

Tourism Competitiveness Performances of the Most Visited Muslim-Majority Countries through Multi-Dimensional Scaling

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ABSTRACT

Competitiveness has become a vital issue for tourism destinations, which provides destinations a high ground to strengthen their positions in the marketplace and benefit more from the positive impacts of tourism, as well as preserving the resources. In this study, tourism and travel competitiveness performances of the ten most-visited Muslim-majority countries are examined comparatively by using the data issued by World Economic Forum's Competitiveness Indexes. The study aims to determine the power and the directions of the sub-competitiveness factors as well as reveal the differences among those countries, benefiting from both Multidimensional Scaling Analysis and ANOVA, which are employed together. Findings indicate that Infrastructure Index shows the highest correlation with the Overall Competitiveness Index, followed by the T&T Policy-Enabling Condition index. On the other hand, the correlations between Enabling Environment and T&T Policy Enabling Conditions and, Enabling Environment and Natural-Cultural Resources is found to be negatively correlated which provides a vital issue for practitioners.

ملخص

أصبحت القدرة التنافسية مسألة حيوية للوجهات السياحية، مما يوفر للوجهات أرضية عالية لتعزيز موقعها في السوق والاستفادة بشكل أكبر من الآثار الإيجابية للسياحة، فضلاً عن الحفاظ على الموارد. وفي هذه الدراسة، يتم استكشاف الأداء التنافسي للسياحة والسفر في الدول العشر

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الأكثر زيارة ذات الأغلبية المسلمة بشكل مقارن باستخدام البيانات الصادرة عن مؤشرات التنافسية الصادرة عن المنتدى الاقتصادي العالمي. وتهدف إلى تحديد قوة واتجاهات عوامل التنافسية الفرعية وكذلك الكشف عن الاختلافات بين تلك البلدان، والاستفادة من كل من تحليل القياس متعدد الأبعاد وتحليل التباين الأحادي (ANOVA)، اللذين يتم توظيفهما معا. وتشير النتائج إلى أن مؤشر البنية التحتية يظهر أعلى ترابط مع مؤشر التنافسية العامة، يليه مؤشر الظروف التمكينية لسياسات السياحة والسفر. وفي المقابل، تم العثور على العلاقات بين البيئة التمكينية وشروط تمكين سياسات السياحة والسفر والبيئة التمكينية والموارد الطبيعية الثقافية لتكون مترابطة بشكل سلبي، الأمر الذي يوفر مسألة جوهرية للممارسين.

ABSTRAITE

La compétitivité est devenue une question vitale pour les destinations touristiques. Elle offre aux destinations une base solide pour renforcer leur position sur le marché et profiter davantage des impacts positifs du tourisme, tout en préservant les ressources. Dans cette étude, les performances en matière de compétitivité du tourisme et des voyages des dix pays à majorité musulmane les plus visités sont examinées de manière comparative en utilisant les données publiées par les indices de compétitivité du Forum économique mondial. L'étude vise à déterminer la puissance et les directions des facteurs de sous-compétitivité ainsi qu'à révéler les différences entre ces pays, en bénéficiant à la fois de l'analyse d'échelle multidimensionnelle et de l'ANOVA, qui sont utilisées conjointement. Les résultats indiquent que l'indice d'infrastructure présente la corrélation la plus élevée avec l'indice de compétitivité globale, suivi de l'indice des conditions favorables à la politique de T&T. D'autre part, les corrélations entre l'environnement favorable et les conditions favorables de la politique T&T, ainsi que l'environnement favorable et les ressources naturelles et culturelles, sont négativement corrélées, ce qui pose un problème vital aux praticiens.

Keywords: Tourism Competitiveness, Religion, Muslim-Majority Countries, WEF Competitiveness Report, Multi-Dimensional Scaling

JEL Classification: Z32, L83, O14,

1. Introduction

The success of tourism destinations depends on their ability to compete with counterparts. The enormous growth in the tourism and travel industry through tourism revenues, tourism investments, and tourist numbers has resulted in intense competition in the marketplace. Hence, competitiveness is attributed as a vital issue to keep up with today's fierce

environment (Augustin & Liaw, 2017). Along with a very large number of variables that affect the destination competitiveness (Crouch, 2011: 40), it involves dimensions such as environmental sustainability (Mihalic, 2000), safety and security, technological development (Ozcan, 2018), qualified human resource capacity (Dwyer & Kim, 2003), market ties and variety of tourism activities in the destination (Crouch & Ritchie, 1999). Competitiveness plays an important role for destinations through preserving natural and cultural resources, creating high-skilled job demand, enhancing residents' quality of life, sustaining a positive image of the destination, and providing value-oriented products to the tourism market. Therefore, competitiveness has become a significant phenomenon in tourism research as well as in practical implications (Dogru et al., 2021).

Different indicators has been developed to measure destination competitiveness and to compare sub-items that shape the overall competitiveness level (Olczyk, 2016). World Economic Forum's Travel&Tourism Competitiveness Index (TTCI) is one of the most known and widely used among them. The index measures competitiveness at the country level and provides comprehensive information regarding policies leading to the competitive development of tourism in the country (Augustin & Liaw, 2017: 1296). In this regard, the index informs countries to focus on their weaknesses to benefit more from the positive impacts of the tourism industry.

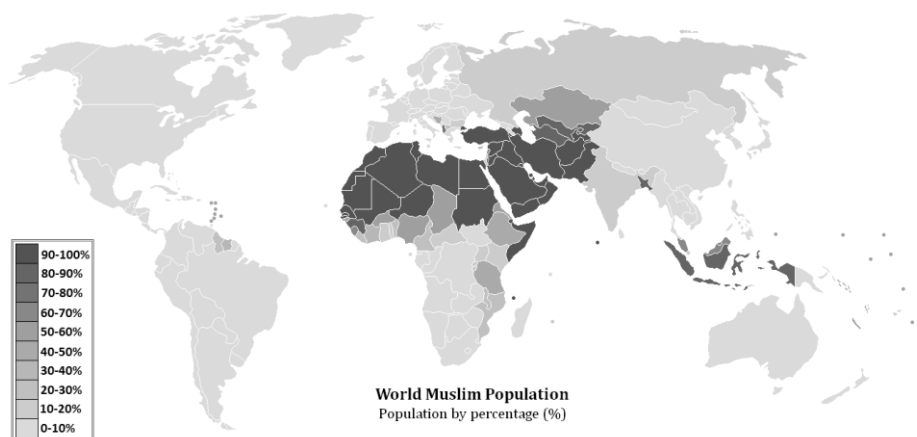
Religion and religiosity are fairly important factors impacting public policy and individual behavior and lifestyle. Many studies show that (Poria et al., 2003; Rehman & Askari, 2010) religion is one of the main agents that forms the cultures, lifestyle, perceptions, evaluations, and attitudes. Religion may also affect tourists' destination choices (Ghani, 2019: 27). Nevertheless, there are limited studies that research the link between religion and tourism supply conditions (Zamani-Farahani & Henderson, 2010; Nazmfar et al., 2019). The association of religion with tourism in the literature is bonded as large as faith and pilgrimage tourism (Poria et al., 2003; Giovine & Choe, 2019). Nevertheless, the role of religion on the tourism supply conditions, i.e. policy, planning, and implementation that shape the competitiveness ability, is not discussed and researched enough in the literature. Therefore, this study focusing on tourism competitiveness concerning the first ten most visited Muslim-majority countries listed as Turkey, Malaysia, United Arab Emirates,

Saudi Arabia, Indonesia, Bahrain, Morocco, Egypt, Tunisia, and Kazakhstan (World Bank, 2020) are examined in terms of their travel and tourism competitiveness level, using WEF's competitiveness report. Besides, we aim to find out competitiveness positions and features of the Muslim-majority countries and to cluster them according to their similarities and discrepancies comparatively between 2008 through 2019. Moreover, revealing the directions of the relations between sub-indexes of competitiveness edge for the most visited Muslim-majority countries is another important aspect of the research.

2. Literature Review

Religion can be linked with tourism as a supply-side in terms of macro and micro levels. Macro-level can be framed as policy and planning issues, the types and content of the products such as casino tourism, halal tourism, etc., and some rules for women tourists or prioritization of the tourism and relationship between the tourist and local communities. Religion influences the supply side on a micro level, such as the types and contents of hotel services, foods, drinks, ingredients, and service procedures. Nonetheless, in some countries, tourism is discouraged due to the influence of beliefs and local traditions (Uriely & Reichel, 2000; Poria et al., 2003). Religion is also linked with the attractions and environment in an area, stated as pull factors in tourism such as temples, churches, monuments, mosques, ceremonies, landscape, and other rituals.

Muslim and Islamic words or descriptions are sometimes used for the same meaning. The Islamic world can be used to mean three different aspects related to people who practice Islam, cultural meaning and geographical meaning, respectively. On the religious meaning, the Islamic world refers to Muslims and individuals who believe and practice Islam. In terms of culture, it refers to Islamic civilization. As the geographic meaning, refers to the countries Muslims make up the majority of the country's population. Islam is one of the widely practiced religions with a population of over 1.8 billion people across the world, representing 24.1% of 7.3 billion (2015), nearly one out of every four people in the World (Jafari & Scott, 2014; WorldAtlas, 2021).

Map 1: World Distribution of Islam

Source: Wikimedia, 2021

There are fifty-seven states as members in the Organization of Islamic Cooperation (OIC) spread over four continents (Organization of Islamic Cooperation [OIC], 2021). Tourism in Islamic countries with few exceptions is still in its infancy phase, the majority of them thus ignored the economic contribution of the tourism industry (Mansfeld & Winckler, 2008). Nevertheless, some of the Muslim-majority countries are fairly popular in world tourism markets such as Turkey, Malaysia, United Arab Emirates, and Egypt due to designating the tourism industry as an important sector for the country and adapting to the world tourism market by promoting their natural and cultural resources. The majority of markets of these countries are based on European and neighborhood countries except Saudi Arabia because of its holy places attracting just Muslim pilgrimages all around the world.

2.1. Tourism Performance of the ten Most-Visited Muslim-Majority Countries

Turkey is the most popular tourist destination among the Muslim-majority countries and it was ranked as the 6th most visited country in the world with its 51 million visitors in 2019 (UNWTO, 2020). Turkey's main advantages could be listed as being a secular country, having long sandy coasts by the Mediterranean Sea, geographical location between two continents, rich cultural and historical resources, and well-developed tourism institutions and infrastructure. Some of the main challenges the

country faces recently are increased security problems, a low level of prioritizing of travel and tourism, and sustainability issues. In Turkey, the total contribution of travel and tourism to GDP was 11.3% and the total contribution of travel and tourism to employment was 2.6 million jobs which cover 9.4% of total employment in 2019 (World Travel Tourism Council [WTTC], 2020).

Malaysia is spread out at a peninsula that is located between the South China Sea and Bengal Bay of the Indian Ocean. The country has rich cultural and natural diversity and is known for having hospitable local people. Although the Malaysian state declares Islam as the official state religion, the government spends great effort to balance religious rules and tourism industry needs. Therefore, the country is considered a comparatively moderate and tourism-friendly destination. Nevertheless, gender inequality, insufficient coastal resource management, and a low level of environmental sustainability can be expressed as the main challenges. In the country, the total contribution of travel and tourism was 11.5% of GDP and, the total contribution of travel and tourism to employment was 2.2 million jobs which generates 11.8% of total employment in 2019 (Henderson, 2003; Malaysia, 2020; WTTC, 2020).

Like most countries in the Middle East, United Arab Emirates (UAE) has been heavily dependent on oil resources which contributed to the 30% of UAE's GDP with a fairly rich country concerning a high per capita income. The tourism industry mostly benefited from the country's developed infrastructure. Abu Dhabi and Dubai as the locomotives of the UAE have been established as a wonderland on the earth with countless attractions from safaris in the desert to the biggest shopping mall in the world. Nowadays, UAE has been one of the fastest-growing tourist destinations including sun, sea, sand, sports, shopping, etc. with astonishing luxury hotels and restaurants. The total contribution of travel and tourism was 11.9% of GDP and, the total contribution of travel and tourism to employment was 745 thousand jobs which generate 11.1% of total employment in 2019 (Henderson, 2006; Michael et al., 2019; WorldAtlas, 2020; WTTC, 2020).

Saudi Arabia is located in the Arabian Peninsula which is declared as an Islamic state. Thus, it directly affect all forms of tourism issues such as development of tourism policy, and planning and destination management and marketing practices. Saudi Arabia is the birthplace of Islam and has

many holy places mainly located in Mecca and Medina which millions of pilgrimages visit every year. The main advantages of the country include some ancient sites, the natural scenery of desert, mountains, valleys, and Red Sea beaches and coastline. Some of the barriers that slow down tourism development are stated as strict rules and opposition to international tourism except hajj tourism and some strict rules stemmed from the Sharia law on clothing and drinking for foreign tourists. Besides, lack of international openness and the low level of environmental sustainability is another weakness of the country (Seddon & Khoja, 2003: 957; Zamani-Farahani & Henderson, 2010: 79). The total contribution of travel and tourism was 9.5% of GDP and, the total contribution of travel and tourism to employment was 1.4 million jobs which generates 11.2% of total employment in 2019 (WTTC, 2020).

Table 1: Statistics of the Ten Most Visited Muslim-Majority Countries

Countries	* Inbound Tourist Numbers (000) (2019)	* International Tourism Revenue (\$ Millions) 2019	** UNESCO Cultural Heritage Sites (2019)	** UNESCO Natural Heritage Sites (2019)	** UNESCO Mixed Heritage Sites (2019)	*** Population 2019 (Million)	**** Muslim Population %
Turkey	51,747	42,350	16	-	2	83,4	99.8
Malaysia	26,101	22,199	2	2	-	31,9	61.3
United Arab Emirates	21,553	38,413	1	-	-	9,7	76.0
S. Arabia	20,292	19,849	5	-	-	34,2	100
Indonesia	16,107	18,404	4	4	-	270,6	87.2
Morocco	13,109	10,013	9	-	-	36,4	99.0
Egypt	13,026	14,256	6	1	-	100,3	90.0
Bahrain	11,061	3,860	2	-	-	1,6	73.7
Tunisia	9,429	2,683	7	1	-	11,6	99.1
Kazakhstan	8,515	2,922	3	2	-	18,5	70.2
Total	190,940	174,949	55	10	2	598,2	
Share of the world	8%	9%	6,5%	4,7%	5,2%	7,7%	

Sources: *World Bank, 2020; **UNESCO, 2020; ***United Nations, 2020; ****World Fact Book, 2020

The Kingdom of Bahrain, an island country, is a small Arab country governed by a monarchy located in the Persian Gulf situated between the Qatar peninsula and the North-Eastern Coast of Saudi Arabia. Despite its small geographical size, the tourism performance of Bahrain is quite impressive in terms of tourist arrivals and tourism receipts. Tourism is stated as a priority sector in the new development strategy. The major advantages of the country are highly developed shopping facilities in a tax-free environment, preserved cultural symbols and heritage, a relatively liberal and open society, being a relatively safe destination, and well-established tourism infrastructure. Major threats for tourism development are strong competition in the region, deterioration of the image of Arabs in the Western tourism markets, non-differentiated of the tourism products from region destinations, over-dependence on a single market that is largely dependent on Saudi market (26%), and some bans on selling and consumption in the hotel and restaurants (Mansfeld & Winckler, 2008, 237-248). The total contribution of travel and tourism was 13.3% of GDP and, the total contribution of travel and tourism to employment was 98.7 thousand jobs which generates 15% of total employment in 2019 (WTTC, 2020).

In Morocco, tourism is an important industry and the country is fairly keen to promote tourism development. The main products of the country attract tourists that are seaside resorts, desert routes, and cultural heritages. Besides, recently health tourism has been also developing in the country. Morocco developed a strategic plan titled “A Vision 2010” to attract over ten million tourists. In this plan, the tourism sector is seen as one of the main pillars of the economy. After its successful implementation, “Vision 2020” was extended and enhanced as a new version of the “Vision 2010” project has established (Garrido et al., 2016). The advantages of the country are underlined as 3,500 kilometers of attractive the Atlantic Ocean and the Mediterranean Sea coastline, mountains, cultural heritage, rich regional cuisine, positive image in the Western tourism markets, relatively stable political environment, and pleasant climate. Lack of qualified human resources and labor market, health and hygiene issues are remarked as the main weaknesses of tourism in the country (Yasin et al., 2011; Bouzahzah & El Menyari, 2013; Moroccan National Tourism Office, 2020). The total contribution of travel and tourism was 12.0% of GDP and, the total contribution of travel and tourism to employment was 1.3 million jobs which generates 12.4% of total employment in 2019 (WTTC, 2020).

Egypt has been a popular destination since the ancient ages. The country has a long and rich history, therefore, it is very popular in the world tourism market. Tourism in Egypt is largely based on archeological resources such as pyramids as well as natural and cultural resources like the Red Sea and deserts (Shalan, 2005). Despite its strengths, the country has not been able to prevent fluctuations in tourist demand, due to the instability and conflicts in the region (Gray, 1998). An instability political environment, lack of safety and security, low level of the business environment, poor tourism infrastructure and service quality, lack of qualified human resources, and environmental sustainability are the challenges for the tourism development in the country. The total contribution of travel and tourism was 9.3% of GDP and, the total contribution of travel and tourism to employment was 2.4 million jobs which generates 9.7% of total employment in 2019 (WTTC, 2020).

Indonesia is a Muslim majority country, located mainly in Southeast Asia with some territories in Oceania. It is the largest archipelagic country in the world with more than 17,000 islands in total, about 6,000 of them are inhabited which are scattered over both sides of the equator and extending 5,110 km from east to west and 1,888 km from north to south. The country has natural resources with a unique combination of a tropical climate and thousands of islands with a long stretch of beaches (one of the longest coastlines in the world) and rich ethnic diversity and local cultures which creates huge sorts of tourism opportunities. Nevertheless, industrialization and urbanization for economic growth are the main threats that affect these sensitive areas. Inbound tourism is a significant part of the economy and is expected to be one of the major sectors. But political and economic instability impacts the tourist arrivals negatively (Walpole and Goodwin, 2000; Henderson, 200; Sugiyarto et al., 2003; Country Studies, 2021). The total contribution of travel and tourism was 5.7% of GDP and, the total contribution of travel and tourism to employment was 12.5 million jobs which generates 9.7% of total employment in 2019 (WTTC, 2020).

Tunisia is located in North Africa which is in the Maghreb and considers Islam as the official state religion. Tunisia has implemented fairly aggressive tourism investment policies to encourage foreign private investment and developed some political and economic reforms to be a competitive tourism destination and drawn up a new strategy in 2007 to expand, promote and diversify tourism products such as tourism in the

desert, cultural and heritage tourism, golf and health tourism. The suitable Mediterranean coastline and climate, history, and culture are the core of the Tunisian tourism product. Tunisian tourism was drastically affected by some terrorist attacks in 2015 and tourism receipts registered a decline of 47.6%. Political instability and safety and security issues at both regional and local levels are the main obstacles in the country (Poirier, 1995; Bouzahzah & El Menyari, 2013; Tourism Tunisia, 2020). The total contribution of travel and tourism was 13.9% of GDP and, the total contribution of travel and tourism to employment was 373.5 thousand jobs which generate 10.8% of total employment in 2019 (WTTC, 2020).

Kazakhstan, the largest of the Central Asian countries and the ninth-largest in the world, spread to stretches from the lower sides of the Volga River eastward to the foot of the Altai Mountains and from the Western Siberian lowland southward to the Kyzyl-Kum Desert. Kazakhstan's geography has been on the route of the Silk Road since ancient times and a significant number of heritages have survived on the territories of the country. After disintegration from the Soviet Union in 1991, the government tried to reconstitute the national traditions and renaissance of Kazakh nomadic folklore to restore eroded identity and image in the Soviet Union. The government positioned the country as a resourceful, stable, and multiethnic country on a crossroad between West and East, combining diverse cultures and beliefs (Kantarci, 2007a; Kantarci, 2007b; Marat, 2009; Tiberghien et al., 2014; Britannica, 2020). The development of the tourism industry in Kazakhstan started with organized trips so-called “shopping tours” from Almaty, the former capital, to Turkey, China, Emirates, and Pakistan” (Garkavenko & Tiberghien, 2014: 293). Unique nomadic culture, ancient Silk Road and rich historical heritage, unique natural assets, business environment and opportunities, diverse and rich ethnic traditions, and relatively stable political environment are the main advantages and attractions of Kazakh Tourism. The total contribution of travel and tourism was 5.2% of GDP and, the total contribution of travel and tourism to employment was 430 thousand jobs which generate 4.8% of total employment in 2019 (WTTC, 2020).

3. Data and Methodology

We investigated the ten most-visited Muslim-majority countries according to the data issued by the World Economic Forum (WEF) between 2008 through 2019. Those countries, in alphabetical order, are

called Bahrain, Egypt, Indonesia, Kazakhstan, Malaysia, Morocco, Saudi Arabia, Tunisia, Turkey, and the United Arab Emirates. The shorthand forms of the countries are denoted by B, E, I, K, M, MO, SA, T, TR, and UAE, respectively. The data composes of four main indexes and one compound index called the overall index, which is a weighted representation of the four main indexes that are called the Enabling Environment Index composing of five attributes, T and T Policy-Enabling Conditions Index composing of four attributes, the Infrastructure Index consisting of three attributes and the Natural and Cultural Resources Index consisting of two attributes. Determinants of the competitiveness and its sub-indexes are shown in Table 2 below.

Table 2: Determinants of Competitiveness Index

Enabling Environment	T&T Policy and Enabling Conditions	Infrastructure	Natural and Cultural Resources
<ul style="list-style-type: none"> ▪ Business Environment ▪ Safety and Security ▪ Health and Hygiene ▪ Human Resources and Labor Market ▪ ICT Readiness 	<ul style="list-style-type: none"> ▪ Prioritization of Travel & Tourism ▪ International Openness ▪ Price Competitiveness ▪ Environmental Sustainability 	<ul style="list-style-type: none"> ▪ Air Transport Infrastructure ▪ Ground and Port Infrastructure ▪ Tourist Service Infrastructure 	<ul style="list-style-type: none"> ▪ Natural Resources ▪ Cultural Resources and Business Travel

When the data is compiled, we encountered an issue of the altered data structure since the WEF changed the recording methodology after 2011 so the data structure in 2013 and on is not the same as the previous ones. Hence, we adapted the data reported in 2011 and before the new data structure. Besides, the data for Tunisia in 2013 was fully missing. Hence, we employed the Expected Maximization (EM) algorithm to predict them by using the SPSS 24.0 version, so the missing values were substituted by the outputs of the EM algorithm.

4. Empirical Results

We start with the analysis calculating the correlations between the sub-indexes. The results are presented in Table 3 below.

Table 3: Correlations between Indexes

Indexes	Overall Index	Enabling Environment Index	TT Policy-Enabling Conditions Index	Infrastructure Index	Natural-Cultural Resources Index
Overall	1	0.304	0.529	0.752	0.483
Enabling Environment Index		1	-0.371	0.613	-0.351
TT Policy-Enabling Conditions Index	S	S	1	-0.07	0.410
Infrastructure Index	S	S	S	1	0.021
Natural-Cultural Resources Index	S	S	S	S	1

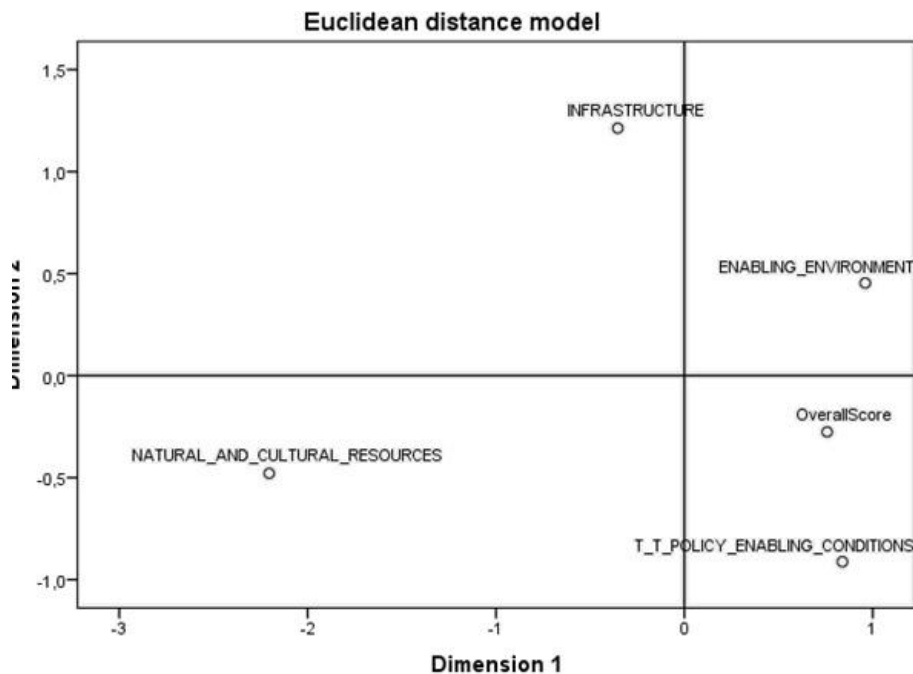
S represents symmetry. Bold numbers denote statistically significant correlations at the 0.05 significance level.

The Overall index is correlated with all four indexes. While the highest correlation is 0.752 with the Infrastructure Index, the lowest correlation is 0.304 with the Enabling Environment Index. On the other hand, the correlation coefficients between Enabling Environment and T&T Policy-Enabling Conditions and Enabling Environment and Natural-Cultural Resources are -0.371 and -0.351, respectively. What they imply is that they have the opposite relations with the Enabling Environment Index. In other words, as long as the Enabling Environment index increases for the countries, both T&T Policy-Enabling and Natural-Cultural Indexes tend to decrease. Also, some correlation coefficients are found statistically insignificant between indexes, which are T and T Policy Enabling Conditions-Infrastructure and Infrastructure-Natural and Cultural Resources being -0.07 and 0.021, respectively.

The multivariate statistical method called Multi-Dimensional Scaling (MDS) is conducted to display those indexes on a two-dimensional graph. By doing so, how similar those indexes are and how they are related to the Overall Index can be exhibited graphically to provide a broader perspective with understanding the structure of the data in general. Multi-Dimensional Scaling is a multivariate statistical method used for

displaying high dimensional data on either a two-dimensional or three-dimensional graph to examine the similarities or dissimilarities among observations or variables by keeping in mind that whenever high dimension is represented in either two or three dimensions, the loss of information should occur and this loss is expected to be as little as possible. The loss of information is measured by a statistic called stress value whose values less than 0.05 indicate a good fit for the original multidimensional data. The MDS employs various distance measures such as Euclidean Distance, Minkowski Distance, and so on to locate the variables or objects in either a two- or three-dimensional graph. Thus, objects or variables on a graph are assessed concerning distances that existed between them. In other words, assessments are conducted based on either similarity or dissimilarity. If the objects/variables are closer to each other, they are thought of as similar objects. Otherwise, they are called dissimilar (Tinsley & Brown, 2000). Figure 1 depicts the relation between indexes.

Figure 1: The Representation of the Five Indexes on a Two-Dimensional Graph



The generated MDS is composed of two dimensions where each dimension consists of two indexes. While Dimension 1 is represented by both T and T Policy-Enabling Conditions and Natural-Cultural Resources, Dimension 2 is characterized by both Infrastructure and Enabling Environment. The location of the Overall index close to the origin of the graph implies that it is almost represented equally by the two dimensions. The stress value, denoting how much information is lost when high dimensional data is shrunk to a lower dimension, for example, from 5 to 2 in our case, is 0.03864, which is less than 0.05 and indicates a good fit. Moreover, this representation can also be validated by running a factor analysis method with varimax rotation. The results are tabulated in Table 4.

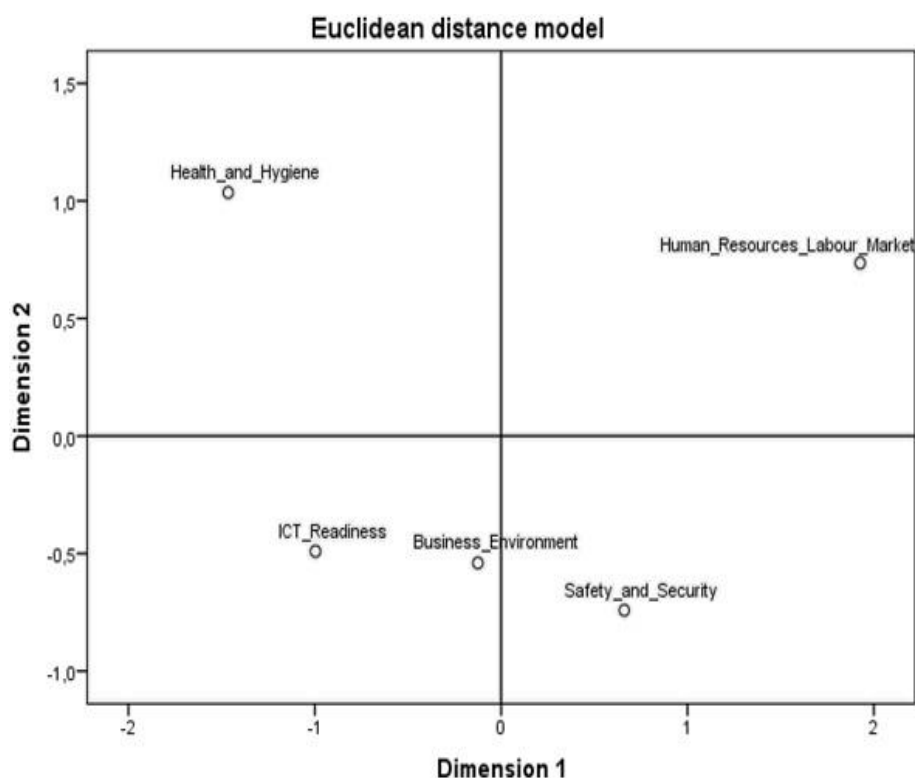
Table 4: Factor Analysis Results of the Five Indexes

	Factor 1	Factor 2
Overall	0.759	0.638
Enabling Environment	0.801	-0.470
Infrastructure	0.945	0.070
T&T Policy	-0.024	0.842
Natural-Cultural Resources	-0.017	0.816

As Table 4 depicts, the Overall index with very close factor loadings in both factors, which are 0.759 and 0.638, are represented by the two factors called Factor 1 and Factor 2, respectively. While the Enabling Environment and Infrastructure indexes are represented by Factor 1 (Dimension 1 by the MDS), the T and T Policy-Enabling Conditions and Natural-Cultural Resources indexes are characterized by Factor 2 (Dimension 2 by the MDS). The total variance explained is 82.41 percent, which is statistically high.

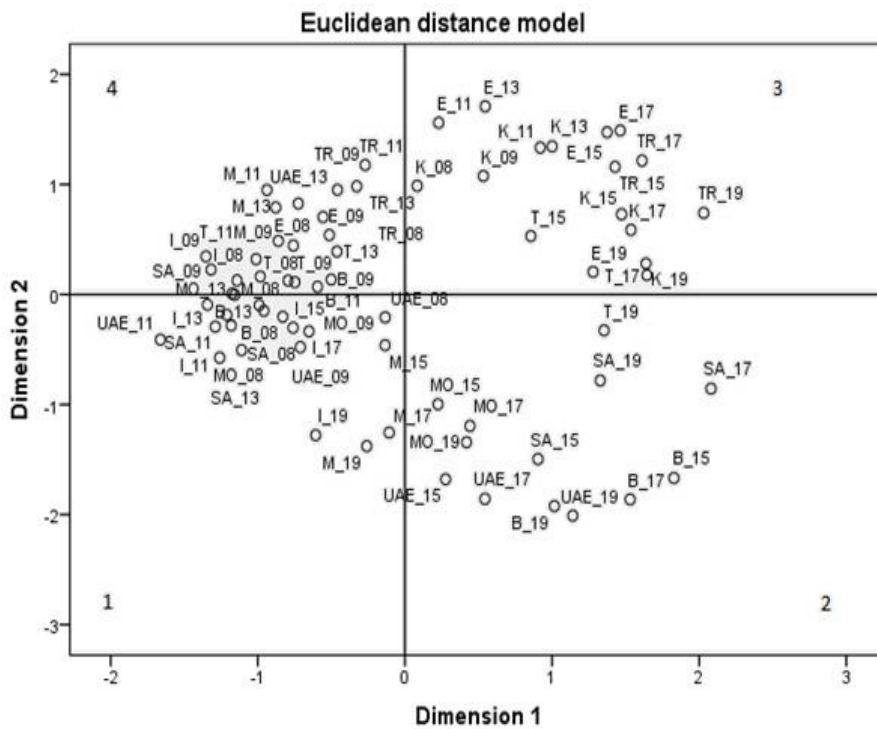
When the Enabling Environment Index is a concern, it composes of five attributes. The representation of them on a two-dimensional graph generated by the MDS is presented in Figure 2. The stress value is 0.0023, which indicates a good fit. Figure 2 depicts the locations of the five attributes that compose the Enabling Environment Index.

Figure 2: The Representation of the Attributes of the Enabling Environment Index



While Dimension 1 is represented by the attributes of ICT-Readiness, Business Environment, and Safety-Security, Dimension 2 is characterized by the attributes of Health-Hygiene and Human Resources Labor Market. When the countries are displayed on a two-dimensional graph for each index assigning a title to each dimension is important since the interpretations of the locations of the countries should be provided concerning those dimensions. Hence, when the ten most visited Islamic countries are a concern for this index, the graph is presented in Figure 3. The MDS generates a graph composed of four regions containing the countries with year tags.

Figure 3: Locations of the Ten Muslim-Majority Countries Concerning the Enabling Environment Index between 2008 Through 2019



As seen from Figure 3 that the two-dimensional graph generated by the MDS has four regions numbered from 1 to 4. While region 1 denotes relatively the worst location concerning two dimensions, region 3 expresses relatively the best location concerning two dimensions. On the other hand, while region 4 denotes the best location concerning dimension 2 (Health-Hygiene and Human Resources Labor Market), region 2 expresses relatively the best location concerning Dimension 1 (ICT-Readiness, Business Environment, and Safety-Security). Stress value, 0.00754, is attained, which indicates a good fit. Even though the locations of the countries in four different regions are generated by a statistical analysis called the MDS, we conduct another statistical test whether these partitions are statistically significant or not. For this purpose, we conduct the ANOVA analysis to compare those four regions. Table 5 denotes the results of the ANOVA for each attribute and the Enabling Environment Index.

Table 5: The Results of ANOVA

Index and Attributes	Enabling Environment Index	Business Environment Attributes	Safety-Security Attributes	Health and Human Hygiene Attributes	Human Resources Labor Market	ICT-Readiness
Significance Level	0.00<0.05	0.00<0.05	0.00<0.05	0.00<0.05	0.00<0.05	0.00<0.05

Table 5 implies that the four regions seen on a two-dimensional graph are statistically significant concerning both the Enabling Environment Index and its attributes that help interpret the locations of the countries. Therefore, we can conclude how those countries evolve between 2008 through 2019.

The objective of the research is to provide the best and worst performances of the ten most visited Islamic countries concerning those indexes between 2008 through 2019, which covers all available data since its dissemination.

It is observed from Figure 3 that Kazakhstan's performance concerning the Enabling Environment Index represented by two dimensions had been in a steady condition and relatively the best one among the countries since 2008 and it differed very much from the rest in this regard. On the other hand, Indonesia between 2011 through 2019 had relatively the worst performance among them even though it had been in a better position based on Dimension 2 between 2008 through 2009. When Dimension 2 (Health-Hygiene and Human Resources Labor Market) is a concern, most of the countries look like they did not make progress since 2013 except Egypt, Tunisia, and Turkey. On the other hand, countries such as Bahrain, Morocco, Saudi Arabia, and the United Arab Emirates had made progress between 2015 through 2019 on the attributes related to Dimension 1 (ICT-Readiness, Business Environment, and Safety-Security). Besides, Malaysia had moved to relatively the worst position between 2015 through 2019 even though it has been in a better position on Dimension 2.

When T and T Policy-Enabling Conditions Index is a concern, it composes of four attributes. The representation of them on a two-dimensional graph generated by the MDS resulting with a stress value of 0.00359, which indicates a good fit, is presented in Figure 4 which depicts the locations of the four attributes consisting of the T and T Policy-Enabling Conditions Index.

Figure 4: The Representation of the Attributes of T&T Policy Enabling Conditions Index

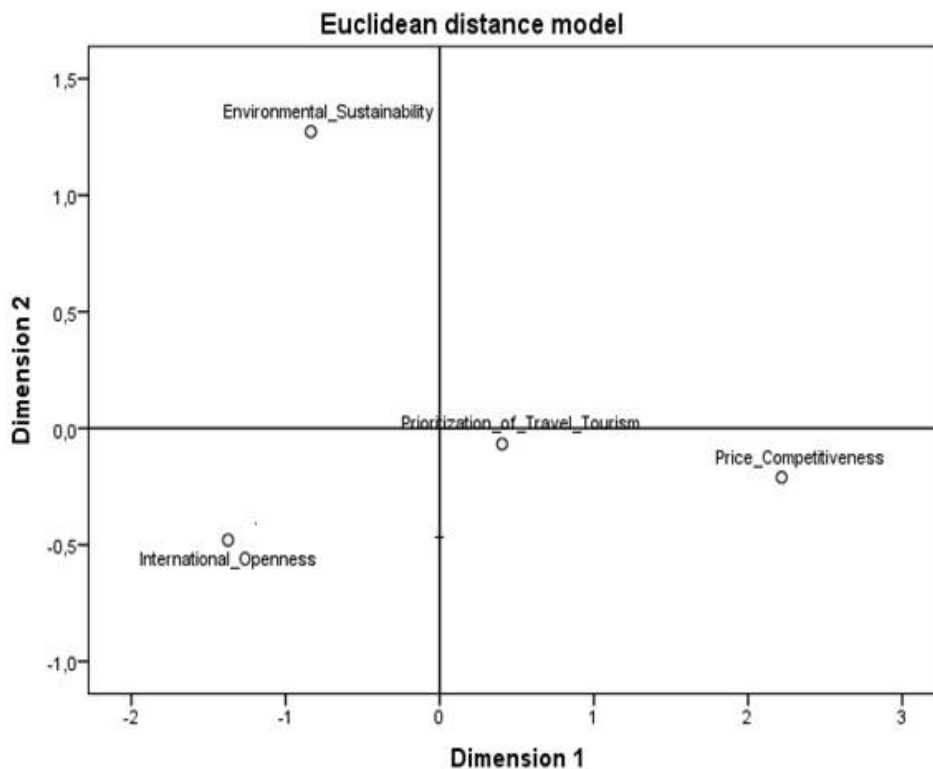
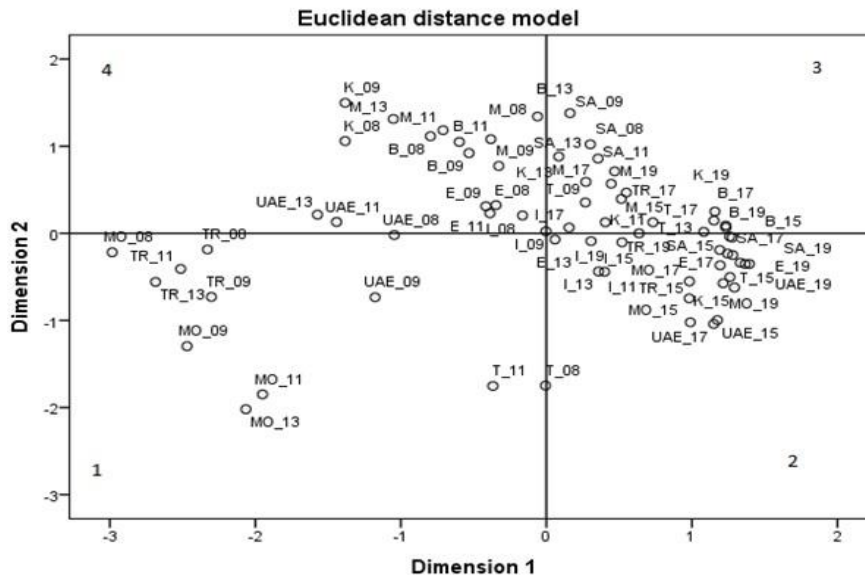


Figure 4 implies that while Dimension 1 represents International Openness, Price Competitiveness, and Prioritization of Travel and Tourism, Dimension 2 is characterized by Environmental Sustainability. When the countries are exhibited on a two-dimensional graph assigning a title to each dimension is important since the interpretation of countries should be given based on those dimensions. Hence, when the ten most visited Islamic countries are a concern for this index, the graph is depicted in Figure 5. The MDS with a stress value of 0.071 produces a graph composed of four regions containing the countries with year tags. Even though the stress value is a little larger than 0.05, it would not have an impact on affecting the reliability of the analysis.

Figure 5: Locations of the Ten Muslim-Majority Countries Concerning T&T Policy Enabling Conditions Index between 2008 through 2019



As seen from Figure 5, the two-dimensional graph generated by the MDS has four regions numbered from 1 to 4. While region 1 denotes relatively the worst location concerning two dimensions, region 3 expresses relatively the best location concerning two dimensions. On the other hand, while region 4 denotes the best location concerning Dimension 2 (Environmental Sustainability), region 2 expresses the best location concerning Dimension 1 (International Openness, Price Competitiveness, and Prioritization of Travel and Tourism,). Stress value, 0.00754, is attained, which indicates a good fit. Even though the locations of the countries in four regions are generated by the MDS, we need to conduct another statistical test whether these partitions are statistically significant or not. For this purpose, we conduct the ANOVA analysis to compare those four regions. Table 6 denotes the results of the ANOVA for each attribute and T and T Policy-Enabling Conditions Index.

Table 6: The Results of ANOVA

Index and Attributes	T&T Policy Enabling Conditions	Prioritization of Travel and Tourism	International Openness	Price Competitiveness	Environmental Sustainability
Significance Level	0.00<0.05	0.00<0.05	0.00<0.05	0.00<0.05	0.00<0.05

Table 6 implies that the four regions seen on a two-dimensional graph are statistically significant concerning both the T and T Policy-Enabling Conditions Index and its attributes that help interpret the locations of the countries. Therefore, we can infer how those countries evolve between 2008 through 2019.

Observed from Figure 5 that there existed almost no countries performing well on both dimensions except for Malaysia and Bahrain covering just between 2015 through 2019. Most of the countries were more concerned with Dimension 2 (International Openness, Price Competitiveness, and Prioritization of Travel and Tourism). Other countries had been in a better position on Dimension 2 between 2015 through 2019. The worst performances had been contained just between 2008 through 2013 for the countries such as Morocco, Turkey, and the United Arab Emirates. It could be inferred that Environmental Sustainability had been widely overlooked for almost all countries though the attributes related to Dimension 2 (International Openness, Price Competitiveness, and Prioritization of Travel and Tourism) had been more preferred.

To avoid the repetitions over and over again regarding explanations, we present the last two findings briefly since we believe it is crystal-clear how we have presented our findings. Hence, after this point on, we provide figures and tables together and present our interpretation after them.

When the Infrastructure Index is a concern, it composes of three attributes. The representation of them on a two-dimensional graph generated by the MDS resulting in a stress value of 0.00147, which indicates a good fit, is presented in Figure 6 which depicts the locations of the three attributes composing the Infrastructure Index. Figure 6 implies that while Dimension 1 is represented by Ground and Port Infrastructure, Dimension 2 is characterized by Airport Transport Infrastructure and Tourist Service Infrastructure. Figure 7 displays the countries with year tags. Table 7 presents the results of the ANOVA.

Figure 6: The Representation of the Attributes of the Infrastructure Index

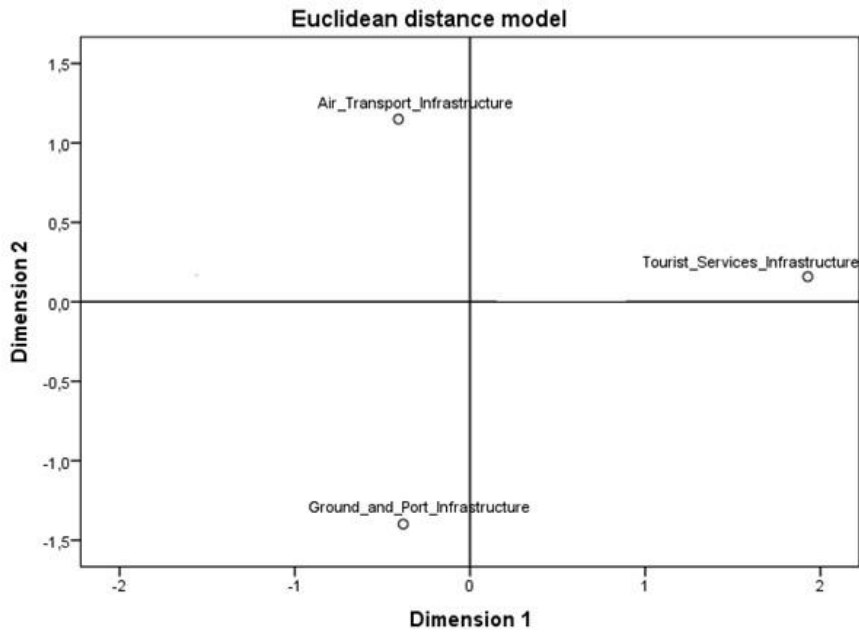


Figure 7: The Location of the Ten Muslim-Majority Countries Concerning Infrastructure Index between 2008 Through 2019

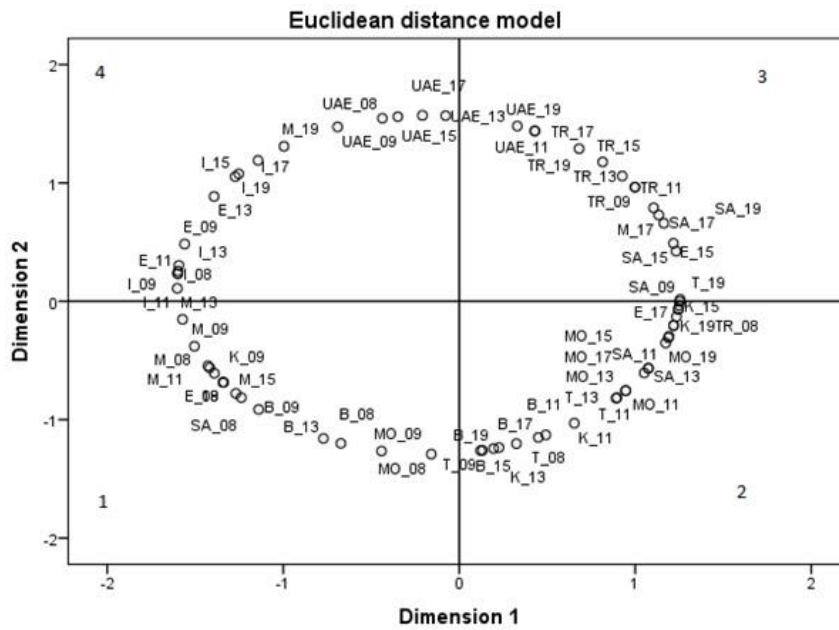


Table 7. The Results of ANOVA

Index and Attributes	Infrastructure	Airport Infrastructure	Ground and Port Infrastructure	Tourist Service Infrastructure
Significance Level	0.246>0.05	0.005<0.05	0.044<0.05	0.001<0.05

Table 7 implies that the four regions observed on the two-dimensional graph are not statistically significant when the Infrastructure Index is singly a concern. However, when the attributes consisting of the Infrastructure Index are a concern, they are all statistically significant. Hence, their representation by the MDS can be utilized.

Turkey’s performance had been in relatively the best position for the whole period except for 2008. In 2008, Turkey performed well concerning Dimension 1 (Ground and Port Infrastructure). While the worst performing countries were Malaysia, Morocco, and Bahrein with the different covering periods but they performed relatively worst before 2013. After that year most of the countries performed relatively well on either one of the dimensions. For example, while Malaysia had performed worse in the periods of 2008, 2009 2011, and 2015, Bahrein performed second worse in the periods of 2008, 2009, and 2013.

When the Natural and Cultural Resources Index is a concern, it composes of two attributes. Even though the two-dimensional representation of two attributes looks illogical, the correlation, 0.376, between those implies that their linear relationship is so weak that they can be represented by two dimensions. Hence, MDS is conducted resulting in a stress value of 0.00128. Figure 8 depicts two attributes on a two-dimensional graph. While Dimension 1 represents the Cultural resources, Dimension 2 expresses the Natural resources. Figure 9 displays the locations of the countries with year tags. Table 8 denotes the results of ANOVA.

Figure 8: The Representation of the Attributes of the Natural and Cultural Resources Index

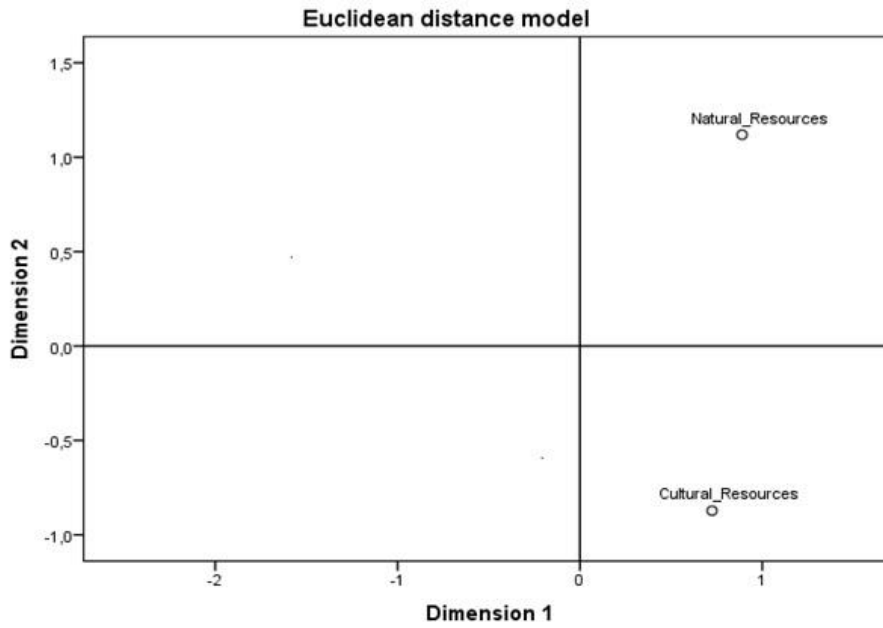


Figure 9: The Location of the Ten Muslim-Majority Countries Concerning the Natural and Cultural Resources Index between 2008 Through 2019

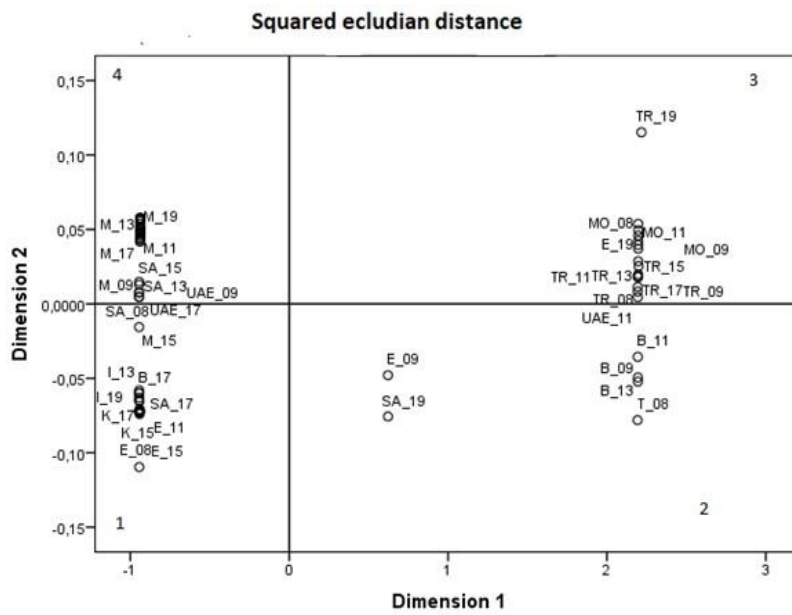


Table 8: The Results of ANOVA

Index and Attributes	Natural and Cultural Resources Index	Natural Resources Attributes	Cultural Resources Attributes
Significance Level	0.023<0.05	0.001<0.05	0.022<0.05

As seen from Figure 9 that Turkey’s performance covering the period between 2008 through 2019 except for 2008 had been in a relatively better position among the countries. No other countries had it except for Morocco covering between 2008 through 2011. On the other hand, Malaysia had been one of the countries that should be paid attention to regarding natural resources since its performance has been better than other countries. On the other hand, some countries such as Indonesia, Kazakhstan, Saudi Arabia, United Arab Emirates, and Bahrein in different years had relatively worst performances.

5. Conclusion

We investigated the ten most visited Islamic countries using the data issued by the WEF that aggregates 14 pillars in four different indexes whose weighted combination leads to a compound index called the Overall Index. When the four indexes and the Overall Index are a concern, the leading index relating to the Overall index is called the Infrastructure index followed by TT Policy Enabling Conditions Index. The Natural and Cultural Resources Index is the third related one. However, the least related one is called Enabling Environment Index. Compatibly with the literature (Kasri & Wibowo, 2015; Knežević-Cvelbar et al., 2016), the result underlines the significant impact of the infrastructure on overall competitiveness and development. Thus, destinations should focus on their tourism infrastructure primarily to enhance their competitiveness ability.

When the relations between indexes are a concern, two pairs of indexes have opposite relations, which are called Enabling Environment and T&T Policy-Enabling Conditions and, Enabling Environment and Natural-Cultural Resources. This implies that as long as improvements are made regarding Enabling Environment, these could lead both TT Policy-Enabling and Natural and Cultural Resources to decrease. Thus, a prior examination should be done before conducting improvements on

Enabling Environment since it could cause negative impacts on both T&T Policy-Enabling Conditions and Natural and Cultural Resources. Therefore, the result demonstrates a lack of holistic tourism development in the examined countries which negatively affects the overall competitiveness of the destinations.

By conducting MDS and ANOVA, the best and worst countries are relatively determined between 2008 through 2019, which covers the whole dataset issued by WEF. To summarize what we have found when the Enabling Environment Index is a concern, while Kazakhstan was relatively the best performer, Indonesia performed relatively the worst. Kazakhstan was the leading country among them and had been in a steady condition for the whole period. After 2013, no countries made a progress on Dimension 2 (Health-Hygiene and Human Resources Labor Market) except for Egypt, Tunisia, and Turkey. On the other hand, some countries made progress on Dimension 1 (ICT-Readiness, Business Environment, and Safety-Security), namely, Morocco, the United Arab Emirates, Saudi Arabia, and Bahrain between 2015 through 2019.

When T and T Policy-Enabling Conditions Index is a concern, Malaysia performed well in the period covering 2015 through 2019 as the best country and improved its position from where it had been from 2008 through 2013. On the other hand, no country at all performed worst from 2015 through 2019. However, it can be observed that most of the countries dealing with tourism overlooked Environmental Sustainability. Moreover, Kazakhstan and Bahrein shared similar best performances with Malaysia in 2019. Although Turkey was the worst performer between 2008 through 2013, Turkey reached a peak between 2015 through 2017. In 2019, Turkey dropped from where it had been previously. On the other hand, the worst performers existed before 2013 and the number of them is very few.

When the Infrastructure Index is a concern, Turkey's performance had been in the best position for the whole period except for 2008. In 2008, Turkey performed well concerning Dimension 1 (Ground and Port Infrastructure). While the worst performing countries were Malaysia, Morocco, and Bahrein with the different covering periods. For example, while Malesia had performed worse in the periods of 2008, 2009 2011, and 2015, Bahrein performed second worse in the periods of 2008, 2009, and 2013.

When Natural and Cultural Resources are a concern, Turkey's performance covering the period between 2008 through 2019 except for 2008 had been in a steady condition and positioned itself in a better place than other countries. Turkey shared its best position with Egypt in 2019. However, Indonesia performed worst in 2019 followed by Kazakhstan, Saudi Arabia United Arab Emirates, and Bahrein in 2017. On the other hand, Malaysia had been a leading country with a performance of natural resources in most of the period.

In conclusion, the ten most-visited Muslim-majority countries having different degrees of tourism experiences and activities share one common thing. They all overlook environmental sustainability and focus on attributes related to improving the business side of tourism such as ICT-Readiness, Business Environment, Safety-Security, and so on. Turkey leads those countries in both Infrastructure and Cultural and Natural resources followed by Malaysia and Egypt. Kazakhstan leads all countries in Enabling Environments, which implies that Kazakhstan had an attitude to improve its tourism. On the other hand, Indonesia looks like it had performed relatively worst among them. Besides, the efforts taken by those countries had not been steady since the fluctuations in their positions verified this.

The lack of a unified, integrated, and sustainable tourism policy is the main obstacle to stable tourism development in those countries. To overcome this problem, the destinations should increase the priority of tourism in their national policies, encourage competitiveness in tourism, increase cooperation between the public and private sectors, and develop international cooperation, including cooperation with OIC member countries as well.

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