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Intra-Industrial Trade Outlook in Eurasian Economic Union Countries

Avrasya Ekonomi Birliđi Ülkelerinde Endüstri İçi Ticaretin Görünümü

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ABSTRACT

Intra-industry trade is a theory that was put forward after the 1970s and is based on the fact that countries both export and import the same product. The high level of intra-industry trade also affects the competitiveness of countries. Countries with intense intra-industry trade have a high competitiveness. Because, with product differentiation, both exporting and importing of a product directly affects the welfare of a country. In the study, intra-industry trade analysis of the Eurasian Economic Union (EAEU) countries for 2020 was made. SITC Rev.3 single-digit product classification (food & live animals, beverages and tobacco, crude materials ex food/fuel, mineral fuel/lubricants, animal/veg oil/fat/wax, chemical products n.e.s, manufactured goods, machinery and transportation equipment, miscellaneous manuf arts and commodities nes) were used. The results of the analysis show that the country with the highest intra-industry trade within the EAEU is Belarus. Belarus has high intra-industry trade in 9 out of 10 product groups. Belarus is followed by Russia and Kazakhstan. Russia and Kazakhstan have intra-industry trade in 4 product groups out of 10 product groups.

Keywords: Eurasian Economy Union, Intra-Industry Trade, Grubel-Lloyd Index

ÖZET

Endüstri içi ticaret 1970'li yıllardan sonra ortaya atılan ve ülkelerin aynı ürünü hem ihraç hem ithal etmesine dayanan bir teoridir. Endüstri içi ticaretin yüksekliği ülkelerin rekabet gücünü de etkilemektedir. Endüstri içi ticaretin yoğun olduğu ülkeler yüksek bir rekabet gücüne sahiptir. Zira, ürün farklılaştırılması ile bir ürünün hem ihraç hem ithal edilmesi bir ülkenin refahını da doğrudan etkilemektedir. Çalışmada Avrasya Ekonomi Birliđi ülkelerinin 2020 yılı için endüstri içi ticaretinin analizi yapılmıştır. SITC Rev.3 tek haneli ürün sınıflandırması (gıda ve canlı hayvan, içecekler ve tütün mamulleri, hammadde, mineral yağlar/yakıtlar, hayvansal ve bitkisel yağlar, kimyasal ürünler, imalar malları, makine ve ulaşım ekipmanları ile çeşitli el sanat ürünleri, emtialar) kullanılmıştır. Analiz sonuçları EAEU içinde en yüksek endüstri içi ticarete sahip olan ülkenin Belarus olduğunu göstermektedir. Keza, Belarus 10 ürün grubu içerisinde 9'unda yüksek oranda endüstri içi ticarete sahiptir. Belarus'un ardından Rusya ve Kazakistan gelmektedir. Rusya ve Kazakistan 10 ürün grubu içerisinde 4 ürün grubunda endüstri içi ticarete sahiptir.

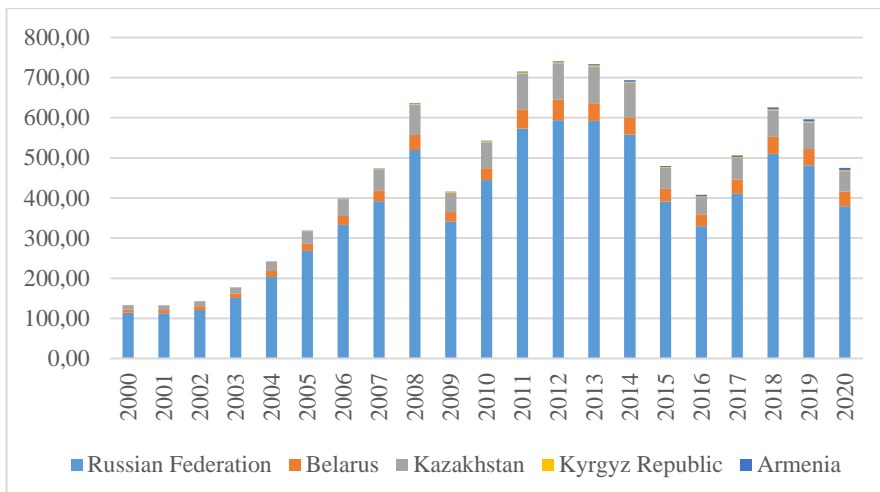
Anahtar Kelimeler: Avrasya Ekonomi Birliđi, Endüstri İçi Ticaret, Grubel-Lloyd Endeksi

1. INTRODUCTION

With the dissolution of the Union of Soviet Socialist Republics (USSR) in 1991, many integrations were established under the leadership of Russia, the largest power in the region. The Eurasian Economic Union is one of them. This integration, which was first established in 2001 under the name of the Eurasian Economic Community (EEC), took the name of the Eurasian Economic Union (EAEU) in 2015 and expanded the scope of cooperation. The member countries of this union are Russia, Belarus, Kazakhstan, Kyrgyzstan and Armenia.

There are many factors in the integration of countries. Because it is in favor of those countries that countries that are close to each other culturally and geographically cooperate economically. For this reason, the EEC provided a customs union and was transformed into an economic union with the aim of creating a single economic area. Thus, to improve the living standards of people in countries committed to integration, to create favorable conditions for sustainable economic development; the creation of a common market for goods, services, capital and labor and the comprehensive modernization of national economies within the global economy are among the most important objectives of the EAEU (UIA, 2022).

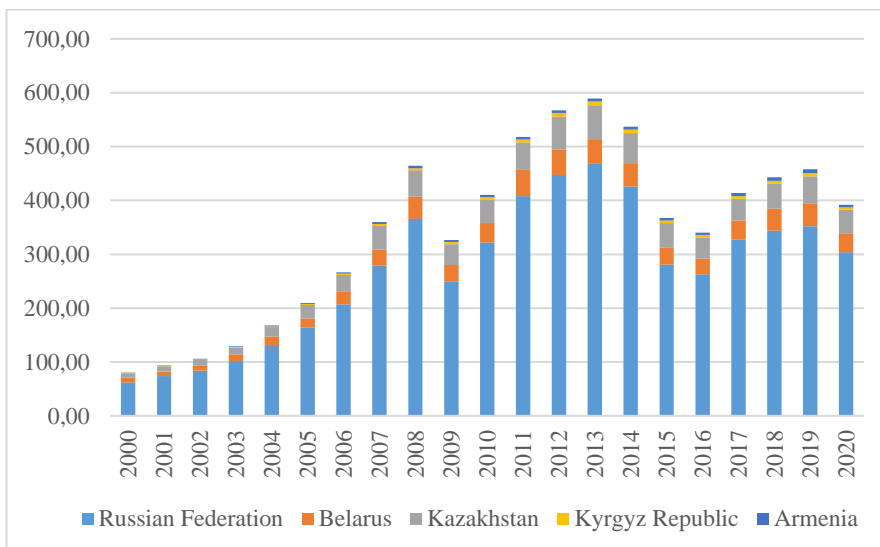
Undoubtedly, the foreign trade of the countries that are in an economic integration is necessary to examine the trade structure of that integration. Thus, export data of EAEU countries between 2000 and 2020 are analyzed in Graph 1 and import data in Graph 2.



Graph 1: EAEU Countries Export Values (2000-2020, Current Billion \$)

Source: (World Bank Data, 2022)

When the export values of the EAEU Countries between 2000-2020 are analyzed (Graph 1), it is seen that Russia, the strongest country in the region, is the leader in exports. Russia's political and economic superiority is also reflected in export data. The country that follows Russia is Kazakhstan. The least exporting countries of the Union are Kyrgyz Republic and Armenia.



Graph 2: EAEU Countries Import Values (2000-2020, Current Billion \$)

Source: (World Bank Data, 2022)

When the import values of the EAEU Countries between the years 2000-2020 are examined (Graph 2), it is seen that Russia ranks first in imports, just as it is in exports. It is seen that Armenia and Kyrgyz Republic, which have relatively less share in the foreign trade volume within the integration, import more than their exports and have foreign trade deficit. However, the foreign trade volume of the union countries, which are still a very new formation, should not be underestimated.

In order for national economies to increase their effectiveness on a global scale, they need to increase their competitiveness. One of the most important factors in increasing the competitiveness of countries is foreign trade. The breakthroughs that countries will make in their foreign trade will expand their economies and increase their visibility and trade volume in the world. According to the estimates of the Eurasian Economic Commission, the member countries of this union will increase their national income by 13% and their foreign trade up to 80% depending on the diversification of production and exports until 2030 (Gurova, Platonova, & Maksakova, 2018). That's why the member countries' giving importance to the concept of intra-industry trade will increase both the growth and development level of the countries. For this reason, in this study, the intra-industry trade of the EAEU has been analyzed with the Grubel-Lloyd Index and the EAEU, which is a very new integration, has been examined in this context.

2. LITERATURE REVIEW

When the literature examples are examined, there are many studies on intra-industry trade. However, these examples focus more on specific products and product groups or sectors. Azgün et al. (2016) analyzed intra-industry trade between Turkey and Turkish countries in Central Asia. The results of this study covering the years 1995-2013 reveal that intra-industry trade and competitiveness have improved between Turkey and the countries in Central Asia. Pak (2018) investigated the essence of intra-industry trade in the manufacturing industry sector of the EAEU in 2011-2016. The results of the analysis revealed that the EAEU has made tangible progress in the development of intra-industry trade in the chemical industry and manufacturing. Mišević (2021) analyzed the foreign trade balance, intra-industry trade, trade openness and their share in GDP of the EAEU countries for the years 2014-2018. The results of the analysis show that the intra-industry trade of the EAEU is high, but the foreign trade openness is quite high.

Luptakova (2021) examined the trade structure between the European Union (EU) and EAEU between 2008-2019, using both the declared comparative advantage coefficient and the Grubel-Lloyd index. The results of the analysis show that there is a long-term negative trade balance between the two country groups. The sanctions process between the EU and Russia negatively affected the trade relations with the EAEU and of course intra-industry trade.

Saygin (2021), both in Central Asian countries and SITC Rev. 3 analyzed single-digit product groups as well as intra-industry trade of double-digit product groups in the manufacturing industry (SITC Rev. 3, 6 group). Analysis results show that intra-industry trade is high in Central Asian countries in general. Lingzhi (2021) analyzed trade complementarity, competitiveness and intra-industry trade between Uzbekistan and the EAEU. Analysis results revealed that trade complementarity between Uzbekistan and EAEU is high and intra-industry trade is also in certain sectors (SITC 0, SITC 3, SITC 6, SITC 9 group). Kaštáková and Luptáková (2021) analyzed Slovakia's intra-industry trade with the EAEU in their study. They concluded that Slovakia has high intra-industry trade with Russia, Belarus and Kazakhstan, among the EAEU countries. On a product basis, intra-industry trade was found to be high in five sectors (SITC 2, SITC 4, SITC 5, SITC 6, SITC 8 groups).

Agarwal and Betai (2021) examined India's intra-industry trade in manufactured goods. The results of the analysis reveal that it has higher intra-industry trade potential in mid-technology manufactured goods and if India can increase its productivity, it will also increase its competitiveness. Kowalska et al. (2021) analyzed the competitiveness and intra-industry trade of the Visegrad Group (V4) countries in the agricultural products sector. According to the results of the analysis, Poland shows the best performance among the V4 countries in terms of both competitiveness and intra-industry trade in agri-food products.

Studies in the literature show that the concept of intra-industry trade is a concept that should be considered. This study gives information about the trade structure of EAEU countries with other countries and measures the competitiveness of the union members in a sense. In this respect, it is thought that this article will make an important contribution to the literature.

3. INTRA-INDUSTRY TRADE: THEORETICAL FRAMEWORK

Intra-industry trade (IIT) is when a country simultaneously exports and imports a good. That is, it is the value of the total trade remaining after deducting the absolute value of its net exports or imports. Intra-industry trade provides many benefits to countries in international trade and increases the competitiveness of countries. Thus, it enables countries to benefit from wider markets. For a comparison between countries and industries, metrics are expressed as a percentage of each sector's exports and imports. Index values range from 0 to 1. As the values approach 1, intra-industry trade increases. If a country exports and imports a particular product in equal amounts, the index is high (Mišević, 2021).

Grubel and Lloyd (1971) systematized the concept of intra-industry trade in their study. Thus, in intra-industry trade, countries both export and import products that are similar but not the same, that is, differentiated products, and many products that can be close substitutes in consumption or production (Scott, 1975). The Grubel-Lloyd index used to measure intra-industry trade is formulated as follows (Grubel & Lloyd, 1971):

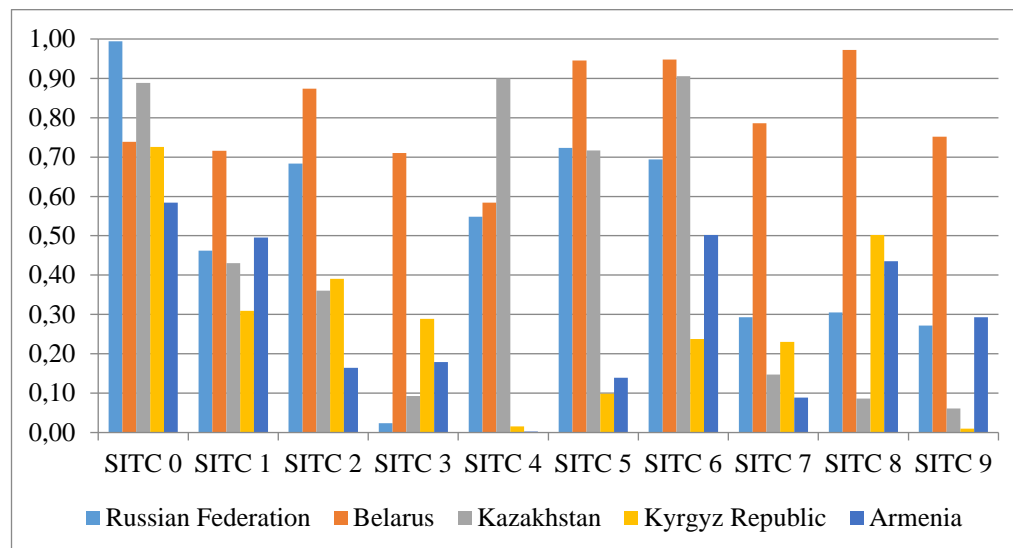
$$1 - \frac{|X_{ij} - M_{ij}|}{X_{ij} + M_{ij}} \quad (1)$$

X_{ij} shows the exports of country i in sector j , and M_{ij} shows the imports of country i in sector j . If the index results are close to 1, it indicates that the intra-industry trade is high in that country, and close to 0 indicates that the intra-industry trade is low in that country. If the index results are 0, it shows that that country only imports or exports only in that sector. In other words, an index value of 0 indicates that there is no intra-industry trade in that country.

If the index value is 1, it means that the intra-industry trade is complete in that country. In other words, exports and imports are made at the same rate in the sector in question.

4. ANALYSIS OF INTRA-INDUSTRY TRADE IN THE COUNTRIES OF THE EURASIAN ECONOMIC UNION

Standard International Trade Classification (SITC Rev. 3) in the study, one-digit product classification for 2020 (SITC 0 group food & live animals, SITC 1 group beverage and tobacco, SITC 2 group crude materials ex food/fuel, SITC 3 group mineral fuel/lubricants, SITC 4 group animal/veg oil/fat/wax., SITC 5 group chemical product n.e.s, SITC 6 group manufactured goods, SITC 7 group machinery and transportation equipment, SITC 8 group miscellaneous manuf arts and SITC 9 group commodities nes) data were analyzed. Intra-industry trade scores of EAEU countries are as in Graph 3.



Graph 3: Grubel-Lloyd Index Results for EAEU Countries (2020)

Source: Calculated using data from the COMTRADE database.

When the analysis results are examined in terms of product groups; It is seen that the country with the highest intra-industry trade in the food and livestock group (SITC 0 code) is Russia. Russia is followed by Kazakhstan and Belarus. The country with the highest score in the beverages and tobacco products group (SITC 1) is Belarus. In other countries, intra-industry trade seems to be low. In the raw material group (SITC 2 code), Belarus is the country with the highest score. While Belarus still has the highest score in the mineral fuels (oil, natural gas, etc.) and oils group (SITC 3 code), it is seen that the index value of Russia is almost zero. This situation shows that there is no intra-industry trade in Russia, that is, it only exports these products. The country with the highest score in the animal and vegetable oils group (SITC 4 code) is Kazakhstan. The zero score of Armenia in this group indicates that there is no intra-industry trade, only imports or exports. The country with the highest score in the chemical products group (SITC 5 code) is Belarus. Belarus is followed by Russia and Kazakhstan. The countries with the highest scores in the manufacturing goods group (SITC 6 code) are Belarus and Kazakhstan. Intra-industry trade in manufactured goods is quite high in these countries. There is almost no intra-industry trade in any country except Belarus in the machinery and transportation equipment group (SITC code 7), the miscellaneous handicrafts group (SITC code 8), and the commodity group (SITC 9 code). Especially in the commodity group, since Kyrgyzstan has an important place in gold exports, it is predictable that there is no intra-industry trade in this group.

When intra-industry trade is analyzed on a country basis, the results are as follows:

- ✓ Russia Federation's intra-industry trade in is high in 4 out of 10 product groups (food & live animals, crude materials ex food/fuel, chemical products and manufactured goods).
- ✓ Belarus' 9 out of 10 product groups of have high intra-industry trade. Intra-industry trade is low only in animal/veg oil/fat/wax product group.
- ✓ Kazakhstan's intra-industry trade is high in 4 out of 10 product groups (food & live animals, animal/veg oil/fat/wax, chemical products and manufactured goods).
- ✓ Kyrgyz Republic's intra-industry trade is high in 1 out of 10 product groups (just food & live animals).
- ✓ Armenia's intra-industry trade is high in 3 out of 10 product groups (food & live animals, beverages and tobacco and manufactured goods).

5. CONCLUSION

In the globalizing world, countries have begun to understand the importance of foreign trade much more and they have realized the contribution of free foreign trade to the economies of the countries. For this reason, the import and export portfolios of countries have expanded and foreign trade policies have begun to be implemented in order to increase the welfare of the country. The concept of intra-industry trade, which will meet the needs of everyone in the country and expand the foreign trade volume, instead of a foreign trade policy based only on exports, has become a policy frequently implemented by countries.

The fact that the countries have high intra-industry trade shows that they apply product differentiation much more successfully. For example, a country that specializes in car production can also import cars. This situation contributes to meeting the needs of people, stimulating demand and encouraging free foreign trade. The aim of free foreign trade is to increase the welfare level of people as well as economic growth. Therefore, the implementation of product differentiation will increase the welfare of the citizens of the country. This is very important for consumers who want to buy different versions of the same product according to their tastes and preferences.

The results of the analysis in the study reveal that the country with the highest intra-industry trade among the members of the union is Belarus. However, when the import and export values of the EAEU countries between 2000 and 2020 are examined (Graph 1 and Graph 2), the country with the highest export and import was Russia. This fact proves that the total exports and imports do not affect the intra-industry trade of the countries. Sectorally, it can be said that the competitiveness of Belarus is relatively higher than Russia. Because, high intra-industry trade in 9 out of 10 product groups distinguishes Belarus positively. Although Russia and Kazakhstan are getting closer to Belarus in this sense, it is clear from the analysis results that Belarus understands the importance of intra-industry trade much better.

The existence of intra-industry trade is very important in terms of increasing the global competitiveness of countries. Because a country's export and import of the same or substitutable products at the same time affects the supply and demand side of that good. Therefore, countries should attach importance to product differentiation and implement foreign trade policy accordingly in order to increase their competitiveness. Thus, intra-industry trade will both enable countries to grow economically and help increase welfare in the country.

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