ANALYSIS OF EXPORT COMPETITION BY FACTOR DENSITIES OF MENA COUNTRIES

MENA ÜLKELERİNİN FAKTÖR YOĞUNLUKLARINA GÖRE İHRACAT REKABET ANALİZİ

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ÖZ

Today, the competitiveness of countries on a global scale is more determined by the product groups they produce and export. Countries that produce and export products with relatively high value added and innovation levels have higher global competitiveness. The study aimed to determine the external competitiveness of MENA countries between 2000 and 2018 using the Balassa index. The index values obtained by analyzing SITC Rev.3, 2 digit product groups were tried to show the extent to which the countries had competitive power in which product groups. In the study, analysis of the competitiveness of MENA countries on the basis of factor density shows that the countries in question have advantages in mainly Labor and raw material intensive products. MENA countries have no competitive power in the export of high value-added products. However, Jordan, Lebanon, Morocco, Egypt, Qatar, Israel, Tunisia and Kuwait have a competitive advantage in the export of some high-added value and R & D-based product groups, although they are not sufficient.

Key Words: Balassa Index, Export, Competition, MENA Countries

ABSTRACT

Günümüzde ülkelerin küresel çapta rekabet edebilirliği daha çok ürettikleri ve ihraç ettikleri ürün gruplarıyla belirlenmektedir. Katma değeri ve inovasyon düzeyi nispeten yüksek ürünleri üreten ve ihraç eden ülkeler daha yüksek küresel rekabet gücüne sahip olmaktadır. Çalışmada MENA Ülkeleri'nin 2000 ile 2018 yılları arasında, Balassa indeksi kullanılarak dış rekabet güçlerinin belirlenmesi amaçlanmıştır. SITC Rev. 3, 2 haneli ürün grubu analizi yapılarak elde edilen indeks değerleri ile ülkelerin hangi ürün gruplarında hangi ölçüde rekabet gücünün bulunduğu gösterilmeye çalışılmıştır. Çalışmada MENA ülkelerinin faktör yoğunluğu bazında rekabet gücü analizleri söz konusu ülkelerin ağırlıklı olarak emek ve hammadde yoğun ürünlerde üstünlüklerinin olduğunu göstermektedir. MENA ülkelerinin katma değeri yüksek ürünlerin ihracatında ağırlıklı olarak rekabet gücü bulunmamaktadır. Bununla birlikte, söz konusu ülkelerden Ürdün, Lübnan, Fas, Mısır, Katar, İsrail, Tunus ve Kuveyt yeterli düzeyde olmasa da bazı katma değeri yüksek ve Ar-Ge bazlı ürün gruplarının ihracatında rekabet avantajına sahiptir.

Anahtar Kelimeler: Balassa Endeksi, İhracat, Rekabet, MENA Ülkeleri

1.INTRODUCTİON

Today, the effort to reach global markets and increase its share in these markets has become inevitable. It is obvious that there is no difference between the local market and the world market in the process of globalization. Therefore, the importance of competition and export competitiveness is revealed in order to increase the benefits of the world economy as much as possible and to reduce/minimize the negativity. The world competition report shows that small countries have more power to benefit from competition than large countries. Because competition enables small companies to exit from a narrow market to an international market. But this rivalry has also made it imperative to face this order as one of the challenges of this century.

Today, competition is not only limited to the local market, but has become an important element globally. It has become a necessity for countries to provide information on internal dynamics and to gain competitive position relative to other countries. They are also not limited to the local environment of organizations and the geographic region to which they belong. Organizations can reach competitive positions only with the knowledge and skill level of the international field. Because the world has become such a market, the changes that have taken place affect all organizations and countries and are affected by the contribution it offers to every country and institution.

The theme of this study is to demonstrate the export competitiveness of MENA countries. The main reason for the selection of the MENA region is that it is an important global actor both in terms of income level and natural resources. Because, the MENA region comprises more than half of the world's oil res homes and close to half of its natural gas reserves. In addition, about 5 percent of the world's output is from this region. The study primarily addressed the national income and per capita national income sizes of MENA countries. Later, the Balassa index was used to determine the export competitiveness of MENA countries.

During the analysis phase of the study, there was difficulty in obtaining product group export data according to factor density of all MENA countries. Therefore, in the study, competitive analyses of MENA countries such as Djibouti, Iraq, Palestine, Libya and Syria were not conducted due to data constraints.

2. SOCIO-ECONOMIC CHARACTERISTICS OF MENA COUNTRIES

MENA is an acronym derived by combining the initials of the words" Middle East and North Africa". There are many different definitions about countries in the MENA region. Middle East term was used by Europeans in the 19. century by the region between North Africa (Egypt) and Southwest Asia. According to the World Bank, the MENA region covers the geographical area extending from the Atlantic Ocean to the Arabian Sea and the Arabian Peninsula from there to Iran.

There are 20 countries in the MENA region. These countries may be listed as: Egypt, Jordan, Lebanon, Morocco, Tunisia, Algeria, Iran, Yemen, the Syrian Arab Republic, Iraq, Saudi Arabia, Qatar, the Sultanate of Oman, the United Arab Emirates, Kuwait, Bahrain, Libya, Djibouti, Palestine and Israel. The MENA countries are Muslim outside Israel (Sözen, 2011).

Some of the socio-cultural characteristics of the countries mentioned are similar to each other. However, some of these countries are relatively rich and some are poor. There is political and economic stability in some of these countries and some of them are unstable. Geographically, the MENA can be divided into various regions. The four Northwest African countries (Morocco, Algeria, Tunisia and Libya) are referred to as the region of Morocco. This area also includes the Arab eastern region from Lebanon, Syria and Jordan. It also includes the Damascus region (Iraq, Israel and the Palestinian Territories).
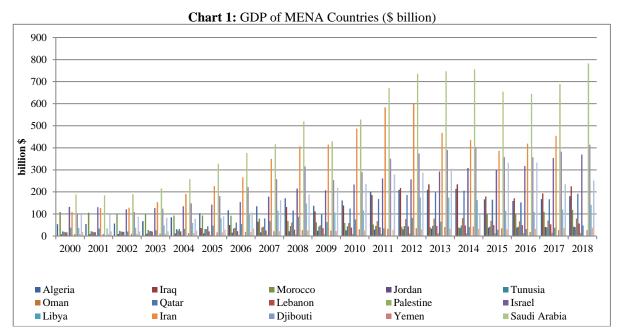
The average per capita annual income of some neighboring countries in this region is $ 1,000, while in some it is $ 10,000. The region, which has significant oil and natural gas reserves, hosts 6 percent of the world's population. The MENA region has an important economic and political position in the world due to its strategic location, large oil and natural gas reserves. Therefore, it is also the main source of global economic stability (Cem, 2001).

Over the past 20 years, exports have steadily increased in the region due to both trade liberalization and foreign trade agreements, and the share of exports in GDP has steadily increased. Unemployment rates, which increase by 2.8 million a year in the region, range between 10% and 25% among young people. While the GDP growth rate was 4.8% on average, the GDP growth rate per capita between 2000 and 2010 was 2.5% (O'Sullivan, Rey, & Mendez, 2011).
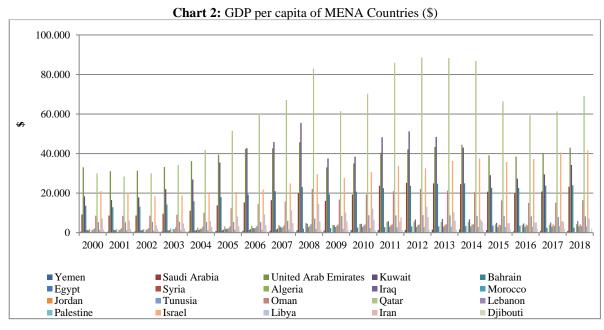
When the GDP values of the MENA countries are examined (Chart 1), Saudi Arabia has the highest income due to high oil prices in 2000-2016. It was followed by Iran, the United Arab Emirates, Egypt, Israel, Iraq, Algeria, Qatar, Kuwait, Morocco, Oman, Lebanon, Tunisia, Jordan, Libya, Bahrain, Yemen and Djibouti. GDP data on Syria could not be obtained because the data in question has not been available on the World Bank's official website since 2007.

Chart 1: GDP of MENA Countries ($ billion)

Source: It was created by us using the World Bank database

The MENA region can be divided into three main groups according to income level. Yemen is the country with the lowest per capita income per year at $ 1,000. Kuwait, Qatar, Saudi Arabia and Bahrain are the countries with the highest income among the countries of the region. The other 15 countries, which have different income groups according to production, tourism, services, agriculture and foreign trade sectors, generate an average annual income of between $ 1,000 and $ 3,500 (Devlin, 2010).

Chart 2: GDP per capita of MENA Countries ($)

Source: It was created by us using the World Bank database

When Chart 2 is examined, Qatar ranks first with the region's highest annual average GDP per capita, while Qatar is followed by the United Arab Emirates, Israel, Kuwait, Bahrain and Saudi Arabia. Oman, Turkey, Lebanon, Iran and Libya are among the middle-income countries. Iraq, Algeria, Tunisia and Egypt are

middle-income countries, while Morocco, Palestine and Djibouti are low-income countries. Yemen, on the other hand, is the lowest-income country in the region in terms of annual gross domestic product per capita.

3. LITERATURE REVIEW

Erkan (2012) calculated the Balassa index and conducted an export competitiveness of Syria and Turkey for 2001-2008. The results of the study show that when 66 goods groups are taken into account, Syria has a competitive advantage in exports of 9 goods groups. Most of the goods groups in which Syria has an export competitive advantage are raw materials, except livestock, food, and fuel. Turkey has a strong export competitiveness compared to Syria.

Ishchukova and Smutka (2013) used the Balassa index, the Vollrath index, and the Lafaye index to demonstrate Russia's export competitiveness in agricultural products and food products for the period 1998-2010. According to the study, the Balassa index identifies a number of products that Russia has export competitiveness over the entire period. Among these products are cereals (wheat, barley, etc.), by - products (e.g. wheat bran), processed products (grain preparations, etc.) and also include oilseeds, vegetable oils and chocolate.

Donna et al. (2017) measured the competitiveness of MENA countries between 2000-2010. They used the symmetric Balassa index in their analyses and emphasized that the countries in question had different riches and competitiveness, both in terms of natural resource and labor.

Obadi (2017) investigated Yemen's competitiveness in exports to the United States has been measured using the Balassa index. SITC 2-digit product classification was used in the study covering the period 2000-2011. Apart from a few energy product groups, Yemen does not have a competitive advantage.

Beyene (2017) conducted a comparative competitiveness analysis of Sub Saharan African countries and MENA countries. In the study using the Balassa index (RCA), it was stated that Sub Saharan countries have lower economic integration with the world than MENA countries. However, both countries have a competitive advantage in oil exports.

A study by Gupta and Kumar (2017) analyzed Rwanda's export competitiveness using the Balassa index. The results show that Rwanda has a comparative advantage in primary products. However, there has been a decline in Rwanda's Balassa index in several other primary export products, due to increased competitiveness of other countries in the export of the products in question.

When the literature was examined, it was observed that there was a limited number of studies on the export competitiveness of MENA countries. In this context, it is thought that this work may contribute to the literature.

4. COMPETITION ANALYSIS WITH BALASSA INDEX

The global economic crisis has shown that countries with low national competitiveness are vulnerable to external shocks. Therefore, the issue of competitiveness is important and closely related to the future development of any country (Kharlamova and Vertelieva, 2013). Since the main economic objective of the countries is to raise the living standards of their citizens, the aim of these countries can only be achieved by shifting their resources to more efficient sectors. In this perspective, global competitiveness and productivity are key concepts (Bedir, 2009).

Competition is a more important concept in countries and regions where the level of economic development is relatively weak compared to other geographical areas. There is a close link between competitiveness and the economy's ability to create wealth compared to other economies. The traditional approach to measuring this looks at changes in GDP per capita compared with changes in other economies. Past developments in competitiveness have shown that through productivity growth and international trade, all countries can increase GDP and competitiveness per capita (Silvia, 2006). Competitiveness often depends on high living standards, increased employment opportunities and the country's ability to maintain its responsibilities internationally.

There are many indices used to measure competitiveness. The most important of these is Balassa index (RCA). The index realistically reveals their superiority or disadvantage by comparing them with the world in the aforementioned sectors of the country (Erkan, 2011). The Balassa Index is formulated as follows (Balassa, 1965) :

$$RCA_{jkt} = \frac{X_{kt}^{j} \Big/ X_{t}^{j}}{X_{kt}^{w} \Big/ X_{t}^{w}}$$

In this formula, 'j' represents the country, 'k' represents the product group, 't' represents related year and 'w' represents the world. While the fractional share represents the domestic specialization in the mentioned form, the denominator also shows the world's specialization. The fact that the index value is greater than 1 shows the competitiveness of the country's exports of that product, vice versa. If the RCA coefficient is between 1 and 2, it has a weak competitiveness, between 2 and 4 it has competitiveness at medium level, and at 4 and above it has a strong competitiveness (Hinloopen & Marrewijk, 2001).

In this paper, which covers the period 2000-2018, the Balassa index was used to measure the export competitiveness of the MENA countries. However, the export competitiveness of 66 product groups was calculated using the SITC Rev.3, 2 digit classification in the study

Table 1. Balassa Index Analysis of MENA Countries (By Factor Densities)

Country	COMPETITIVE ADVANTAGE BY FACTOR DENSITY
Jordan	R→10 C→4 L→3 RD→3 U→1
Lebanon	R→11 C→4 L→9 RD→4 U→1
Morocco	R →11 L →4 RD →2
Egypt	R →12 C→3 L →8 RD →2 U→2
Qatar	R →3 RD →1 U→1
Oman	R →6
Bahrain	R →5 C →1
Algeria	R →3
Israel	R →5 C →2 L →2 RD →9 U→1
Tunisia	R →7 C →1 L →3 RD →2
United Arab Emirates	R →3 U →2
Saudi Arabia	R →2 RD →3
Kuwait	R →3 RD →1
Yemen	R →3 C →1 L →1
Iran	R →2

Source: It was created by us using the Comtrade database (https://comtrade.un.org/)
L: Labour-intensive goods
R: Raw material-intensive goods
C: Capital-intensive goods
RD: R & D-based goods
U: Factor Density Unspecified Goods

The results of the analysis of the Balassa index show that the highest countries of export competitiveness are Jordan, Lebanon, Morocco, Israel, Tunisia and Egypt respectively. These countries are followed by Qatar, Saudi Arabia, Kuwait, Oman, Bahrain, Algeria, United Arab Emirates, Yemen and Iran.

The Balassa index results show that the export competitiveness of MENA countries is mainly concentrated in raw material intensive products. The most important reason for this situation is that the countries in question have rich natural resources such as oil and natural gas. However, there is a competitive disadvantage in the export of high value-added and innovative product groups in these countries. Because when the Balassa index scores of the said countries are examined, it is observed that there are no competitive advantages in capital intensive and R & D based product group exports except for a few countries.

The results of the analysis of the Balassa index, which allows export competitiveness to be measured, show that the countries with the highest export competitiveness are Jordan, Lebanon, Morocco, Tunisia, Israel and Egypt. Considering the results of the said countries in the Balassa index:

➢ Jordan has a strong competitive advantage in 8 product groups, a moderate advantage in 3 product groups, and a weak competitive sdvantage in 9 product groups.

➢ Lebanon has a strong competitive advantage in 7 product groups, a moderate advantage in 11 product groups and a weak competitive advantage in 7 product groups.

➢ Morocco has strong level in 6 product groups, moderate level in 1 product groups, weak level competitive advantage in 7 product groups.

➢ Egypt has strong level in 5 product groups, medium level in 10 product groups, weak level competitive advantage in 10 product groups.

➢ Israel has a strong level in 2 product groups, a moderate level in 2 product groups, and a weak competitive advantage in 10 product groups.

➢ Tunisia has strong level in 2 product groups, moderate level in 2 product groups, weak level competitive advantage in 9 product groups.

Although not adequate, some countries have competitiveness in the export of R & D-based product groups with high added value within MENA countries. These countries are Jordan, Lebanon, Morocco, Egypt, Israel, Tunisia, Kuwait and Qatar. Morocco from these countries has competitiveness in the export of "inorganic chemical goods and items made from mines not mentioned elsewhere" product groups. Israel has competitiveness in the export of "organic chemical products, inorganic chemical goods, non-initial plastics, communication, sound recording devices and tools, materials made from mines not mentioned elsewhere, other vehicles, occupational, scientific, control instruments and devices not mentioned elsewhere" product groups. Qatar has competitiveness in the export of "first-form plastics" product groups. Kuwait has competitiveness in the export of "first-form plastics" product groups. Lebanon has competitiveness in the export of "inorganic chemical goods, plastics that are not in the first way, power-producing machines and vehicles" product groups. Egypt has competitiveness in the export of "inorganic chemical goods, plastics in the first form" product groups. Tunisia has competitiveness in the export of "inorganic chemical goods, electrical machinery, devices and instruments, etc. parts, parts" product groups. Jordan has competitiveness in the export of "inorganic chemical goods, medical and pharmaceutical products, plastics that are not in the first way" product groups.

5. CONCLUSION

The aim of this study is to measure and compare of export competitiveness of MENA countries. In this study, which covers the period 2000-2018, Balassa index was used for analysis of export competitiveness of the countries in question.

According to the Balassa index scores, when the export competitiveness of the MENA region is evaluated in general, it is observed that there is a limited number of products that have competitive advantage. Furthermore, the product groups in which the countries of the region have a competitive advantage in their exports are mainly raw material intensive. The most important reason for this is that the region has rich natural resources such as oil and natural gas. The said region's export competitiveness is based on low value-added product groups. In other words, the countries mentioned are outward dependent on products that include R & D and innovation.

According to Balassa index scores, the countries that have a competitive advantage in exports of R & D based product groups with high added value within MENA countries are Jordan, Morocco, Kuwait, Lebanon, Egypt, Israel, Tunisia and Qatar. However, while there is no competitive advantage in R & D-based product exports, Bahrain and Yemen have a competitive advantage in exports of capital-intensive product groups.

The relative low international competitiveness of the MENA countries indicates that the main element to the industrial and trade policies of these countries is price and non-price competition. However, MENA countries need to ensure product diversification in their exports in order to become an important player globally. Because export competitiveness is based mainly on raw material intensive products such as oil and natural gas, the decline in the world demand and prices of these products will result in significant crises in these countries. In this context, MENA countries need to change their factor hardware in the direction of R & D, technology and innovation along with product diversification in their exports.

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