campaigns, they can enhance the global visibility of the region. Sharing best practices and knowledge exchange can accelerate tourism development. By collectively focusing on enhancing human capital through capacity building, they can address workforce shortages. Additionally, developing tourism products and services through regional cooperation can create cooperation and attract a broader range of visitors. Moreover, sustainable tourism initiatives and shared commitments to environmental protection can strengthen region's reputation. Through concerted efforts to address these challenges and adapt to emerging trends, OIC member countries can achieve sustainable tourism growth, create employment opportunities, and preserve their cultural heritage (SESRIC, 2017).

A dedicated platform can be created to coordinate Islamic tourism initiatives, set standards, and improve the global promotion of the industry. Establishing a regional certification system to recognize and incentivize sustainable tourism practices is also possible. Setting up a fund to support tourism projects focusing on diversification and sustainability could be advantageous. Lastly, the establishment of a specialized agency to promote the OIC region as a unified tourism destination could be worth considering. By implementing these recommendations and fostering strong international cooperation, OIC member countries can promote sustainable tourism growth, job creation, and preservation of their cultural heritage (Islam, 2017; SESRIC, 2024).

## Tourism Diversification Efforts among the OIC Member Countries

The Member Countries of the OIC are rich in cultural, historical, and natural resources, offering great potential for tourism development. To fully leverage this potential, many OIC countries have developed diversification strategies to reduce reliance on traditional tourism sectors. For example, one of the effective approaches can include integrating traditional wellness therapies such as Eastern medicine, baths, and spas, showcasing healthy superfoods in culinary selections, offering outdoor activities and cultural fitness classes, and improving sleep quality through high-quality bedding and sleep kits. By adopting these products and services, tourism businesses can offer distinctive experiences that meet and exceed guests' expectations while honoring their unique, vibrant cultural heritage and natural landscapes (Baker, 2023). Several member countries of the OIC have achieved some success in diversifying their tourism economies. For example, The United Arab Emirates has successfully positioned itself as a global business hub, hosting conferences, exhibitions, and corporate events. Additionally, the country has developed a reputation for luxury tourism, catering to high-end travelers (Business Destinations, 2024). Türkiye has shifted its focus to thermal and spa tourism, drawing on its historical and cultural heritage and utilizing its natural hot springs. Türkiye has made great progress in gastronomy and winter tourism infrastructure, broadening its appeal to a broader range of visitors (Okumus & Linton-Kelly, 2022).

Malaysia has effectively broadened its tourism sector through a focus on eco-tourism, medical tourism, MICE tourism, and cultural tourism. Key contributors to Malaysia's success include strong government backing, a sustainable approach to tourism, the utilization of cultural diversity, and the development of human resources. Malaysia's experience offers valuable insights for other OIC member countries, highlighting the significance of a comprehensive strategic outlook, cooperative partnerships, sustainable growth, and ongoing innovation in attaining sustainable tourism expansion (Hmedan et al., 2023; Malaysia Tourism Promotion Board, 2024; SESRIC, 2024). Indonesia has capitalized on island tourism, promoting activities such as diving, surfing, and beach vacations. This country's diverse cultural heritage has also been influential in attracting niche markets (Ministry of Tourism Republic of Indonesia, 2024). Qatar Tourism (2024) has successfully met the most current quality process standards set forth by the International Standards Organization. This prestigious certification serves as a testament to its exceptional operational efficiency and effectiveness, demonstrating a strong alignment with the best practices recognized at an international level. Jordan has made significant improvements to its infrastructure, making it convenient for visitors to access all parts of the country (Invest Jordan, 2024). Well-maintained roads and highways offer easy travel, and there are a variety of transport options, including daily flights connecting the capital to the coastal cities.

### **Joint Efforts and Common Challenges among OIC Member Countries**

OIC Member Countries should recognize and address common challenges collectively. By focusing on sustainable tourism, digital transformation, human capital development, and infrastructure improvement, these countries can promote harmonious coexistence. Embracing technology and fostering technological exchanges can elevate the overall tourist experience, bolster marketing endeavors, and streamline operations for member states. Investing in tourism education and training programs and sharing these initiatives can cultivate a skilled workforce. Enhancing transportation, accommodations, and support facilities requires substantial investment and demands regional collaboration. Therefore, the OIC member countries can initiate joint marketing campaigns and product development endeavors, understanding the advantages of cooperation. Notably, adapting to global trends has become increasingly crucial for these countries. The OIC countries should adapt their tourism diversification strategies to align with emerging trends in order to remain competitive. For instance, there is a growing focus on experiential tourism which aims to create immersive and distinctive travel experiences. The member countries can also integrate health and wellness components into their tourism offerings. The development of silver tourism is still expected. Addressing the needs and preferences of the growing population of older travelers is a priority. Through leveraging their assets, addressing common challenges via collaboration, and embracing global trends, the member states of the OIC can effectively diversify their tourism and achieve sustainable growth (OIC/SUM, 2024).

## Conclusion

This article discussed potential areas for tourism diversification in OIC member countries. Many member countries have great potential for tourism development based on their rich cultural, historical, and natural assets. Despite this, they often rely on limited tourism offerings such as religious, cultural, or beach tourism. Therefore, developing and implementing a diversified tourism strategy is essential for member countries. Developing and implementing tourism diversification efforts typically involve a strategic approach, with overlapping phases of analysis, planning, implementation, and evaluation.

*In the analysis phase*, it is essential to evaluate the current tourism products, services, and activities in the destination, expectations of potential tourists and their segments, and explore new and unique tourism experiences, products, and activities to enhance the existing niche and mass tourism offerings (Benur & Bramwell, 2015). Engagement of key stakeholders, including local communities, businesses, and government agencies, should be ensured. *In the planning process* of tourism diversification, a comprehensive plan should outline specific initiatives for diversifying tourism, including timelines and resource requirements. In the implementation phase, previously identified actions should be followed to develop new products and services. Resources should be allocated to develop the necessary infrastructure, facilities, and services; marketing and promotional strategies should be developed and implemented to raise awareness and attract visitors to the new tourism experiences. Finally, *during the evaluation phase*, feedback should be gathered from visitors, tourism professionals, local communities, and all other stakeholders. Such efforts are necessary to make changes to ensure the sustainability of the diversification efforts (González-Rodríguez et al., 2023; Taleghani et al., 2011).

The tourism offerings in OIC countries are diverse and enriched by the inherent cultural traditions and customs. Diversification efforts should be carried out in a way that preserves the religious and social aspects of the region. For instance, member countries can focus on uncovering and promoting the region's rich historical, religious, and cultural heritage and emphasizing the gastronomy elements. In each member country, the Ministry of Tourism and Heritage at the national level and destination marketing and management organizations or tourism offices in each destination at the regional or provincial level should play a key role in the development and implementation of diversification efforts. In such diversification efforts, there should be a strong emphasis on cultural tourism with a focus on preserving heritage sites, engaging with local communities, and providing diverse gastronomic experiences. Adventure tourism (Xiong et al., 2023), camp tourism (Mikulić et al., 2017), desert sports (Visit Dubai, 2023), or other outdoor activities can play a significant role, offering activities such as hiking, trekking, and water sports in some regions. These experiences can be designed to integrate eco-tourism principles and cater to sports enthusiasts. Moreover, efforts should also be made to enhance the Meetings, Incentives, Conferences, and Exhibitions (MICE) infrastructure to create a business-friendly environment that attracts conferences, incentives, meetings, and exhibitions. Finally, the development of health and wellness tourism should be a priority, encompassing medical tourism and traditional and modern wellness services that promote overall health, well-being, and relaxation for visitors (Okumus & Linton-Kelly, 2022).



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