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Benchmarking halal Ecosystems of European countries with other regions using the HDC's 10-halal Ecosystem indicators

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ABSTRACT

Keywords:

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In this paper, we will emphasize the importance of the "halal ecosystem" for the Islamic economy. To this end, a survey was conducted that aims to serve as a useful, effective and unbiased resource that selected European countries (countries that participated in the survey) can use to inform their long-term strategy for building a halal ecosystem and facilitating halal trade. The study also aspires to identify and map preexisting (decentralized and/or centralized) Halal Ecosystems. The study utilizes the HDC Global Halal Ecosystem Indicators created by Halal Development Corporation (HDC) as a starting point for analyzing the prospects for bolstering global halal ecosystems. We foresee the "Halal Ecosystem" becoming a defining paradigm in worldwide commerce, finance, and economic growth. This study will pave the way for the development of a Halal Ecosystem strategy applicable to the Halal sectors in the target countries.

1. Introduction

The halal market is rapidly developing. Among the growth factors are the growing Muslim population, the awareness of the Muslim consumer, as well as the fact that the basic principles of halal and Islamic values can coexist with the promotion of the United Nations Sustainable Development Goals.

The latest projections put Muslim spending in 2021 at \$2 trillion spanning the industries of food, pharmaceuticals, cosmetics, fashion, travel, media, and recreation. In 2025, it is estimated that Muslim consumption throughout the world would total USD\$2.8 trillion (Dinar Standard, 2022). The Halal sector has become a powerful and profitable market. The global market for Halal products and services is expected to grow along with the increasing Halal literacy of consumers.

Principles of Halal and Islamic values can coexist with the promotion of the United Nations' Sustainable Development Goals (UN SDGs) in the areas of social and economic development, business ethics, and environmental sustainability (Dariah et al., 2019; Dariah et al., 2016; Haqqoni et al., 2020; Idris et al., 2022; Mukhtar et al., 2018; Noor & Pickup, 2017; Shaikh & Hassan, 2018; Yesuf & Aassouli, 2020).

HDC (Halal Development Corporation Berhad) recently conducted a study with the support of important Islamic institutions such as the Standard Metrology Institute for Islamic Countries (SMIIC) and Islamic Development Bank (IsDB). The study attempted to establish the term "Halal Ecosystem" as a new essential idea in the fields of international affairs, commerce, management, finance, and trade, describing the infrastructure of interdependent

domains inside the Halal value chain. Halal Ecosystem Concept is intended to improve participation and coordination towards the ability to supply a highly-lucrative consumer demand (Erwaedy et al., 2021; Noordin et al., 2014; Shafii et al., 2018)

2. Design/methodology/approach

The questionnaire was designed to gather and provide quantitative statistical data regarding the Halal Ecosystem, with the concept being predicated on expert feedback from a process of consultation which occurred in June-July 2021. To facilitate speedy and focused resource mobilization (financial or development aid, technical assistance, or institutional capacity building), the questionnaire was also expected to address the importance of the 10 Halal indicators as a rapid evaluation tool. To determine the Key Field for Action (KEYFA) for developmental initiatives inside a country's ecosystem, the Global Halal Ecosystem Assessment study employs cutting-edge methodology with a questionnaire that was participated by 17 European countries (69 countries including other regions). Several indicators were identified as the 'performance determinants' of a country's Halal industry, and this has led to the development of the "10 Halal Ecosystem Indicators", listed as follows: 1. Integrity; 2. Governance; 3. Planning and Policies; 4. Data & Analytics; 5. Incentives; 6. Science, Technology and Innovation (STI); 7. Human Capital Development; 8. Enterprise Development; 9. Infrastructure and Logistics;

and 10. Promotion and Awareness.

This research uses radar charts to assess the state of the Halal ecosystem in each European nation. Radar charts are used to compare and contrast two or more groups by highlighting their similarities and differences across a wide range of characteristics (Model Systems Knowledge Translation Center, 2012). In most cases, the criteria or elements being compared will be relatively different from one another. In this study, for example, evaluations vary from 0 to 10, hence the scores given to each element are roughly calibrated. If a country gets a higher score, it means the country did well on that particular metric. All component and characteristic scores radiate outward from a central zero. Factor ratings from each subgroup are added together to provide a "radar image" or "spider web" of the whole (Lechner & Weidmann, 2015).

3. Result and discussion

Findings

The survey was conducted between August 2022 to October 2022 and garnered 336 responses, achieving the intended target of 300 responses. The survey generated 219 responses from the Asian region, 57 responses from the European region, 38 responses from the African region, 15 responses from the American region, and 7 responses from the Australian region. The survey showcased the 10-point Halal Ecosystem indicators as a basis for analyzing the country's readiness when it comes to developing its Halal Ecosystem.

Table 1. Halal Ecosystem Indicators - Europe

Country	INT	GOV	PP	DA	INC	STI	HCD	ED	IL	AP	AVG
Turkey	100.00%	100.00%	100.00%	66.67%	0.00%	28.57%	33.33%	40.00%	30.00%	100.00%	59.86%
Bosnia and Herzegovina	100.00%	100.00%	0.00%	0.00%	100.00%	28.57%	100.00%	40.00%	10.00%	100.00%	57.86%
Russia	100.00%	100.00%	0.00%	100.00%	0.00%	28.57%	66.67%	40.00%	30.00%	100.00%	56.52%
Ireland	100.00%	100.00%	25.00%	66.67%	0.00%	0.00%	100.00%	60.00%	20.00%	33.33%	50.50%
Poland	33.33%	100.00%	0.00%	0.00%	0.00%	14.29%	100.00%	0.00%	40.00%	100.00%	38.76%
Switzerland	66.67%	100.00%	0.00%	0.00%	0.00%	14.29%	66.67%	20.00%	40.00%	0.00%	30.76%
United Kingdom	33.33%	0.00%	25.00%	0.00%	0.00%	28.57%	100.00%	20.00%	10.00%	66.67%	28.36%
Netherlands	66.67%	0.00%	0.00%	33.33%	0.00%	14.29%	66.67%	0.00%	30.00%	66.67%	27.76%
Belarus	100.00%	0.00%	25.00%	0.00%	0.00%	0.00%	66.67%	0.00%	10.00%	66.67%	26.83%
Spain	66.67%	100.00%	0.00%	33.33%	0.00%	0.00%	33.33%	0.00%	20.00%	0.00%	25.33%
France	66.67%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	66.67%	24.33%
Sweden	33.33%	100.00%	0.00%	0.00%	0.00%	0.00%	33.33%	0.00%	20.00%	0.00%	18.67%
Bulgaria	66.67%	0.00%	0.00%	33.33%	0.00%	28.57%	0.00%	0.00%	0.00%	0.00%	12.86%
Italy	33.33%	0.00%	0.00%	0.00%	0.00%	0.00%	33.33%	0.00%	0.00%	33.33%	10.00%
Germany	66.67%	0.00%	0.00%	0.00%	0.00%	14.29%	0.00%	0.00%	0.00%	0.00%	8.10%
Portugal	66.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	7.67%

Belgium	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	66.67%	6.67%
Average (Europe)	64.71%	52.94%	10.29%	19.61%	5.88%	11.76%	47.06%	12.94%	16.47%	47.06%	28.87%

Source: author's calculation

This report particularly showcases the Halal Ecosystem development of the European countries. The ten indicators analyzed were: 1. Integrity (INT); 2. Governance (GOV); 3. Planning and Policies (PP); 4. Data & Analytics (DA); 5. Incentives (INC); 6. Science, Technology and Innovation (STI); 7. Human Capital Development (HCD); 8. Enterprise Development (ED); 9. Infrastructure and Logistics (IL); and 10. Awareness & Promotion

(AP). Table 1 shows that the countries with the strongest Halal Ecosystem indicators are Turkey, Bosnia, and Russia with indicator average scores of 59.86%, 57.86%, and 56.52%. Overall, Turkey has strong indicators except for Incentives and STI while Bosnia shows room for improvement in Policy & Planning, Data & Analytics, and Infrastructure & Logistics (see Table 1).

Table 2. Halal Ecosystem Indicators - Top 15

No.	Country	INT	GOV	PP	DA	INC	STI
1	Malaysia	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
2	Indonesia	66.67%	100.00%	100.00%	66.67%	100.00%	100.00%
3	Brunei	100.00%	100.00%	100.00%	100.00%	0.00%	100.00%
4	Thailand	100.00%	100.00%	100.00%	33.33%	100.00%	71.43%
5	Pakistan	100.00%	100.00%	25.00%	33.33%	100.00%	85.71%
6	Australia	66.67%	100.00%	50.00%	100.00%	0.00%	71.43%
7	UAE	100.00%	100.00%	25.00%	33.33%	0.00%	14.29%
8	Turkey	100.00%	100.00%	100.00%	66.67%	0.00%	28.57%
9	Saudi Arabia	66.67%	100.00%	100.00%	100.00%	0.00%	0.00%
10	Bosnia and Herzegovina	100.00%	100.00%	0.00%	0.00%	100.00%	28.57%
11	Republic of Korea	66.67%	100.00%	25.00%	0.00%	100.00%	71.43%
12	Russia	100.00%	100.00%	0.00%	100.00%	0.00%	28.57%
13	Uzbekistan	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%
14	China	66.67%	100.00%	75.00%	33.33%	100.00%	14.29%
15	Singapore	66.67%	100.00%	75.00%	66.67%	0.00%	57.14%

Source: author's calculation

Tabele 2. Continued

No.	Country	HCD	ED	IL	AP	AVG
1	Malaysia	100.00%	100.00%	70.00%	100.00%	97.00%
2	Indonesia	66.67%	100.00%	70.00%	100.00%	87.00%
3	Brunei	100.00%	100.00%	40.00%	100.00%	84.00%
4	Thailand	100.00%	60.00%	70.00%	100.00%	83.48%
5	Pakistan	66.67%	20.00%	50.00%	100.00%	68.07%
6	Australia	100.00%	0.00%	60.00%	100.00%	64.81%
7	UAE	100.00%	80.00%	90.00%	100.00%	64.26%
8	Turkey	33.33%	40.00%	30.00%	100.00%	59.86%
9	Saudi Arabia	66.67%	80.00%	10.00%	66.67%	59.00%
10	Bosnia and Herzegovina	100.00%	40.00%	10.00%	100.00%	57.86%
11	Republic of Korea	66.67%	0.00%	40.00%	100.00%	56.98%
12	Russia	66.67%	40.00%	30.00%	100.00%	56.52%
13	Uzbekistan	33.33%	20.00%	40.00%	66.67%	56.00%
14	China	100.00%	20.00%	10.00%	0.00%	51.93%
15	Singapore	66.67%	0.00%	10.00%	66.67%	50.88%

Source: author's calculation

Countries like Malaysia, Indonesia, and the United Arab Emirates have invested heavily in

expanding their Halal ecosystem, propelling them to the top of the global Halal business and creating massive domestic markets. Governments have been successful in creating a robust and comprehensive ecosystem that includes policy and legislation, human capital, science, technology, innovation, awareness promotion, incentives, infrastructure and logistics, data and analytics, as well as integrity and governance, all of which contribute to a favorable setting for industry growth, which in turn boosts employment, trade, and investment. Amongst all the countries that participated in the questionnaire, the Halal Ecosystems of Turkey

and Bosnia are in the top ten (number 8 and 10 respectively), while Russia's is in the top 15 (number 12). Despite being non-Muslim majority countries, both Thailand and Australia have stronger Halal Ecosystem indicators on average compared to both Turkey and Bosnia which are Muslim-majority countries. This is due to their longstanding experience in developing their Halal industry. The success stories of non-Muslim majority countries like Thailand, Australia, South Korea, China, and Singapore should be the benchmark for European countries in terms of developing their Halal Ecosystems in the future.

Table 3. Halal Ecosystem Indicators: Europe vs Other Countries

Region	INT	GOV	PP	DA	INC	STI	HCD	ED	IL	AP	AVG
Europe	64.71%	52.94%	10.29%	19.61%	5.88%	11.76%	47.06%	12.94%	16.47%	47.06%	28.87%
America	49.51%	13.24%	2.57%	4.90%	1.47%	6.51%	11.76%	3.24%	6.62%	28.43%	12.83%
Asia	67.95%	80.77%	40.38%	41.03%	26.92%	28.02%	44.87%	35.38%	30.77%	71.80%	46.79%
Australia	83.34%	50.00%	25.00%	50.00%	0.00%	35.72%	66.67%	0.00%	35.00%	66.67%	41.24%
Africa	43.86%	31.58%	10.53%	17.54%	0.00%	11.28%	14.04%	10.53%	11.58%	36.84%	18.78%
All Countries	59.90%	56.52%	22.46%	27.54%	11.59%	18.43%	36.23%	19.71%	21.01%	52.17%	32.56%
Others (Excluding Europe)	58.82%	56.86%	26.96%	30.07%	13.73%	21.01%	32.68%	22.35%	22.35%	54.25%	33.91%

Source: author's calculation

On average, the highest indicator average score belongs to the Asian region with 46.79%, followed by the Australian region with 41.24%. The European region has an indicator average score of 28.87%, making it the third-best region above America and Africa. Having said that, there is so much room for improvement regarding the Halal Ecosystem development in

the European region, especially regarding Policy & Planning, Data & Analytics, Incentives, STI, Enterprise Development, and Infrastructure & Logistics. Most European countries have been doing quite well in the aspects of Integrity and Governance due to some level of government support. As most countries have access to certain funds, they also seem to be doing quite well in Awareness & Promotion (see Figure 1).

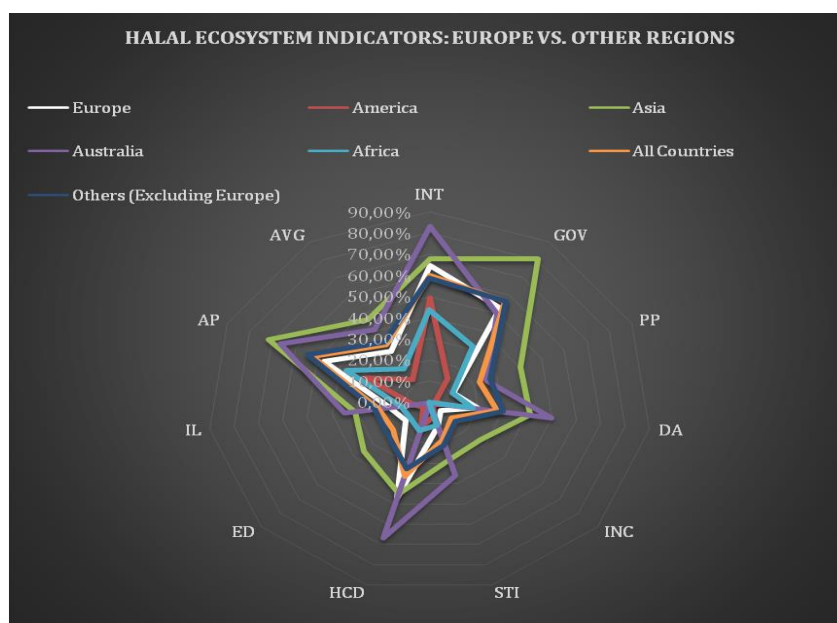


Figure 1. Radar Charts for Halal Ecosystem Indicators: Europe vs. Other Regions

Table 4 Halal Ecosystem Indicators: Europe vs Other Countries

Region	INT	GOV	PP	DA	INC	STI	HCD	ED	IL	AP	AVG
Europe	64.71%	52.94%	10.29%	19.61%	5.88%	11.76%	47.06%	12.94%	16.47%	47.06%	28.87%
Other Countries (Excluding Europe)	58.82%	56.86%	26.96%	30.07%	13.73%	21.01%	32.68%	22.35%	22.35%	54.25%	33.91%
Difference	5.88%	-3.92%	-16.67%	-10.46%	-7.84%	-9.24%	14.38%	-9.41%	-5.88%	-7.19%	-5.04%

Source: author's calculation

As can be seen in the Table above, the European countries are stronger in Integrity and Human Capital Development, but less superior in everything else. The full paper will examine the Halal Ecosystem Indicators of the European countries individually, as well as the Halal Ecosystem Indicators of the European countries as a unit compared to other regions such as Asia, Africa, Australia, and America.

Research limitations/implications

As a baseline for understanding Halal ecosystems, the article examines 17 European nations (along with 52 from other regions). To make the Global Halal Ecosystem Assessment useful in practice, future research should expand to encompass additional European countries, and more parties should be engaged in assessing and improving the data. Data should be updated once a year or twice a year.

4. Practical implications

In addition, this paper is meant to be a useful, applicable, and unbiased resource that can be referred to by nations hoping to improve their Halal Ecosystems through strategic planning and the promotion of Halal commerce through the use of cooperation, strategic alliances, and other similar means. This study has the potential to improve the government's and authority's recommendations about the expansion of Micro SMEs and SMEs, the significance of halal parks, and the priority given to the development of the Halal sector.

Having analyzed these traits will help the Halal industry take off in the selected countries very quickly. With HDC's 10 Global Halal Ecosystem Indicators, the country may better identify and prioritize issues affecting the Halal industry. A well-defined system will also help the country spot other opportunities to strengthen its Halal industry. The end outcome of this will be more sound methods for creating long-term plans in the Halal sector.

5. Conclusion

The purpose of this research to serve as a useful, actionable, and unbiased resource that the selected European countries (countries that participated in the survey) may utilize to inform their long-term strategy for building a Halal ecosystem and easing Halal trade. The study also aspires to identify and map preexisting (decentralized and/or centralized) Halal Ecosystems. The study utilizes the HDC Global Halal Ecosystem Indicators created by Halal Development Corporation (HDC) as a starting point for analyzing the prospects for bolstering global halal ecosystems. This study will pave the way for the development of a Halal Ecosystem strategy applicable to the Halal sectors in the target countries.

We foresee the "Halal Ecosystem" becoming a defining paradigm in worldwide commerce, finance, and economic growth. Since there is a dearth of scholarly literature on halal ecosystems, this paper serves as a vital and useful resource for scholars and students in fields as diverse as economics, business, international development, international relations, corporate communication, and Islamic branding and marketing.

References

1. Dariah, Atih R., Salleh, M. S., Yahaia, M. bin, & Mafruhah, A. Y. (2019). Integrating Dimensions of Sustainable Development Goals (SDGs) Within Umranic Framework. *Journal of Sustainable Development*, 12(6), 82. <https://doi.org/10.5539/jsd.v12n6p82>
2. Dariah, Atih Rohaeti, Salleh, M. S., & Shafiai, H. M. (2016). A New Approach for Sustainable Development Goals in Islamic Perspective. *Procedia - Social and Behavioral Sciences*, 219, 159–166. <https://doi.org/10.1016/j.sbspro.2016.05.001>
3. Dinar Standard. (2022). State of the Global Islamic Economy Report: Unlocking Opportunity. In *State of the Global Islamic Economy Report 2022*.
4. Erwaedy, A., Pardiman, P., Syahril, S., & Andiriyanto, A. (2021). Implementing Halal Industry Management and Environment Conservation Based on Maqashid Sharia. *AL-*

- FALAH: Journal of Islamic Economics*, 6(2), 268. <https://doi.org/10.29240/alfalah.v6i2.3504>
5. Haqqoni, N. S., Aprilia, F. P., & Maulina, I. N. (2020). Awareness Level of Halal Food Products and Healthy Lifestyles for Realizing SDGs (Comparative Study Before and When Covid-19). *Airlangga International Journal of Islamic Economics and Finance*, 3(2), 111. <https://doi.org/10.20473/aijief.v3i2.23876>
 6. Idris, P. S. R. P. H., Musa, S. F. P. D., & Sumardi, W. H. H. (2022). Halal-Tayyiban and Sustainable Development Goals. *International Journal of Asian Business and Information Management*, 13(2), 1–16. <https://doi.org/10.4018/ijabim.20220701.oa9>
 7. Lechner, V., & Weidmann, K.-H. (2015). Visualizing Database-Performance Through Shape, Reflecting the Development Opportunities of Radar Charts. In *Universal Access in Human-Computer Interaction. Access to Today's Technologies*.
 8. Model Systems Knowledge Translation Center. (2012). *Effective Use of Radar Charts*.
 9. Mukhtar, S., Zainol, Z. A., & Jusoh, S. (2018). Islamic Law and Sustainable Development Goals. *Tazkia Islamic Finance and Business Review*, 12(1), 81–99. <https://doi.org/10.30993/tifbr.v12i1.124>
 10. Noor, Z., & Pickup, F. (2017). The role of Zakat in supporting the sustainable development goals. *Baznas and UNDP Brief Series*, May. <http://www.academia.edu/download/53568002/INS-Zakat-English.pdf>
 11. Noordin, N., Noor, N. L. M., & Samicho, Z. (2014). Strategic Approach to Halal Certification System: An Ecosystem Perspective. *Procedia - Social and Behavioral Sciences*, 121, 79–95. <https://doi.org/10.1016/j.sbspro.2014.01.1110>
 12. Shafii, Z., Zubir, S. N., & Rahim, N. F. (2018). Halal Governance and Assurance: A Comparative Study Between Malaysia and Thailand. *International Journal of Islamic Economics and Finance Research*, 1(1), 20–30.
 13. Shaikh, S. A., & Hassan, K. (2018). Where do muslim countries stand on sustainable development goals. *International Symposium Financing for Development*. <https://doi.org/10.26650/B/SS10.2020.017.05>
 14. Yesuf, A. J., & Aassouli, D. (2020). Exploring synergies and performance evaluation between Islamic funds and socially responsible investment (SRIs) in light of the Sustainable Development Goals (SDGs). *Heliyon*, 6(8), e04562. <https://doi.org/10.1016/j.heliyon.2020.e04562>

Benchmarking halal ekosistema evropskih zemalja sa drugim regionima koristeći 10 HDC-vih indikatora halal ekosistema

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Pregledni rad

PODACI O RADU

SAŽETAK

Ključne riječi:

Halal ekosistem, halal lanac nabavke, ekonomski razvoj, halal industrija, halal tržište, halal reputacija, halal integritet

U ovom radu ćemo naglasiti važnost "halal ekosistema" za islamsku ekonomiju. U tu svrhu, provedena je anketa koja ima za cilj da služi kao koristan, efikasan i nepristrasan izvor koji odabrane evropske zemlje (zemlje koje su učestvovala u anketi) mogu koristiti za informisanje o dugoročnoj strategiji izgradnje halal ekosistema i olakšavanja halal trgovine. Studija također ima za cilj identificirati i mapirati postojeće (decentralizovane i/ili centralizovane) halal ekosisteme. Studija koristi HDC Global Halal Ecosystem Indikatore koje je kreirala Halal Development Corporation (HDC) kao polaznu tačku za analizu izgleda za jačanje globalnih halal ekosistema. Predviđamo da će "Halal ekosistem" postati definirajući paradigma u svjetskoj trgovini, finansijama i ekonomskom rastu. Ova studija će utrti put razvoju strategije halal ekosistema koja se može primijeniti na halal sektore u ciljanim zemljama.