Vol 14, Issue 4, (2024) E-ISSN: 2222-6990

# Marketing Opportunities for the Malaysia Halal Food Industry in the Middle East and North Africa (MENA) Region

Nor Asyikin Hasan Adali, Mohd Azidan Abdul Jabar, Muhd Zulkifli Ismail, Wan Muhammad Wan Sulong, Abd Rauf Hassan

Faculty of Modern Languages and Communication, Universiti Putra Malaysia, Serdang, Selangor, Malaysia

Email: asyikin\_hasanadali@yahoo.com, azid@upm.edu.my, zulismail@upm.edu.my, w mhd@upm.edu.my, raufh@upm.edu.my

**To Link this Article:** http://dx.doi.org/10.6007/IJARBSS/v14-i4/21098 DOI:10.6007/IJARBSS/v14-i4/21098

Published Date: 01 April 2024

## **Abstract**

The MENA region is one of the most rapidly expanding food and beverage marketing platforms in the world. Malaysia as an international halal hub sees the MENA region as an important target for the export market of halal food products. Various efforts have been outlined and implemented towards accelerating the export activity to that region. Hence, this research was conducted to analyse the food ecosystem in the MENA region and the landscape of the halal food market there in detail and comprehensively. This research is a qualitative research which uses the literature review method entirely for the collection and analysis of data. The findings of the research are that the food products which are the main imports for the population in the MENA region are cereal, dairy products, meat, fruit and nuts, food preparation products, vegetables, vegetable fat and animal fat based products, coffee products, tea and spices, cereal and pastry preparation products, as well as sugar and honey products. The findings of this research are useful as it is a reference for the decision makers in the halal food industry in Malaysia who intend to market food products in the MENA region. **Keywords:** Halal Food Industry, Marketing Opportunity, Middle East and North Africa (Mena), Food Consumption, Food Requirement, Import, Export, Halal Food Product.

#### Introduction

For the halal industry, the largest margin is in the food and beverage sector be it at the global level or domestic level. The halal food industry is a food and beverage manufacturing industry that abides by Islamic law from the aspects of input, production process, packaging as well as marketing (Noor et al., 2016). The halal food industry dominates 60 percent of the total value of the global food industry (Yaakub, 2020). The value of the global halal food industry is

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

projected to reach USD2.1 trillion in 2030. The rapidly increasing demand for halal products will be evident when the world Muslim population is estimated to increase from 2 billion in 2030 to 3 billion in 2060. The Muslim population is 30 percent of the world population and there are 57 countries where the majority of its population adhere to Islam (Bashir 2020; Hamid et al. 2022).

The rapid development of the global halal market is attributed to several supporting factors such as the increase in population and purchasing power among the Muslims worldwide. In fact, the emergence of new halal markets is no longer limited to Muslim countries as Muslim minorities have also widened the opportunities for halal products. Raising awareness about the value and the importance of halal among the non-Muslims also contributed to the development of this industry (Suhaimee et al., 2019). The economic growth of the OIC countries and a high level of interest among the players in the global market towards the halal industry further contributed to the potential and credibility of this industry (Muhamed et al., 2020).

The MENA (Middle East and North Africa) region is experiencing a serious lack of food supply for domestic requirements, hence making it very reliant on imported food (Siam, 2009; Alboghdady & El-Hendawy, 2016). The MENA region is the largest food importer in the world and the majority of its countries have an extremely low subsistence level in food production (Daghir et al., 2021; Al-Saidi and Dehnavi, 2021). The research by Sadler and Magnan (2011) found that this is because most countries in the MENA region not only have arid land but also limited water resources and agricultural land. As a consequence, local food production in almost the entire area of the MENA region is affected and insufficient. The International Food Policy Research Institute (IFPRI) estimated that overall 25 to 50 percent of the food consumption for most countries in the MENA region is met by imported food.

Malaysia, as a country that is very reliant on the export sector (World Bank, 2019) in generating its economy views this issue as a golden opportunity to strengthen the halal industry trade through the export of halal food products. In the projection of the Halal Industry Plan 2030, it is estimated that the market value of the halal market in the MENA region will reach USD1.2 trillion in 2030. Thus, this research is conducted to analyse the food ecosystem in the MENA region and the landscape of the halal food market there in detail.

## **Demography of the MENA Region**

The MENA region covers more than 15 million square kilometres from the Atlantic coast of Africa to Central Asia, as well as from the Mediterranean Sea to the Sahara Desert (Ben Ali, 2016). Specifically in terms of geography, the MENA region covers the Moroccan area in north west Africa to Iran in south west Asia and down to Sudan in Africa (Ismail et al., 2018). The MENA region as a whole consists of 493 million people in 2022 and represents about 6 percent of the population on Earth (Ben Ali 2016; World Bank, 2022). The International Monetary Fund (IMF) stated that the population rate in the MENA region is estimated to be the same as the population in the European Union. There is no specific method or standard list issued by any official body or agency to determine the total number of countries within the MENA region, thus there are several contradictions from the aspect of determining the true total number of countries in the region. Among the numbers stated are 20 UNICEF (2019), 21 World Bank (2022), 22 Ismail et al (2018) and 24 (El-Erian & Fischer, 2000). However, in general, according to Abed and Davoodi (2003) the MENA region comprises the Arab countries in the Middle East and North Africa. Based on the definition of concept by Abed and Davoodi (2003), the MENA region that is the focus of this research comprises 21 countries which are Algeria,

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

Saudi Arabia, Bahrain, Djibouti, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Mauritania, Egypt, Oman, Palestine, Qatar, Somalia, Sudan, Syria, Tunisia, UAE, and Yemen.

The MENA region has a hot and dry climate as less than 10 percent of the area in this region receives enough rain (Heine, 2004; Savvaidis and Osaili, 2022). Based on FAO (2018), the level of rainfall in this region is among the lowest in the world making it the region with the highest water scarcity. The average annual rainfall in the Middle East is about 27 millimetres whereas in North Africa it is 96 millimetres. It is forecasted that due to regional warming and change in rain pattern, the availability of water is projected to reduce in most of the areas in the MENA region throughout the 21st century. Iraq is expected to experience the largest decline in water availability by as much as 60 percent, followed by Djibouti, Jordan, Sudan and Syria by more than 50 percent (Breisinger et al., 2010). Widely known as the region receiving the least water in the world, this makes water access in the MENA region more critical when climate change occurs.

When water availability becomes increasingly less, the competition to secure water for agriculture and other sectors increases. Although the agricultural sector contributes 12 percent to the economy in MENA, it uses 89 percent of water compared to the industrial sector which only uses 4 percent of water (Breisinger et al., 2010). This water deficit prevents the MENA region from producing the food required domestically in the country and causes the region to depend on food imports. This is because, 70 percent of the agricultural produce in this region is in the rain catchment area (Selvaraju, 2013). However, this region has overcome its water deficit through various means including abstraction of groundwater, collecting and storing rainwater, reusing water, desalination plant and food import (Waha et al, 2017).

Compared to other regions, the MENA region stands out as not only does it have a background rich in history and culture, but its countries also share similar social, political, economy, culture, religion, language and ancestry attributes (Malal 2020; Savvaidis and Osaili 2022). Human beings have occupied this region since thousands of years ago. Several of the world's most influential empires and oldest civilisations have emerged in this region around the valley of the Nile River in Egypt as well as the Tigris and Euphrates rivers in Iraq (Donboli & Kashefi, 2005). The religion of the majority community in the MENA region is Sunni Islam. However, there are several countries of the Syiah branch such as Iran and Iraq that covers 60 percent of its population. The rest of the community holds to other monotheistic religions such as Christianity and Judaism. There is also the religion of a small minority such as Mandaean or Yezidi in Iraq (Heine, 2004).

The people who dominate the settlements in the MENA region are Arabs. Although there are differences in the daily speaking language for every country in the MENA region, in general they use the same official language that is the Arabic language or known as 'Modern Standard Arabic' (Heine, 2004). The countries in the MENA region which use the Arabic language are those in the Arab Gulf which are Bahrain, Kuwait, Iraq, Oman, Saudi Arabia, Qatar and UAE Savvaidis et al (2022), the Arab Maghreb Union (AMU) countries which are Algeria, Libya, Morocco, Tunisia and Mauritania Parshotam (2022) as well as other member countries of the Arab League such as Djiobouti, Egypt, Jordan, Lebanon, Palestine, Somalia, Sudan, Yemen and Syria (Ismail et al., 2018).

The population in the MENA region is growing rapidly and has doubled in the three decades since 1980. In 2022, the total number of people in the MENA region was 493 million and is expected to increase by 110 million by 2030 (World Bank, 2022; Economist 2016). This rate will continue to progressively rise as the MENA region has the highest annual growth rate

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

in the world that is 2.1 percent compared to the world average of 1.2 percent (Nigatu & Motamed, 2015). It is estimated that the total population in the MENA region in 2050 will be 730 million (UNDESA, 2016). Therefore, the MENA region is elevated as one of the territories which is the most rapidly expanding in the world, and this growth will certainly put intense pressure on the country resources and environment.

Roughly speaking, the countries in the MENA region are classified into three stages of economic development. First is the high income countries such as Qatar, Kuwait, Saudi Arabia, Oman, Bahrain and the United Arab Emirates. Second is the middle income countries such as Morocco, Egypt, Palestine, Tunisia, Jordan, Libya and others. Third, the low income countries which are Somalia, Sudan, Syria and Yemen (Keulertz et al. 2016; World Bank, 2022). A large part of the population in the MENA region are in the middle income economies with the average GDP per capita of USD3.111 trillion (World Bank, 2022). Schedule 1 below shows in detail the population and the Gross Domestic Product (GDP) per capita for 21 countries in the MENA region which are the basis of research.

Schedule 1
Population and Gross Domestic Product in the MENA Region

No.	MENA region country	Population (Million)	GDP per capita	Income group	
1.	Algeria	44.617	3765	Middle	
2.	Saudi Arabia	35.341	23,586	High	
3.	Bahrain	1.748	22,232	High	
4.	Djibouti	1.002	3364	Middle	
5.	Iraq	41.179	5048	Upper middle	
6.	Jordan	10.269	4406	Upper middle	
7.	Kuwait	4.329	24,812	High	
8.	Lebanon	6.769	2670	Lower middle	
9.	Libya	6.959	6018	Upper middle	
10.	Morocco	37.345	3497	Middle	
11.	Mauritania	4.775	1723	Lower middle	
12.	Egypt	104.258	3876	Middle	
13.	Oman	5.223	16,439	High	
14.	Palestine	4.923	3664	Middle	
15.	Qatar	2.931	61,275	High	
16.	Somalia	16.360	446	Low	
17.	Sudan	44.909	764	Low	
18.	Syria	18.276	1266	Low	
19.	Tunisia	11.936	3924	Middle	
20.	UAE	9.992	36,285	High	
21.	Yemen	30.491	690	Low	
TOTA	<b>L</b>	443.632			

Source: World Bank (2022)

#### Food Consumption of the Population in the MENA Region

Food is essential in human existence as it is the main basic necessity for humankind. In the Arabic language, food is pronounced as *at'imah* which is a plural word to *ta'am* which means

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

everything that is consumed to obtain strength. The word *ta'am* means to taste something whether it is sweet, bitter, sour, salty and so on (*al-Mu'jam al-Wajiz*, 1992). In the Food Act 1983, food is referred to as including everything manufactured, sold or represented for use as food or drink for human use. Materials and ingredients added or used in the composition, preparation, preservation of any food or drink is included in the definition of "food". The Act also states that sweets and chewing substances are categorised as food. In short, food is "(1) articles used for food or drink for man or other animals, (2) chewing gum, and (3) articles used for components of any other such article" (Fortin, 2009).

Most countries in the MENA region practice the Mediterranean diet. Based on this diet, food is not only a source of nutrition, but in fact, is a special means of interaction which is also held in high regard because of its close connection to religion (CIHEAM, 2012). For Heine (2004), although there are several factors which influence food and beverage intake in the MENA region such as climate, economy, politics, and other factors, it is the cultural factor which is from the aspect of religion that plays the largest role. As the majority of the population in the MENA region are Muslims, hence the doctrine in the Islamic religion has an implication on the food consumption of the population in the MENA region.

For Muslims, ensuring that the food and beverage consumed are halal is an especially important matter. According to Yusuf Qardhawi (1994), halal is something that is permissible, it is not prohibited, and ought to be done from the perspective of *syara'*. Generally, all food and beverages that are good and are according to Islamic law are allowed. However, there are several categories of food and beverages which are forbidden in Islam and are classified as haram. Haram can be said to be everything that is dirty, ugly and disgusting. According to the al-Quran, in surah al-Maidah verse 3, four categories of food which are haram are carcass, blood, pork and animals which were slaughtered in the name of those other than Allah. In terms of beverages, all are allowed except for one which is haram that is khamar. Khamar is a drink that intoxicates; included in this category are hard liquor and alcoholic drinks. Its prohibition can be clearly seen in the al-Quran surah al-Maidah verse 90.

The main food consumption of a country or an area can also be seen by its staple food. In the MENA region, the main cereal consumed by the community there are wheat, barley, millet, and rice. Hard wheat is a type of cereal that is most liked as it is the main ingredient for making couscous in North Africa as well as in bulgur which is used in *tabbouleh* and *kibbeh* (Heine, 2004). Couscous is a staple food and the national food for countries in the MENA region such as Morocco, Tunisia, Algeria, Libya, Egypt and Lebanon. Whereas bulgur is the staple food for the community in the rural areas in the Arab world (Roden, 2000). Another important cereal is sorghum. Sorghum originated from Africa, south Sahara, and used in the Middle East and North Africa since the time before Islam. Similar to hard wheat, this cereal is also used in making couscous, pulp, soup, and cake. In addition, sorghum flour which is mixed with wheat flour is used to make cheaper bread.

Rice is also included as staple food and is distributed throughout the region. Rice is an important food in Iran, Iraq and Gulf countries. Besides water, cooked rice can have other ingredients added to it such as butter, oil, stock, and spices such as saffron to give an attractive colour to the rice. From Syria to Morocco, rice is one of the ingredients which is mixed in vegetable or chicken dishes and is not meant to be filling. Besides that, bread is also a main staple food in most of the areas in the MENA region. Bread has many names based on how it is made, shaped and used. Round bread is the easiest bread to make because its dough consists only of flour, water and yeast. There is also pita bread in a small size which is 15 cm

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

and a large size in 20 to 25 cm. The pita bread is usually prepared by wrapping chicken, as a food layer or filled with various ingredients such as vegetables, minced meat and spices.

The population in the MENA region are known for the diverse types of cereal and nuts which are also considered staple food. The most popular bean is the fava bean known as *ful*. This fava bean is used in various types of cooking. Among those which are favourites in the community are *ful mudammas*, *ta'miyya* and *falafel*. Besides fava beans, chickpeas are often consumed by being added to mutton or beef dishes, combined with noodles or usually as a dip such as *hummus*. *Hummus* is a must have *mezze* dish in the MENA region. *Mezze* is the dish served before the main dish. Besides that, the community in the MENA region are very fond of nuts such as almonds, chestnuts, hazelnuts, pine nuts, pistachios, sunflower seeds and walnuts. The nuts are usually ground and eaten with salad, fish or grilled meat.

Vegetables and fruits are an important part of the diet of the community in the MENA region. Vegetables are eaten in many ways either as a salad, added to meat dishes, eaten raw or cooked, mixed with meat or rice as an added ingredient or made into pickles. Among the popular vegetables among the community are artichoke, asparagus, cabbage, carrot, cucumber, garlic, shallot, eggplant, spring onion, okra, molokhia, chillies, potato, tomato, spinach, zucchini and vine leaves. Fruits are consumed in several ways including fresh, made into jam, dried, as fruit juice, as an ingredient in cakes and sweets, and added into cooking as seasoning. Fruits which are often consumed are olives, apples, apricots, cherries, citron, lemons, dates, figs, grapes, watermelons, oranges, and pomegranates. Apples, cherries, grapes, dates, watermelons, oranges and apricots are usually made into jam and also dried. Whereas the juice of the pomegranate and lemon are used as seasoning for various types of dishes apart from drinking the juice.

Dairy products play a significant role in culture as well as the composition of consumption of the population in the MENA region. Milk from cows, sheep, goats and camels are an important drink there. The white colour of the milk symbolises purity in the culture of the community in the MENA region. The milk from cows, sheep and goats are fermented to become sour milk and used as a common drink during the month of Ramadan as in Morocco or added to various types of dishes. A popular sour milk is yoghurt. The community also make cheese and butter from milk.

For the fats category, several types of animal and vegetable fats are often used by the community in the MENA region. Olive oil is the most popular. Since pre-Islamic times, olive trees were planted and olive oil produced in Syria, Lebanon, and several places in Iraq, Iran, Turkey and North Africa. Olive oil is a favourite and used in many dishes in the MENA region. Besides that, there is also argan oil which is famous in Morocco and sesame oil. As for animal fats, it is made from the fat of sheep, specifically its tail. In terms of meat consumption, there is a change in trend where meat which was previously consumed only on important days such as festivities is now the daily protein supply. This is influenced by the additional income in the community of the MENA region. They now often consume various types of meat whether fresh meat or processed meat such as goat, sheep, camel, beef, and chicken (Heine, 2004). Besides meat, the population in the MENA region also consume fish as an important source of omega 3.

Finally, the population in the MENA region use various types of spices in their cooking and dishes. The spices of choice and taste of the community include cardamon, cinnamon, cloves, fenugreek, galangal, mastic, nutmeg, rose petals, saffron, honey, sumac and others. These spices are not only used in cooking, but also added to sweets and coffee to give a special taste, such as nutmeg and cinnamon. Nutmeg and rose petal extract are often combined in

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

sweet food such as *katayef*. Honey functions as a sweetener especially in cakes and desserts (Heine, 2004).

# **Features of Food Supply Requirement in the MENA Region**

The MENA region is the largest nett food importer in the world for almost all types of food commodities. The import trade in the MENA region will remain as the most important contributor to the additional food supply in this region. Presently, the breakdown of percentages for overall import trade is about 27% cereal, 21% sugar, 20% chicken meat poultry, 39% lamb and mutton, 20% skim milk powder and 30% milk powder. This dependence will continue and is expected to become more dominant specifically for products such as wheat and corn (OECD, 2018). For details, the food supply requirement in the MENA region can be identified through the list of main food products imported according to the category and tariff code (Harmonized System-HS) using the application Trade Map ITC (International Trade Centre). The tariff code or HS refers to the classification system in the industry to classify trade products which is used throughout the process of exporting goods. It is used by the custom authorities all over the world to identify the product when evaluating duty and tax to collect statistics (*International Trade Administration*, 2023).

Every country in the MENA region has different food requirement priorities. This is determined by the highest rate of import for several categories of food for countries in the MENA region. For Gulf countries, the food product categories which are the main requirements are cereal, dairy products, meat, fruits and nuts, various food preparation products, vegetables, various products based on vegetable fat and animal fat, as well as coffee products, tea and spices. As for the countries in the Middle East the food products which are requirements are cereal, animal and vegetable fats, fruits and nuts, meat, dairy products, cereal and pastry preparation products, various food preparation products, vegetables, coffee products, tea and spices as well as sugar and honey products. Besides that, for countries in the North Africa territory food which are prioritised are cereal, animal and vegetable fats, dairy products, sugar and honey products, fruits and nuts, coffee products, tea and spices, cereal and pastry preparation products as well as various food preparation products (*Trade Map ITC*, 2023).

The details of several categories of selected main food requirements for countries in the MENA region were discussed based on the data for the year 2021 and according to the HS code classification which is for cereals (HS 10), animal and vegetable fats (HS 15), food preparation products (HS 21) and dairy products (HS 04). This is for the purposes of consistency in every category discussed. In fact, the code indicator is used as a general reference as there is a more detailed breakdown of the products within the same category. This can be referred to on the website, www.trademap.org.

Based on *Trade Map ITC* (2023), in the cereal category (HS 10), several types of cereal are the main requirement for countries in the MENA region which are wheat (HS 1001), rye (HS 1002), barley (HS 1003), oats (HS 1004), corn (HS 1005), rice (HS 1006), sorghum (HS 1007) and millet (HS 1008). The main cereal for the majority of the Gulf countries except for Oman such as in Saudi Arabia, Bahrain, Qatar, Kuwait, and UAE is rice. Rice is the basic and staple food of the community in the Gulf countries. This is due to the composition of the community in the Gulf countries which consist of expatriates from every corner of the world. The largest rice importer in the Gulf countries is Saudi Arabia with a total of USD1.127 billion.

Whereas cereal such as wheat is the important consumption for the community in several countries in the Middle East based on the total highest import such as Egypt

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

(USD2.465 billion), Jordan (USD0.208 billion), Lebanon (USD0.235 billion) and Yemen (USD0.836 billion). Corn is also seen to be an important requirement in Egypt, Jordan, and Lebanon with import amounting to USD2.411 billion, USD0.193 billion, and USD0.137 billion. Similarly for the majority of countries in North Africa in the MENA region except for Somalia and Djibouti, wheat is the main consumption of the community with the highest import recorded by Algeria totalling USD2.343 billion. Besides wheat, corn and barley are also the main food supply for countries such as Algeria, Morocco, Tunisia and Libya.

Next, after staple food, food products in the animal and vegetable fats category (HS 15) are a requirement for the majority of countries in the MENA region. Coded products which have the highest import value are soya bean oil (HS 1507), olive oil (HS 1509), palm oil (HS 1511), sun flower oil, safflower, or cottonseed (HS 1512), flaxseed oil, corn oil, castor oil and sesame oil (HS 1515), hydrogenated animal or vegetable fats and oil (HS 1516), as well as margarine (HS 1517).

For the animal and vegetable fats based product category, palm oil is the main requirement of the community in the Gulf countries except Kuwait as they prefer to use vegetable oil compared to palm oil. Besides palm oil, they also like sunflower oil, olive oil, soya bean oil, coconut oil and margarine. For the Middle East community in the MENA region, the use as well as requirement for sunflower oil is seen to be more dominant in most countries compared to palm oil. For example in Palestine, Syria, Lebanon, Iraq and Jordan with the most import is Iraq amounting to USD0.458 billion. For the Egypt and Yemen community, palm oil is still the main choice in cooking and also food with annual import of USD0.958 and USD0.182 billion. Besides that, soya bean oil is also used and is popular among the community in Palestine, Lebanon, Iraq and Jordan.

For the community in North Africa of the MENA region, they consume a lot of soya bean oil. This is evident when countries such as Algeria, Morocco, Tunisia and Mauritania import soya bean oil in large quantities. Algeria is the highest soya bean oil importer at USD0.818 billion. Palm oil is also consumed by the community in the MENA region on the North Africa side, but not as popular as in the Gulf countries. Palm oil is in high demand only in Somalia, Djibouti and medium high in countries such as Tunisia and Sudan. Besides that, for sunflower oil, it is the most important import for Sudan and the second most important for Libya as well as Djibouti.

Next, products in the food preparation category (HS 21) which are requirements and have main demand in the MENA region are food preparation products, concentrated protein material and textured protein material (HS 2106), concentrated coffee extract, tea or maté (HS 2101), yeast and baking powder (HS 2102), sauce and seasoning/condiment (HS 2103), soup preparation (HS 2104), and ice cream (HS 2105). For Gulf countries, food preparation products, concentrated protein material and textured protein material (HS 2106) have the highest placing in the import list becoming the main requirement for the community there. Next, the demand for sauce as well as seasoning (HS 2103) has the second highest placing in almost all the Gulf countries except Oman. Whereas coffee extract (HS 2101) is the third important import in Saudi Arabia, Qatar and UAE as well as the fourth important import for Bahrain and Oman. Ice cream products are also well received in Gulf countries especially in Oman, and also several other countries such as in Bahrain, Kuwait, Qatar and UAE.

In the Middle East, Iraq is the largest importer of product (HS 2106) with a total of USD0.246 billion and followed by Egypt USD0.228 billion. Concentrated coffee extract, tea or maté (HS 2101) is a requirement of the community in Egypt, Palestine, Syria, Lebanon, Iraq and Jordan. Jordan is the highest importer of coffee extract with a total of USD47.9 million

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

followed by Egypt with USD33.8 million. Besides that, sauce and seasoning products has a demand in all the Middle East countries especially in Iraq with a total import of USD45.9 million, Jordan USD41.2 million, Syria USD16.7 million, and Lebanon USD15.9 million. Finally yeast products, ice cream and soup preparation products are also a requirement of the community in the Middle East.

The majority of North Africa countries in the MENA region import food preparation products, concentrated protein material and textured protein material (HS 2106) in large quantities. The main importers in this product category are Algeria and Morocco with a total import of USD166 million and USD122.1 million. Yeast products also have high demand in Algeria USD45.5 million, Sudan USD42.3 million, Libya USD18.3 million, and Djibouti USD10 million. Besides that, the majority of countries also import coffee extract, sauce and seasoning, ice cream and soup preparation products.

Finally, dairy products are an important requirement that has high demand in the population in the MENA region. Dairy products which have the most import are milk and cream not concentrated (HS 401), milk and cream concentrated (HS 402), buttermilk, yoghurt, kefir and fermented milk/cream (HS 403), whey (HS 404), butter (HS 405), cheese and curd (HS 406), as well as chicken/duck eggs (HS 407).

As we are aware, the community in Gulf countries are very fond of food products based on milk or dairy products. Concentrated milk and cream products have high demand all over the Gulf countries with UAE becoming the largest importer with total import at USD880.6 million followed by Saudi Arabia USD702.6 million. Cheese is the main import in Saudi Arabia and Kuwait with total import at USD728.8 million and USD86.1 million. Besides that, products such as butter (HS 405), buttermilk, yoghurt, kefir and fermented milk/cream (HS 403), as well as eggs also have encouraging demand from the community in Gulf countries. Similarly for the community in Middle East and North Africa of the MENA region, they too highly favour concentrated milk and cream products (HS 402) as well as cheese and curd (HS 406). Both dominate the highest import total. Egypt and Algeria are the largest importers of concentrated milk and cream. Whereas other dairy products which also have high demand are butter, whey, milk and cream which are not concentrated as well as eggs.

## Malaysia Halal Food Product Export to the MENA Region

Malaysia has undertaken various efforts to accelerate the export of halal food to the MENA region. Schedule 2 shows the latest export value of Malaysia food products to the MENA region as well as a list of the main food products exported.

Schedule 2 Food products which are exported to the MENA region

enedule 2 1 000 products which are exported to the WEIGH region										
Main Export		ort Value	ılative Exp	Cumu	MENA					
		housand)	Region							
Food Product	HS	2021	2020	2019	Gulf					
	Code				country					
Palm oil	151190	534,088	411,248	229,687	Saudi					
Meat or meat prepared or	160239				Arabia					
preserved from duck, goose and										
chicken										
Vegetable oil and fat.	151620									
Mixture or preparation of										
animal/vegetable fat or oil.										

DI. 14, NO. 4, 2024,	, L-13314. ZZZZ	-0330 @ 2024		1	
				210690	Food preparation.
				190590	Bread, pastry, cake, biscuit and
					other bread making items, whether
					or not containing cocoa.
Bahrain	19,829	17,410	18,681	151190	Palm oil.
				160239	Meat or meat prepared or
					preserved from duck, goose and
					chicken.
				210690	Food preparation.
				151790	Mixture or preparation of
					animal/vegetable fat or oil.
				190590	Bread, pastry, cake, biscuit and
					other bread making items, whether
					or not containing cocoa.
				151319	Coconut oil.
Qatar	45,096	39,195	60,207	151190	Palm oil.
				160239	Meat or meat prepared or
					preserved from duck, goose and
					chicken.
				210690	Food preparation.
				180690	Chocolate and preparation
					containing cocoa.
				190590	Bread, pastry, cake, biscuit and
					other bread making items, whether
					or not containing cocoa.
				151790	Mixture or preparation of
					animal/vegetable fat or oil.
Kuwait	58,390	44,315	73,224	151190	Palm oil.
				151620	Vegetable oil and fat.
				160239	Meat or meat prepared or
					preserved from duck, goose and
					chicken.
				210690	Food preparation.
				180690	Chocolate and preparation
					containing cocoa.
				190590	Bread, pastry, cake, biscuit and
					other bread making items, whether
					or not containing cocoa.
Oman	37,725	90,124	88,355	151190	Palm oil.
				190590	Bread, pastry, cake, biscuit and
					other bread making items, whether
					or not containing cocoa.
				110412	Oats
				151790	Mixture or preparation of
					animal/vegetable fat or oil.
	•				

VOI. 14, NO. 4, 2024	, L-13314. 2222	-6990 © 2024			<del>_</del>
				160239	Meat or meat prepared or
					preserved from duck, goose and chicken.
				10000	
				180690	Chocolate and preparation
					containing cocoa.
UAE	218,309	217,944	335,780	151190	Palm oil.
				151620	Vegetable oil and fat.
				210690	Food preparation.
				160239	Meat or meat prepared or
					preserved from duck, goose and
					chicken.
				151319	Coconut oil.
				190190	Malt extract; Food preparation
					from flour.
Middle	2019	2020	2021	HS	Food Product
East	2013	2020	2021	Code	1 ood 1 oddet
	00.656	164 715	241 422	<b>151190</b>	Palm oil.
Egypt	99,656	164,715	341,433		
				151620	Vegetable oil and fat.
				151790	Mixture or preparation of
					animal/vegetable fat or oil.
				210690	Food preparation.
				151319	Coconut oil.
				040221	Milk and cream in solid form
					(powder), without sugar.
				210390	Sauces, condiments and seasoning
Palestine	1,464	1,432	620	151620	Vegetable oil and fat.
				151190	Palm oil.
				151790	Mixture or preparation of
					animal/vegetable fat or oil.
Jordan	26,066	24,604	60,033	151190	Palm oil.
30.00		,	00,000	151620	Vegetable oil and fat.
				151790	Mixture or preparation of
				131790	animal/vegetable fat or oil.
				100500	i
				190590	Bread, pastry, cake, biscuit and
					other bread making items, whether
					or not containing cocoa.
				151319	Coconut oil.
				210690	Food preparation.
Yemen	56,095	82,330	101,160	151190	Palm oil.
				151620	Vegetable oil and fat.
				151790	Mixture or preparation of
					animal/vegetable fat or oil.
				151311	Raw coconut oil.
				210690	Food preparation.
<u> </u>	l	l	I		. ood preparation.

VOI. 14, NO. 4, 2024	, E-133IN. ZZZZ	-6990 © 2024			
				200899	Fruit and other parts of plant that
					can be consumed, prepared or
					preserved.
Syria	24,843	20,499	39,294	151190	Palm oil.
				151620	Vegetable oil and fat.
				170199	Cane sugar or beet sugar
				151790	Mixture or preparation of
					animal/vegetable fat or oil.
				151319	Coconut oil.
				190190	Malt extract; Food preparation
					from flour.
Iraq	26,422	33,412	30,154	151190	Palm oil
	_0,	00,111		151790	Mixture or preparation of
				131730	animal/vegetable fat or oil.
				151319	Coconut oil
				151620	Vegetable oil and fat
					<del>-</del>
				190531	Sweet biscuits
	2010	2020	2024	210690	Food preparation
North	2019	2020	2021	HS	Food Product
Africa				Code	
Algeria	87,488	54,045	94,677	151620	Vegetable oil and fat.
				151790	Mixture or preparation of
					animal/vegetable fat or oil.
				151190	Palm oil
				190190	Malt extract; Food preparation
					from flour.
				040221	Milk and cream in solid form
					(powder), without sugar.
				151319	Coconut oil
				190590	Bread, pastry, cake, biscuit and
					other bread making items, whether
					or not containing cocoa.
Morocco	9,671	21,834	15,042	151620	Vegetable oil and fat.
				151790	Mixture or preparation of
					animal/vegetable fat or oil.
				210690	Food preparation
				151190	Palm oil
				151319	Coconut oil
				190590	Bread, pastry, cake, biscuit and
					other bread making items, whether
					or not containing cocoa.
Tunisia	3,583	6,298	5,286	151620	Vegetable oil and fat.
	•		-	151190	Palm oil
				151319	Coconut oil
				151790	Mixture or preparation of
					animal/vegetable fat or oil.
				1	

,,,			1	
			210690	
Somalia 82,	L84 85,42!	81,246	151190	
			040221	
				(powder), without sugar.
			151319	Coconut oil
			110412	
			110290	
			210690	• •
			040900	Natural honey
Sudan 32,	354 50,99!	16,752	151190	Palm oil
			040221	Milk and cream in solid form
				(powder), without sugar.
			151790	Mixture or preparation of
				animal/vegetable fat or oil.
			210690	Food preparation
			151620	Vegetable oil and fat.
			190190	Malt extract; Food preparation
				from flour.
Libya 3,0	2,910	4,760	151620	Vegetable oil and fat.
			151190	Palm oil
			151790	Mixture or preparation of
				animal/vegetable fat or oil.
			190590	Bread, pastry, cake, biscuit and
				other bread making items, whether
				or not containing cocoa
			190190	Malt extract; Food preparation
				from flour.
			151319	Coconut oil
			040299	Milk and cream, concentrated and
				sweet.
Djibouti 44,2	217 89,148	3 169,249	151190	Palm oil
			151620	Vegetable oil and fat.
			151790	Mixture or preparation of
				animal/vegetable fat or oil.
			040221	Milk and cream in solid form
				(powder), without sugar.
			110412	Oats
			040291	Milk and cream, concentrated but
				not sweet.
			151319	Coconut oil
			190590	Bread, pastry, cake, biscuit and
				other bread making items, whether
				or not containing cocoa
/lauritania 46,	56,670	45,190	151190	Palm oil

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

	190190	Malt ext	tract;	Food	prepar	ation
					from	flour.
	040291	Milk and	cream	n, conc	entrate	d but
					not sv	weet.
	040299	Milk and	cream	, conc	entrated	and
					SI	weet.
	151790	Mixture	or	prep	aration	of
		ar	nimal/	vegeta	ble fat o	or oil.
	110412					Oats
	170490	Sweets	and	confe	ections	not
				con	taining o	ocoa

Source: Trade Map ITC (2023)

The schedule above lists several categories of main halal food products which are exported to the MENA region. The product which is the main export for Malaysia are palm oil, food preparation products, dairy products, as well as bread, pastry, cake and biscuit products. As the marketing opportunity in the MENA region is large, hence the export of Malaysian food products must be accelerated. Until now, the export of palm oil based oil and fat to the MENA region is at the rate of 64 percent and is expected to increase to 75 percent (Harian, 2021).

## Value of the Food Import and Export Market in the MENA Region

The MENA region is experiencing a deficit in terms of fulfilling the food requirements of the population of its region, hence the dependence on imported food is extremely high. This is proven based on the total import and export from 2019 until 2021 for processed food and agro-based products in countries of the MENA region which is reported in the following Schedule 3. Diagram 1 is reporting the cumulative value of import and export to the MENA region.

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

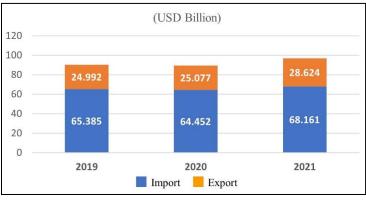
Schedule 3

Value of food product import and export in the MENA region

No	MENA	Import (USD Billion)			Export (USD Billion)			
	Region	2019	2020	2021	2019	2020	2021	
1.	Algeria	4.112	4.121	4.656	0.285	0.296	0.289	
2.	Saudi Arabia	11.833	12.246	12.481	2.972	2.848	3.281	
3.	Bahrain	1.143	1.102	1.095	0.570	0.545	0.642	
4.	Djibouti	0.674	0.939	1.418	0.024	0.059	0.194	
5.	Iraq	7.731	7.353	7.789	0.032	0.025	0.224	
6.	Jordan	1.944	2.128	2.140	0.475	0.520	0.458	
7.	Kuwait	3.161	3.146	2.856	0.310	0.329	0.335	
8.	Lebanon	1.698	1.099	1.153	0.428	0.443	0.464	
9.	Libya	2.219	2.220	2.741	0.006	0.001	0.002	
10.	Morocco	2.893	3.071	3.932	2.998	2.998	3.572	
11.	Mauritania	0.381	0.540	0.566	0.719	0.502	0.543	
12.	Egypt	4.328	3.113	3.553	2.905	2.715	3.444	
13.	Oman	2.664	2.776	3.030	1.516	1.405	1.649	
14.	Palestine	1.420	1.488	0.374	0.157	0.151	0.032	
15.	Qatar	1.589	1.575	1.475	0.004	0.005	0.009	
16.	Somalia	1.637	1.802	1.914	0.032	0.028	0.028	
17.	Sudan	1.033	1.291	1.590	0.141	0.178	0.160	
18.	Syria	1.532	1.364	1.485	0.199	0.214	0.251	
19.	Tunisia	0.837	0.824	0.785	1.141	1.435	1.279	
20.	UAE	10.051	9.588	10.282	10.004	10.270	11.639	
21.	Yemen	2.502	2.668	2.844	0.076	0.111	0.127	
TOT	AL	65.385	64.452	68.161	24.992	25.077	28.624	

Source: Trade Map ITC (2023)

Diagram 1 Cumulative import and export in the MENA region



Source: Trade Map ITC (2023)

Referring to Diagram 1, overall it can be seen that the total import of food products to the MENA region for three consecutive years, which is from 2019 until 2021 is three times higher compared to the total export. The large margin of difference between import and export values signals that the MENA region will continue to rely on foreign countries to support the food supply in its region for a lengthy period of time. Hence, outside countries

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

must identify the form and type of food supply requirement so as to be able to compete with other export countries to ensure that the food products offered will always be in demand by the population in that region.

Based on Schedule 3, it can be noted that the total food import for Saudi Arabia and UAE are the highest. This shows the dependence on food supply from overseas for both those countries are far larger than other countries in the region. As we all know, Saudi Arabia and UAE are Gulf Cooperation Countries (GCC) and the population of both those countries represent 77.9% of the total population in GCC for the year 2020 (GCC Food Industry Report, 2021). The population density experienced is the effect of the rapid increase in urbanization as well as a result of the migration of labour workers from all over whether from within or outside of the MENA region. For example, according to the data of the UAE government and IMF, foreigners make up 95% of the workforce in UAE in 2017 and around 90 percent of the UAE population reside in urban areas. Furthermore, UAE has a remarkably diverse population range where only 10 percent are UAE citizens, while the rest are expatriates.

## Regulatory Agencies for Imported Food Product in the MENA Region

In the MENA region, several regulatory agencies are responsible for monitoring the import of halal food products to ensure safety and compliance of the exporting country to local regulations. The following are several main regulatory agencies which are involved:

- i. GCC Standardization Organization (GSO): GSO is responsible for standardisation and food safety regulations in the Gulf Cooperation Countries (GCC), including Saudi Arabia, United Arab Emirates, Kuwait, Qatar, Bahrain and Oman. It determines the standards for food products and ensures compliance to technical regulations and labelling requirements (www.gso.org.sa/ar/, 2023).
- ii. Saudi Food and Drug Authority (SFDA): SFDA is the regulatory authority in Saudi Arabia that monitors the safety and quality of food, medicines, medical devices and cosmetics. It regulates and monitors food products which are imported, sets standards, and enforces compliance to food safety regulations (www.sfda.gov.sa, 2023).
- iii. Emirates Authority For Standards & Metrology (ESMA): ESMA is the regulatory agency in the United Arab Emirates that is responsible for standardisation, metrology and accreditation. It sets standards for food products which are imported, ensures compliance to the labelling requirements, and conducts inspections and tests to ensure food safety (eservices.esma.gov.ae, 2023).
- iv. Food Safety Department, Dubai Municipality: In Dubai, the Food Safety Department Dubai Municipality is responsible for regulating and monitoring food safety through the Food Code. Food Code was designed based on the code in the Western countries. Its purpose is to provide a model for the food industry so as to attain a higher level of standard compliance to food regulations and in the aspect of food safety by adopting good practices (Food Code, 2020). Besides that, its duty is to inspect food products which are imported, enforce compliance to regulations, and issue the required certification and permits (www.dm.gov.ae, 2023).
- v. Abu Dhabi Agriculture and Food Safety Authority (ADAFSA): ADAFSA is the regulatory authority in Abu Dhabi, UAE, which is responsible for ensuring the safety and quality of agricultural and food products. It supervises the importation of food products, conducts inspections, and sets regulations to protect public health (www.adafsa.gov.ae, 2023).

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

- vi. Qatar's Ministry of Public Health (MOPH): MOPH is the regulatory body in Qatar that is responsible for public health, including food safety. It regulates and monitors imported food products, ensures compliance to safety standards, and enforces labelling requirements. MOPH also issues guidance on its website for importing halal food and the Islamic body given the authority to produce halal product and halal slaughtering certificate (www.moph.gov.qa, 2023).
- vii. General Organization for Export and Import Control (GOEIC): GOEIC is the body that monitors import of food products, conducts inspections and enforces compliance to import regulations in Egypt (*International Trade Administration*, 2022).
- viii. The National Office for Sanitary Safety of Food Products (ONSSA): ONSSA is responsible for food safety and quality control, including importation of food products. It conducts inspections, sets standards and ensures compliance to regulations (www.onssa.gov.ma, 2023).
- ix. Jordan Food and Drug Administration (JFDA): Regulates and monitors the safety and quality of food, medicines and medical devices. It regulates importation of food products, sets standards and enforces compliance to regulations in Jordan (portal.jordan.gov.jo, 2023).
- x. Health Ministry: The Health Ministry in every MENA country plays a key role in regulating and supervising the importation of food products. It sets food safety standards, enforces regulatory compliance, and works together with other regulatory agencies to ensure consumer protection.

The agencies listed play a vital role in ensuring that the import and safety of food is guaranteed in the MENA region. Food producers who want to export to certain countries in the MENA region should visit the official websites of the agency or regulatory body to obtain guidance as well as to be informed of the proper procedure before importing food products to those countries. This is crucial to avoid any unwanted occurrences especially recalling food products as it will cause huge losses.

#### Conclusion

Based on the findings of this research, it can be concluded that although the population in the MENA region have many similarities in terms of food consumption, when scrutinised from the aspect of food supply requirement, differences exist according to country and country clusters within the region. The food supply requirement in the Gulf countries is different from countries in the Middle East and North Africa and vice versa. The differences which exist are influenced by several factors which were identified in the research which are population composition, population density as well as the GDP level of the country. This is because, the higher the GDP of a country, the higher the purchasing power and demand for halal food product, as what has happened in the Gulf countries. Similarly the composition and density of the population shapes the pattern for the food supply requirement for a country. For example, the high expatriate composition in Gulf countries has made rice a main food supply requirement compared to wheat in other countries in the MENA region.

Besides that, based on the findings of the research the decision made to export halal food products by the Malaysia halal industry players specifically must be in line with the type of food requirement for the countries in the MENA region which are the target market. This is to avoid losses as a result of exporting products which are not the choice and requirement of the local community there. Not only that, export and import involve high cost, hence every decision must be made carefully based on data.

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

Finally, this study has focused only on halal food products. Other halal sectors such as halal services, cosmetics, pharmaceuticals and others were not explored in this research. Hence future research can be conducted on other sectors to look at the marketing opportunities in the MENA region. Furthermore, this research only focused on several categories and types of food products which are the requirements of the population in the MENA region. Various other food products which are required by the population in the MENA region can be explored and studied to become the Malaysia halal food product export marketing agenda in that region. In addition, further study can be conducted from the perspective of the industry that has exported halal food products to the MENA region to discuss the aspects of strategy and challenges of marketing there. Therefore, this conducted study is expected to serve as a guide and support, particularly to the halal food industry in Malaysia when formulating marketing strategies for the MENA region market. This is to ensure that all decisions made by the industry are more objective, effective, and efficient, thereby further enhancing the participation of the Malaysian halal food industry in the international market.

## Acknowledgement

The authors would like to thank the Ministry of Higher Education Malaysia for funding this research under the grant FRGS/1/2020/SSIO/UPM/02/6.

## References

Al-Quran

- Abed, M. G. T., & Davoodi, M. H. R. (2003). *Challenges of growth and globalization in the Middle East and North Africa*. International Monetary Fund.
- Alboghdady, M., & El-Hendawy, S. E. (2016). Economic impacts of climate change and variability on agricultural production in the Middle East and North Africa region. *International Journal of Climate Change Strategies and Management*, 8(3), 463-472.
- Al-Qardhawi, Y. (1994). Al-Halal wa al-Haram. Beirut: Maktabah al-Islami.
- Al-Saidi, M., & Dehnavi, S. (2021). Toward a Circular Economy in the MENA Region: Insights from the Water-Food Nexus. In *Economic Development in the MENA Region: New Perspectives* (pp. 139-159). Cham: Springer International Publishing.
- Bashir, A. M. (2020). Awareness of purchasing halal food among non-Muslim consumers: An explorative study with reference to Cape Town of South Africa. *Journal of Islamic Marketing*, 11(6), 1295–1311.
- Ben Ali, M. S. (2016). *Economic Development in the Middle East and North Africa: Challenges and Prospects*. Palgrave.
- Breisinger, C., Van Rheenen, T., Ringler, C., Pratt, A. N., Minot, N., Aragon, C., ... & Zhu, T. (2010). Food security and economic development in the Middle East and North Africa. Current State and Future Perspective. IFPRI Discussion Paper, 985.
- CIHEAM. (2012). MediTerra 2012. *The Mediterranean diet for sustainable regional development*. CIHEAM—SciencesPo Les Presses, Paris.
- Daghir, N., Diab-El-Harake, M., & Kharroubi, S. (2021). Poultry production and its effects on food security in the Middle Eastern and North African region. *Journal of Applied Poultry Research*, 30(1), 100110.
- Donboli, J. H., & Kashefi, F. (2005). Doing business in the Middle East: A primer for US companies. Cornell Int'l LJ, 38, 413.

- Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024
- Eksport sawit Malaysia ke rantau MENA dijangka melonjak [Malaysia palm export to MENA region expected to soar]. Berita Harian, September 21, 2021
- El-Erian, M. A., & Fischer, S. (2000). Is MENA a region? The scope for regional integration. In *Economic and political impediments to Middle East peace* (pp. 70-86). Palgrave Macmillan, London.
- Food Act 1983 (Act 281) and its Regulations.
- Food and Agriculture Organization of the United Nations (FAO). (2018). Solutions to water challenges in the Middle East and North Africa region. https://www.fao.org/faostories/article/en/c/1150870/
- Food Code, Food Safety Department Dubai Municipality, 2020
- Fortin, N.D. (2009). Food Regulation: Law, Science, Policy, and Practice. New Jersey: John Wiley & Sons.
- GCC Food Industry Report, Alpen Capital, UAE, 2021
- Hamid, M. A., Hong, Y. C., Martony, O., & Devi, M. (2022). Halal in the food industry around the globe. *Journal of Halal Science and Technology*, 1(2), 12-21.
- Heine, P. (2004). Food culture in the Near East, Middle East, and North Africa. Greenwood Publishing Group.
- Ismail, A., Schøtt, T., Bazargan, A., Salaytah, B., Al Kubaisi, H., Hassen, M., ... & Kew, P. (2018). Background to the MENA Region. In *Entrepreneurship Education and Research in the Middle East and North Africa (MENA)* (pp. 19-31). Springer, Cham.
- Keulertz, M., Millugan, M., Woertz, E., Menichetti, E., & Biscop, S. (2016). *Material factors for the MENA Region: Data sources, trends and drivers*. Middle East and North Africa Regional Architecture.
- Kurniawati, D. A., & Cakravastia, A. (2023). A review of halal supply chain research: Sustainability and operations research perspective. *Cleaner Logistics and Supply Chain*, 100096.
- Majma' al-Lughah al-'Arabiyyah. 1992. *al-Mu'jam al-Wajiz*. Al-Qahirah: Wizarat al-Tarbiyyah wa al-Ta'lim.
- Malal, A. (2020). How multinational corporations adapt their marketing strategies to the North Africa and Middle East Region?. Rabat Business School.
- Nigatu, G., & Motamed, M. (2015). *Middle East and North Africa Region: An Important Driver of World Agricultural Trade*. USA: United States Department of Agriculture, Economic Research Service.
- OECD. (2018), "The Middle East and North Africa: Prospects and challenges", in *OECD-FAO Agricultural Outlook 2018-2027*, OECD Publishing, Paris.
- Parshotam, A. (2022). Regional Integration for the Arab Maghreb Union: Looking Beyond the Horizon. Regional program political dialogue South Mediterranean, no. 30, 1-30.
- Roden, C. (2000). The New Book of Middle Eastern Food. New York: Alfred A. Knopf.
- Sadler, M., & Magnan, N. (2011). Grain import dependency in the MENA region: risk management options. *Food Security*, 3, 77-89.
- Savvaidis, I. N., Al Katheeri, A., Lim, S. H. E., Lai, K. S., & Abushelaibi, A. (2022). Traditional foods, food safety practices, and food culture in the Middle East. In *Food Safety in the Middle East* (pp. 1-31). Academic Press.
- Savvaidis, I., & Osaili, T. (Eds.). (2022). Food safety in the Middle East. Academic Press.
- Selvaraju, R. (2013). Implications of climate change for agriculture and food security in the Western Asia and Northern Africa region. *Climate change and food security in West Asia and North Africa* (pp. 27-51). Springer Netherlands.

Vol. 14, No. 4, 2024, E-ISSN: 2222-6990 © 2024

Siam, G. (2009). Food Supply Crisis and the Role of Agriculture in the Middle East & North Africa (MENA) Region, IEMed, Barcelona.

Suhaimee, S., Abdullah, M. A., & Alias, S. (2019). Malaysia Model: Challenges in Halal Certification. *Halal Journal* 3(3), 79-96.

Trade Map, ITC. http://www.trademap.org/ (2023)

UNDESA, U. (2016). Department of Economic and Social Affairs. (2016). *Indicators of Sustainable Development: Guidelines and Methodologies*. United Nations, New York.

Waha, K., Krummenauer, L., Adams, S., Aich, V., Baarsch, F., Coumou, D., ... & Schleussner, C. F. (2017). Climate change impacts in the Middle East and Northern Africa (MENA) region and their implications for vulnerable population groups. Regional Environmental Change, 17, 1623-1638.

World Bank. 2019.

World Bank. 2022.

Yaakub, N.A. 2020. Halal Market Worldwide. In Halal Governance & Management Malaysia & Asean Countries: Intermediate to Advance. Nilai: USIM Press

#### Website

eservices.esma.gov.ae. Accessed on 5 July 2023 International Trade Administration, 2022 portal.jordan.gov.jo. Accessed on 8 July 2023 www.adafsa.gov.ae. Accessed on 8 July 2023 www.dm.gov.ae. Accessed on 5 July 2023 www.gso.org.sa/ar/. Accessed on 5 July 2023 www.moph.gov.qa. Accessed on 8 July 2023 www.onssa.gov.ma. Accessed on 8 July 2023 www.sfda.gov.sa. Accessed on 5 July 2023 www.sfda.gov.sa. Accessed on 5 July 2023 www.trademap.org