

TÜRKİYE'S INTERNATIONAL COMPETITIVENESS AND EXPORT PERFORMANCE IN THE TEXTILE SECTOR: COMPARATIVE ANALYSIS WITH THE WORLD'S TOP TEXTILE EXPORTER COUNTRIES¹

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ABSTRACT

The textile industry plays a pioneering role in the development of developing countries. Türkiye in Eurasia, Germany and Italy in Europe, the United States in North America, China, India, Pakistan, Twain ve South Korea in Asia are among prominent countries in the textile sector. The textile industry maintains its importance in developed countries as well as developing countries. This study aims to examine the competitiveness of the textile sector, which is one of the locomotive sectors in Türkiye and its export performance over rival countries which are the prominent countries in the textile export in the world market. Revealed Comparative Advantage (RCA) Index and Comparative Export Performance (CEP) Index were used in this study. RCA and CEP indices were calculated using data obtained from Uncomtrade database for the period 2001-2020. According to the calculated Revealed Comparative Advantage (RCA) Index results, It was determined that Türkiye had a competitive advantage in two-digit textile product group SITC 65 and in 7 of the 9 three-digit sub-product groups SITC (652, 653, 655, 656, 657,658, 659) had a competitive advantage, while the competitiveness in the SITC 651 sub-product group remained at the marginal limit. According to result of Comparative Export Performance Index, It was seen that Türkiye has an advantage in export against all analyzed countries except Pakistan in SITC two-digit textile product group.

Key Words: Textile Industry, International Competitiveness, Revealed Comparative Advantage Index, Comparative Export Performance Index.

Jel Codes: F1, F10, F14.

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TÜRKİYE'NİN TEKSTİL SEKTÖRÜNDEKİ ULUSLARARASI REKABET GÜCÜ VE İHRACAT PERFORMANSI: DÜNYANIN ÖNDE GELEN TEKSTİL İHRACATÇISI ÜLKELERİ İLE KARŞILAŞTIRMALI ANALİZ

ÖZET

Tekstil sektörü, gelişmekte olan ülkelerin kalkınmasında öncü bir rol oynamaktadır. Avrasya'da Türkiye, Avrupa'da Almanya ve İtalya, Kuzey Amerika'da Amerika Birleşik Devletleri, Asya'da Çin, Hindistan, Pakistan, Tayvan ve Güney Kore tekstil sektöründe öne çıkan ülkelerdir. Tekstil sektörü gelişmekte olan ülkeler kadar gelişmiş ülkeler içinde önemini korumaktadır. Bu çalışma, Türkiye'nin lokomotif sektörlerinden biri olan tekstil sektörünün rekabet gücünü ve dünya pazarında tekstil ihracatında öne çıkan rakip ülkelere göre ihracat performansını incelemeyi amaçlamaktadır. Çalışmada, Açıklanmış Karşılaştırmalı Üstünlükler (RCA) ve Karşılaştırmalı İhracat Performans (CEP) endeksleri kullanılmıştır. 2001-2020 dönemine ait Uncomtrade veri tabanından elde edilen veriler kullanılarak RCA ve CEP endeksleri hesaplanmıştır. Hesaplanan Açıklanmış Karşılaştırmalı Üstünlükler (RCA) endeksi sonuçlarına göre, Türkiye'nin SITC 65 iki basamaklı tekstil ürün grubunda ve SITC üç basamaklı 9 alt ürün grubunun 7'sinde (652, 653, 655, 656, 657,658, 659) rekabet avantajına sahip olduğu, SITC 651 alt ürün grubunda ise rekabet gücünün marjinal sınırdaki kaldığı tespit edilmiştir. Karşılaştırmalı İhracat Performans Endeksi sonuçlarına göre, Türkiye'nin SITC iki haneli tekstil ürün grubunda Pakistan hariç analiz edilen tüm ülkelere karşı ihracatta avantajlı olduğu görülmüştür.

Anahtar Kelimeler: *Tekstil Sektörü, Uluslararası Rekabet Gücü, Karşılaştırmalı Üstünlük Endeksi, Karşılaştırmalı İhracat Performans Endeksi.*

Jel Codes: *F1, F10, F14.*

1. INTRODUCTION

Today, the textile sector is one of the oldest, largest and most globalized industries in the world (Keane and te Velde, 2008). The textile sector is an industrial branch playing an important role in the economic development process of developing countries because of the added value, employment and export opportunities it offers (Çetin and Ecevit, 2008). Furthermore, textile sector provides employment opportunities for millions of people all over the world and constitute an important export item for a number of developing countries (Tandon and Reddy, 2013).

The textile sector is considered as the driving force of the economy in many developing countries thanks to its export potential and employment opportunities it offers. Today, this branch of industry plays an important role in the industrialization process of developing countries experiencing capital shortages and having cheap labor. The textile sector is also of paramount importance for the Turkish economy. The textile sector is the locomotive of the industry in Türkiye and the highest employment rate is in this sector. This situation further increases the importance of competition in this sector. Türkiye

has to increase its production, product quality and competitiveness to succeed in the increasingly competitive environment of the globalizing world (Kaya, 2013).

The concept of competitiveness, which can be defined in many different ways, has been defined by economists as "better performance of a country compared to its competitors as a manifestation of its national efficiency and living standard". The OECD defines competitiveness as "the ability of a country to produce product and services that can meet the needs of international markets while simultaneously maintaining and expanding the real incomes of its citizens under free and fair market conditions." Michael E. Porter, on the other hand, used the concept of comparative advantage in relation to the concept of competitiveness, and stated that both concepts are related to comparative costs in essence. In this context, it can be argued that a country's having comparative advantage in international markets may also mean that it has competitiveness (Kanat, 2018).

The increase in the international competitiveness of an economy leads to a chain of developments. This increase leads to an increase in profitability by causing an improvement in production and exports, thereby accelerating investments and improving employment (Adıgüzel, 2011). With regard to the Turkish economy, increasing the international competitiveness of the country can make it possible to find permanent solutions to chronic problems such as unemployment and current account deficit and to level up to developed economies, to have industries and businesses that have global competitiveness, innovative and competitive in global markets, especially in the fields of advanced technology. In the textile sector, where significant developments have been experienced in recent years with the effect of the globalization process, the cost advantage of the countries with basic inputs is no longer the factor determining the competitive advantage in the sector, technology, brand and design advantage have become main determinants of competition.

China, India, Türkiye, Germany, USA, Italy, Vietnam, Pakistan, South Korea and Taiwan, selected as examples in the article, are the world's leading textile exporters and countries with a significant market share in world textile industry exports. China, India and Türkiye have a wide production range in the textile sector. China, India, Vietnam and Pakistan are among the important countries in the world textile industry, thanks to their cheap labor force. Developed countries such as Germany, USA and Italy are pioneers in offering technologically advanced and innovative products in the textile sector.

The textile sector is of great importance for the Turkish economy. In this respect, textile sector is the locomotive of our country's industry and the highest employment rate is in this sector. This situation further increases the importance of competition in this sector. Türkiye has to increase its production, product quality and competitiveness to succeed in the increasingly intense competitive environment of the globalizing world (Kaya, 2013). The sector, which ranks first in our country in terms of parameters

such as its share in GDP, foreign trade potential and employment, brings us to the forefront in the global market.

The aim of the study is to reveal the competitiveness of Türkiye's textile sector and its export performance compared to rival countries that stand out in textile exports in the world market by using Revealed Comparative Advantage (RCA) and Comparative Export Performance (CEP) indices. In this context, the study will first include the general view of competition in the textile industry, and then the current situation of the world and Turkish textile sector will be examined in the context of exports. After reviewing the literature on the subject, the method of the study will be discussed and the empirical findings will be analyzed. In the conclusion section of the study, policy recommendations will be expressed to ensure that the sector can maintain/increase its competitiveness.

2.COMPETITIVENESS IN THE TEXTILE INDUSTRY

Competitiveness is defined as the ability of countries to offer the products and services they produce to international markets while also trying to expand the real income of citizens in free and settled market conditions (Çivi, 2001). Competitiveness relates to employment opportunities, an increased standard of living and the capability of countries to fulfill their international obligations. Although there are many determinants of competitiveness, determinants of competitiveness can be listed as technology, human capital, organizational structure, capital-financial sector and the role of the state in the economy.

The determinants of competitiveness are divided into two as internal and external determinants. The quality, cost and price of the product produced by the company, efficiency, profitability, organization and management structure, innovation are leading external, firm-related, determinants. Economies of scale in the sector, labor productivity, capacity utilization rate and financing conditions in capital markets can be listed among external determinants of competitiveness (Eroğlu and Özdamar, 2005: 3).

The concept of competitiveness is of paramount importance in the textile sector as in all other sectors. In this sector, abundancy of raw materials and intensive-cheap labor are determinants of competitiveness. In addition to these factors, one of the other main determinants of the cost of production is energy consumption. As plenty of water is consumed in the production of textile products, cost of the water, which varies from country to country, also influences the cost of textile production. Apart from the essential inputs in textile production, land prices and construction costs, which vary from country to country affect the competitiveness, albeit indirectly. In addition to the essential inputs that directly or indirectly affect the competitiveness in the textile sector, product quality, level of technology, level of branding, the factory organization, the availability of qualified personnel, yarn smoothness and quality, awareness about market conditions, marketing and proximity to the market constitute other important factors affecting competitiveness in the sector (Uğur, 2004).

Today, competitiveness is the basic condition for the success of all national economies and their sound structure. In line with the increasing trade relations, the country's economies need to increase their competitiveness to survive in global markets. As a matter of fact, almost all economies have determined increasing their international competitiveness as the main goal within the framework of sustainable development. The increase in competitiveness paves the way for the increase in company profitability in the country's economy, in the production and export potential and eventually in level of wealth.

Competitiveness requires intense efforts to bring exporting countries and companies to an effective position in the global economy, and can also make them vulnerable to financial risks. For example, in an intensely competitive environment, price decreases can reduce profitability. Being able to compete in a competitive environment and increasing market share may require updating the old infrastructure, keeping up with technological developments may be costly, and investments made to cope with technological change may be financially risky.

Manufacturing industry is regarded as one of the main driving forces of the growth and development stages of the countries. This can be verified by the fact that countries with higher levels of competitiveness in the manufacturing industry are considered as developed countries. In this context, manufacturing industry plays an undeniable role in the development phase of Türkiye, which a developing country. Enhancing the international competitiveness of the manufacturing industry sector in Türkiye plays a key role in achieving a sustainable growth by increasing the national income, employment and export potential of our country as well as eliminating macroeconomic problems such as current account deficit and unemployment.

Undoubtedly, the textile sector is one of the locomotive sectors in the Turkish manufacturing industry given to its share in GDP, its contribution to employment and high export potential. Thanks to the high net foreign exchange revenues yielded every year, the sector also makes positive contributions to the foreign trade balance and curbs the expansion of the current account deficit. With its production capacity exceeding domestic demand, this sector ranks first among groups of products marketed by Türkiye to international markets. In this respect, the share of the textile sector in Türkiye's international competitiveness is undeniable.

When the textile and clothing sectors are considered together, the textile and clothing sector has expanded its production capacity in our country to exceed domestic demand, especially since the 1950s. Since this period, the sector, which started production for foreign markets, gradually increased its export. In particular, with the implementation of incentive programs by the State Planning Organization (SPO) within the scope of the first five-year development plans covering the period between 1963 and 1967 and the period between 1968 and 1972, the textile and clothing sector has experienced export-oriented development in the 1980s and has become Employment Strategy, 2016). According to TurkStat data, while 313 million dollars of textile and clothing were exported in 1976, this level increased gradually in

the following years. It reached 452 million dollars in 1980, 4.7 billion dollars in 1990, 10 billion dollars in 2000 and 26 billion dollars in 2015 (Pehlivanoğlu and Göçeri, 2018), finally 30 billion dollars in 2021 (ICAC, 2022). Textiles and clothing are among the most important sectors of the Turkish foreign trade. These sectors had a 16% share in total export volume in 2021 (Republic of Türkiye Ministry of Trade, 2021).

3.WORLD TEXTILE EXPORT AND TÜRKİYE

The textile sector has played a locomotive role in the industrialization phase of today's developed countries. Likewise, the sector plays an important role in the development and exports of developing countries.

Table 1. Exporting Countries in the World Textile Sector (Top 10) (Million USD) (SITC 65)

	Country	2019 (USD)	2019 (%)		Country	2020 (USD)	2020 (%)		Country	2021 (USD)	2021 (%)
1	China	119.575	38,89	1	China	154.091	46,96	1	China	145.569	41,08
2	India	17.189	5,59	2	India	15.042	4,58	2	India	22.233	6,27
3	Germany	13.714	4,46	3	Germany	13.848	4,22	3	Türkiye	15.165	4,28
4	USA	13.359	4,35	4	Türkiye	11.697	3,56	4	Germany	14.885	4,20
5	Türkiye	11.777	3,83	5	USA	11.377	3,47	5	USA	13.122	3,70
	Italy	11.755	3,82	6	Vietnam	9.798	2,99	6	Italy	11.952	3,37
7	South Korea	9.135	2,97		Italy	9.734	2,97	7	Vietnam	11.556	3,26
8	Vietnam	9.073	2,95	8	South Korea	7.745	2,36	8	Pakistan	9.188	2,59
9	Twain	8.507	2,77	9	Pakistan	7.112	2,17	9	South Korea	8.683	2,45
10	Pakistan	7.696	2,50	10	Twain	7.051	2,15	10	Twain	8.555	2,41
Total Share of the Top 10 Countries			72,14	Total Share of the Top 10 Countries			75,42	Total Share of the Top 10 Countries			73,63

Source: Uncomtrade Database.

When the prominent countries in the world textile sector exports are analyzed, it is seen that China, India, Türkiye, Germany and the USA are among the top five countries. According to 2021, China is the leading textile exporter with a 41.08 percent share in world exports of textiles. China is followed by India 22.2 billion US \$ (6,27 %), Türkiye 15.2 billion US \$ (4,28 %), Germany 14.9 billion US \$ (4,20 %) and USA 13.1 billion US \$ (3,70 %). Türkiye is the third largest textile exporter of the world with a share of 4,28 % in 2021. According to Table 1, while Türkiye ranked fifth in the world textile exports with 11.8 billion dollars in 2019, it was observed that Türkiye ranked fourth with 11.7 billion dollars in 2020 and third with 15.2 billion dollars in 2021, rising to the top of the world textile export rankings. According to Table 1, it is possible to say that the top 10 countries in world textile exports realize 3/4 of the world textile exports with an average share of 75% in the world's total textile exports (Table 1).

When the top ten countries in world textile exports are analyzed in Table 1, it is seen that developed countries such as Germany, Italy, USA and South Korea are in the first place in textile exports as well as developing countries. This situation can be said that developed countries have not withdrawn from the textile sector, but have continued their investments and have a presence in this sector.

4. LITERATURE REVIEW

There are many studies aimed at measuring the competitiveness of the Turkish textile industry. Some studies in the literature can be summarized as follows.

Aynagöz Çakmak (2005) analyzed the competitiveness of the Turkish textile and ready-made clothing industry in the 1989-2003 period using Balassa's Revealed Comparative Advantage (RCA) index and Vollrath's competitiveness indices. In the study, according to the Balassa index, Türkiye's competitive power is quite high in both SITC two- and three-digit product groups, but according to Vollrath's index results, the competitive power is lower in SITC two-digit product groups. The study reveals that the international competitiveness of the ready-made clothing industry is higher than the textile industry, however, its competitiveness has decreased in almost all sub-product groups in recent years.

Çoban and Kök (2005) comparatively analyzed the competitiveness of the textile industry of Türkiye and EU countries for the period 1989-2001 with the help of the Revealed Comparative Advantage index. In the study, it was determined that the competitiveness of the Turkish textile industry is quite high in terms of both SITC two-digit and SITC three-digit product groups and that the sub-product groups have a competitive structure. However, especially in recent years, it has been observed that there have been significant declines in the competitiveness of almost all product groups.

Erkan (2013) revealed the international competitiveness of the Turkish textile and ready-made clothing industry for the period 1993-2009 by using the Revealed Comparative Advantage index, Vollrath index and Export-Import Ratio index. The study revealed that, on the basis of SITC four-digit product groups, Türkiye has a competitive advantage in 43 of the total 59 sub-product groups in the textile industry and in 34 of the total 37 sub-groups in the ready-made clothing industry.

Gacaner Atış (2014) analyzed the competitiveness of the Turkish textile and apparel industry compared to rival countries in the EU (27), USA, Middle East-North Africa market. Competitiveness was demonstrated using the Revealed Comparative Advantage, Relative Competitive Advantage (RC) and Comparative Export Performance (CEP) indices on the basis of SITC Rev.3 three-digit product groups for the period 1995-2012. As a result of the analysis, it was concluded that the sector maintains its importance for Türkiye with a decreasing trend; It has been determined that the competitive advantage in certain products continues in the EU (27), USA and Middle East-North African markets, but this advantage is gradually decreasing.

Şahin (2015) analyzed the competitiveness of Türkiye and China in the textile and ready-made clothing industry in the period 1995-2013 with the help of the Revealed Comparative Advantage index on the basis of two- and three-digit product groups. According to the findings of the study, it was seen that Türkiye and China have high competitiveness in the textile and ready-made clothing industry. As a result of the analysis, it has been determined that the competitiveness of the Turkish textile and clothing industry is higher than China in terms of the SITC two-digit product group.

Başkol (2018) analyzed the international competitiveness of the Turkish textile and ready-made clothing industry for the period 1989-2015 with the help of indices developed by Balassa and Vollrath on the basis of two- and three-digit product groups. In the study, it is pointed out that the Turkish textile and ready-made clothing industry has reached a certain competitive power in the world market, but the decline in the competitiveness of the ready-made clothing industry.

Kanat (2018) analyzed the international competitiveness of the Turkish textile and ready-made clothing industry between 2007 and 2016 using Balassa, Vollrath and Lafay indices. According to the Balassa index, the Turkish textile and ready-made clothing industry has a high and medium competitive advantage in 10 of the 14 two-digit sub-product groups. According to the Vollrath index, it has been determined that the Turkish textile and ready-made clothing industry has a competitive advantage and specializes in 9 out of a total of 14 two-digit textile and ready-made clothing sub-product groups. It has been observed that the sub-product groups with competitive disadvantage belong to the textile sector.

5. DATA, METHOD AND ANALYSIS

In this study, the comparative advantage and export performance of Türkiye's textile sector were analyzed by using Balassa's Revealed Comparative Advantage index and Donges et al. (1982) 's Comparative Export Performance Index for the period between 2001 and 2021 in the world market. The data were obtained from the United Nations Uncomtrade database.

In the study, initially the logarithmic form of Balassa's Revealed Comparative Advantage Index was used. The logarithmic formula of the Revealed Comparative Advantage index can be shown as follows:

$$RCA_{ij} = \ln(X_{ij} / X_{it}) / (M_{ij} / M_{it}) \quad (1)$$

RCA_{ij} indicates revealed comparative advantage index of the country i for good j , X_{ij} stands for product j exports of the country i , X_{it} stands for the total exports of the country i ; M_{ij} stands for the imports of the product j of the country i , and M_{it} indicates the total imports of the country i .

Accordingly, If $\ln(RCA) > 0.50$, country i has a competitive advantage in good j , $-0.50 < \ln(RCA) < 0.50$ implies that country i 's competitiveness in good j is at the marginal margin, $\ln(RCA) < -0.50$ indicates that country i has a competitive disadvantage in good j .

The second index used in the study is the Comparative Export Performance Index. The Comparative Export Performance Index developed by Donges et al. (1982) measures the comparative advantage and disadvantage of a country in exporting a product or product group over its competitor country/countries in a given market. The Comparative Export Performance Index (CEP) is formulated as follows:

$$CEP_{irj} = (X_{ij} / X_{it}) / (X_{rj} / X_{rt}) \quad (2)$$

CEP_{irj} indicates the comparative export performance coefficient of country i in terms of product j over competitor country r ; X_{ij} indicates the export of product j to the relevant market by country i ; X_{it} stands for the total export of country i to the relevant market, X_{rj} stands for the export of competitor country r for product j to the relevant market, and X_{rt} indicates the total export of competitor country r to the relevant market.

Accordingly, if $CEP > 1$, it is interpreted that country i has a comparative advantage in exports of product over competitor country r in the relevant market, and if $CEP < 1$, it means that country i has no comparative advantage in exports of product over competitor country r in the relevant market.

6. FINDINGS

In the study, firstly the international competitiveness of the Turkish textile sector in the world market was ascertained by presenting $\ln(RCA)$ values, the calculated logarithmic form of Revealed Comparative Advantage Index.

The $\ln(RCA)$ index values that present the revealed comparative advantage of Türkiye in the world market in the textile sector for the period between 2001 and 2021 are given in Table 2 on the basis of SITC 65 main product group and SITC (651, 652, 653, 654, 655, 656, 657, 658, 659) sub-product groups.

Table 2. $\ln(RCA)$ Index Coefficients in Türkiye's Textile Sector

Years	65	651	652	653	654	655	656	657	658	659
2001	1,00	0,49	0,58	0,78	-0,07	1,45	2,11	0,08	3,97	1,90
2002	0,76	0,00	0,15	0,70	-0,18	1,30	1,95	0,03	4,27	1,96
2003	0,81	-0,07	0,13	0,87	-0,28	1,27	1,93	0,05	4,22	2,07
2004	0,87	0,10	0,27	0,87	-0,47	1,34	2,06	0,19	4,15	1,94
2005	0,93	0,05	0,31	1,05	-0,33	1,67	1,96	0,14	3,89	1,99
2006	0,97	0,09	0,44	1,10	-0,28	1,93	1,62	0,28	3,62	1,97
2007	0,86	-0,30	0,58	1,07	-0,16	1,97	1,58	0,19	3,32	2,10
2008	0,93	-0,18	0,64	1,19	-0,12	1,98	1,46	0,11	3,21	2,13
2009	0,81	-0,23	0,43	0,94	-0,23	1,77	1,22	-0,02	3,04	2,35
2010	0,80	-0,25	0,38	0,88	-0,16	1,71	1,16	0,21	3,07	2,43
2011	0,93	-0,03	0,51	0,99	-0,14	1,55	1,32	0,47	2,98	2,69

2012	0,98	-0,15	0,84	1,00	-0,24	1,92	1,31	0,52	2,95	2,86
2013	1,04	-0,08	0,84	1,11	-0,41	1,83	1,21	0,45	3,02	2,93
2014	0,96	-0,20	0,86	1,01	-0,53	1,72	0,98	0,41	2,82	3,01
2015	0,92	-0,24	0,99	1,01	-0,63	1,60	0,94	0,41	2,60	3,31
2016	0,89	-0,33	0,99	1,01	-0,58	1,63	0,88	0,53	2,62	3,66
2017	0,90	-0,30	0,87	1,07	-0,56	1,57	0,83	0,57	2,77	3,96
2018	0,89	-0,24	0,88	1,03	-0,70	1,56	0,65	0,62	2,80	3,92
2019	0,79	-0,41	0,81	0,83	-0,80	1,49	0,36	0,56	2,86	3,92
2020	1,06	-0,20	1,02	0,92	-0,64	1,74	0,90	0,68	2,86	4,34
2021	1,04	-0,07	0,97	1,07	-0,50	1,80	0,91	0,69	2,90	4,22

Source: Calculated Using Uncomtrade Data.

It was observed that the Turkish textile sector had a competitive advantage in the SITC 65 two-digit main product group in the world market throughout the whole period. When the 9 three-digit sub-product groups belonging to the Turkish textile sector were examined, it was determined that Türkiye had a competitive advantage in the sub-product groups SITC 653, 655,656 (excluding 2019), 658, 659 throughout the whole period, and that its competitiveness remained at the marginal limit in the SITC 651 sub-product group. When the export and import data for the period 2001-2021 is examined, it can be said that the SITC 651 sub-product group had a foreign trade deficit throughout the entire period except 2001, and the net importer and therefore foreign-dependent structure of this product group affected the competitive power to remain at the marginal limit. While the competitiveness was at the marginal limit in the SITC 654 sub-product group in the period between 2001 and 2013, it was seen that there was a competitive disadvantage in the period between 2014 and 2021, except for 2021. It is possible to say that the Turkish textile sector gained a competitive advantage in the SITC 652 sub-product group after 2010 and in the SITC 657 sub-product group after 2015 (Table 2).

Secondly, on the basis of the main product group of the textile sector and 9 sub-product groups, the export performance of the Turkish textile sector in comparison with selected countries that stand out in the world textile sector exports was revealed with the help of the Comparative Export Performance Index (CEP).

Table 3. Türkiye's Comparative Export Performance (CEP) Index Coefficients in SITC 65 Product Group

Years	China	India	Germany	U.S.	Italy	Vietnam	Pakistan	South Korea	Taiwan
2001	1,99	1,00	6,51	8,76	2,51	5,37	0,26	1,73	1,56
2002	1,88	1,02	6,45	7,72	2,47	4,68	0,25	1,76	1,63
2003	1,81	1,03	6,63	7,41	2,39	4,75	0,23	2,00	1,80
2004	1,81	1,04	6,87	6,90	2,32	4,21	0,21	2,39	1,77
2005	1,79	1,16	6,90	7,00	2,38	4,31	0,22	2,64	1,88
2006	1,76	1,21	6,85	7,26	2,37	3,34	0,20	2,85	2,03
2007	1,82	1,26	7,15	7,82	2,49	3,06	0,20	2,99	2,11
2008	1,56	1,25	6,47	7,42	2,38	2,86	0,20	2,90	1,96

2009	1,52	1,47	6,61	8,06	2,59	2,15	0,20	3,00	1,95
2010	1,61	1,35	7,13	8,26	2,71	1,86	0,21	3,35	2,22
2011	1,61	1,57	7,31	8,54	2,84	2,05	0,22	3,58	2,23
2012	1,56	1,37	7,14	8,30	2,76	2,13	0,20	3,32	2,12
2013	1,58	1,36	7,48	8,64	2,93	2,18	0,20	3,54	2,27
2014	1,60	1,32	7,48	8,57	2,90	2,14	0,21	3,66	2,32
2015	1,54	1,13	7,47	7,94	2,87	2,12	0,20	3,64	2,13
2016	1,50	1,21	7,52	8,22	2,95	2,16	0,20	3,69	2,34
2017	1,46	1,22	7,41	8,04	2,97	2,12	0,20	4,12	2,44
2018	1,41	1,19	7,11	8,08	2,89	1,99	0,20	4,13	2,44
2019	1,36	1,22	7,09	8,02	2,98	1,90	0,20	3,87	2,52
2020	1,16	1,26	6,90	8,67	3,53	1,98	0,22	4,56	3,40
2021	1,56	1,20	7,40	9,00	3,47	1,96	0,21	5,00	3,52

Source: Calculated Using Uncomtrade Data.

It has been observed that Türkiye has a comparative advantage over all countries other than Pakistan in SITC 65 (Textile yarn, woven hosiery related products) two-digit main product group exports. It has been observed that the comparative advantage is gradually increasing over South Korea and Taiwan, while the comparative advantage is gradually decreasing over Vietnam. It is noteworthy that Türkiye had a steady competitive advantage over China, India, Germany, the USA and Italy during the period (Table 3).

Table 4. Türkiye's Comparative Export Performance (CEP) Index Coefficients in SITC 651 Sub-Product Group

Years	China	India	Germany	U.S.	Italy	Vietnam	Pakistan	South Korea	Taiwan
2001	2,53	0,65	7,38	11,12	2,54	3,25	0,22	3,00	1,97
2002	1,98	0,53	5,66	7,71	1,95	2,41	0,19	2,14	1,41
2003	1,88	0,54	5,65	6,41	1,77	2,52	0,19	1,99	1,30
2004	2,14	0,58	5,13	6,22	1,78	2,23	0,17	2,46	1,23
2005	2,01	0,63	4,92	5,76	1,70	1,99	0,18	2,63	1,13
2006	1,99	0,64	5,29	5,65	1,82	1,68	0,15	3,17	1,30
2007	1,74	0,55	4,67	5,11	1,71	1,33	0,14	2,79	1,20
2008	1,57	0,57	6,37	4,33	1,70	1,13	0,15	2,88	1,20
2009	1,76	0,83	7,00	5,06	1,90	0,72	0,14	3,18	1,17
2010	1,85	0,58	7,82	4,95	1,94	0,62	0,14	3,34	1,38
2011	1,99	0,73	8,89	4,69	2,17	0,70	0,15	3,84	1,47
2012	1,95	0,60	9,02	5,03	2,06	0,71	0,12	3,39	1,42
2013	1,99	0,52	9,29	5,09	2,14	0,70	0,12	3,53	1,51
2014	2,09	0,55	9,47	4,97	2,18	0,66	0,14	3,74	1,62
2015	2,20	0,50	10,21	4,65	2,28	0,70	0,15	3,84	1,78
2016	2,11	0,57	10,79	4,99	2,43	0,67	0,18	4,06	1,99
2017	2,10	0,59	11,18	5,10	2,62	0,66	0,19	4,44	2,15
2018	1,95	0,57	11,58	5,34	2,63	0,68	0,20	4,48	2,05
2019	1,90	0,66	11,47	5,04	2,64	0,67	0,21	3,96	2,16
2020	2,41	0,65	11,65	6,06	2,86	0,77	0,25	4,81	3,03

2021	2,72	0,66	14,71	7,06	3,37	0,76	0,27	5,33	3,80
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Source: Calculated Using Uncomtrade Data.

Türkiye has a comparative advantage in SITC 651 (woven yarns) sub-product group exports over other countries except Pakistan, India and Vietnam. Accordingly, it was observed that Türkiye did not have a comparative advantage over Pakistan and India during the whole period. While Türkiye had a comparative advantage over Vietnam between 2001 and 2008, it was observed that Türkiye has lost its competitive advantage since 2009. While it is determined that Türkiye has increased its comparative advantage over Germany, South Korea and Taiwan, it is possible to say that it has maintained its comparative advantage over China (Table 4).

Table 5. Türkiye's Comparative Export Performance (CEP) Index Coefficients in SITC 652 Sub-Product Group

Years	China	India	Germany	U.S.	Italy	Vietnam	Pakistan	South Korea	Taiwan
2001	1,38	0,73	7,81	7,74	1,94	10,28	0,15	3,89	3,54
2002	1,25	0,82	8,18	6,81	1,75	8,23	0,13	3,98	3,71
2003	1,10	0,85	7,49	7,34	1,46	13,71	0,11	3,96	4,10
2004	1,29	1,08	8,48	7,16	1,51	21,40	0,10	4,69	3,95
2005	1,29	1,36	8,67	8,30	1,53	27,07	0,09	4,88	4,51
2006	1,28	1,42	8,67	10,05	1,53	22,82	0,09	5,34	4,78
2007	1,55	1,67	11,07	16,01	1,87	23,65	0,10	6,88	6,19
2008	1,22	1,45	9,74	16,34	1,78	26,44	0,08	7,62	5,97
2009	1,28	1,82	10,10	16,70	2,06	28,68	0,09	8,47	6,84
2010	1,24	1,87	10,77	18,44	2,07	26,34	0,09	9,16	8,53
2011	1,19	1,73	10,51	16,92	2,26	18,28	0,08	9,18	8,54
2012	1,16	1,34	10,15	17,86	2,20	19,84	0,07	8,70	8,26
2013	1,11	1,43	10,81	21,04	2,43	23,73	0,07	9,69	9,51
2014	1,18	1,25	10,74	18,31	2,42	23,31	0,07	9,95	10,45
2015	1,15	1,08	12,04	19,01	2,66	17,01	0,07	9,72	9,71
2016	1,12	1,17	12,73	21,89	2,74	17,99	0,07	10,17	11,67
2017	1,04	1,11	11,65	19,33	2,59	12,34	0,06	11,37	11,77
2018	1,01	0,99	11,40	17,70	2,54	7,32	0,06	11,22	11,53
2019	0,98	0,84	11,39	17,48	2,50	5,65	0,06	9,76	12,28
2020	1,17	0,81	11,75	25,28	2,83	7,63	0,06	7,82	16,48
2021	1,16	0,76	12,05	22,28	2,59	5,26	0,06	8,58	14,27

Source: Calculated Using Uncomtrade Data.

Türkiye has a comparative advantage over other countries except Pakistan and India in exporting SITC 652 (Cotton woven) sub-product group. Türkiye had a comparative advantage over India between 2004 and 2018, but it has been observed that Türkiye has lost its competitive advantage since 2018. It was observed that Türkiye's export performance values increased over Germany, Italy, the USA, South Korea and Taiwan and it maintained its comparative over China, except for 2019. In comparison with

Vietnam, it was observed that the comparative advantage first increased and then decreased; in other words, it followed a fluctuating course (Table 5).

Table 6. Türkiye's Comparative Export Performance (CEP) Index Coefficients in SITC 653 Sub-Product Group

Years	China	India	Germany	U.S.	Italy	Vietnam	Pakistan	South Korea	Taiwan
2001	1,50	1,37	6,21	8,74	2,37	6,60	0,35	0,82	0,86
2002	1,60	1,32	7,29	8,73	2,59	4,75	0,41	0,99	1,07
2003	1,50	1,17	7,95	9,70	2,63	5,17	0,34	1,28	1,21
2004	1,29	1,12	7,46	9,01	2,53	4,81	0,41	1,53	1,20
2005	1,41	1,49	8,21	10,14	2,84	5,47	0,98	1,81	1,33
2006	1,53	1,72	8,89	12,37	3,03	4,45	0,76	2,22	1,47
2007	1,61	1,60	9,47	13,95	3,13	3,67	0,53	2,36	1,51
2008	1,51	1,33	9,16	15,33	3,10	3,40	0,86	2,30	1,44
2009	1,50	1,14	9,51	17,44	3,25	3,18	0,62	2,39	1,41
2010	1,50	1,32	10,10	17,11	3,28	3,17	0,48	2,47	1,53
2011	1,30	1,52	10,20	17,41	3,22	3,37	0,49	2,39	1,44
2012	1,24	1,65	9,85	15,55	3,01	3,69	0,58	2,20	1,41
2013	1,21	1,68	10,14	15,35	3,03	4,36	0,65	2,22	1,50
2014	1,18	1,57	10,16	15,33	2,89	4,81	0,65	2,22	1,50
2015	1,09	1,30	10,39	14,26	2,82	5,24	0,79	2,24	1,41
2016	1,00	1,47	10,10	13,53	2,68	5,83	0,91	2,20	1,48
2017	0,98	1,47	9,61	12,82	2,56	5,95	0,78	2,41	1,52
2018	0,96	1,74	9,63	13,22	2,48	5,45	0,66	2,41	1,50
2019	0,83	1,44	9,23	11,83	2,38	4,81	0,59	2,08	1,44
2020	0,90	1,49	8,85	11,51	2,46	5,63	0,48	2,53	1,72
2021	0,82	1,72	9,53	11,93	2,40	4,77	0,43	2,56	1,70

Source: Calculated Using Uncomtrade Data.

It is possible to say that Türkiye had no comparative advantage over Pakistan and China in SITC 653 (Woven from synthetic-artificial fibers) sub-product group exports. Türkiye did not have a comparative advantage over Pakistan throughout the period. While Türkiye had a comparative advantage over China until 2017, it was observed that it lost its comparative advantage since 2017. On the contrary, Türkiye has had comparative advantage over South Korea since 2003 and over Taiwan since 2002, and was able to maintain its comparative advantage over these rival countries almost unchanged. During the whole period, it was determined that Türkiye had a comparative advantage over India, Germany, the USA, Italy and Vietnam (Table 6).

**Table 7. Türkiye's Comparative Export Performance (CEP) Index Coefficients in SITC
 654 Sub-Product Group**

Years	China	India	Germany	U.S.	Italy	Vietnam	Pakistan	South Korea	Taiwan
2001	0,76	0,38	2,15	9,69	0,29	5,74	9,61	1,69	2,18
2002	0,79	0,38	2,50	8,35	0,31	5,02	20,98	1,70	2,12
2003	0,82	0,39	2,78	8,19	0,32	5,74	12,78	2,17	1,80
2004	0,73	0,34	2,50	7,61	0,29	7,15	8,21	2,04	1,27
2005	0,80	0,41	2,64	8,68	0,29	7,04	1,38	2,16	1,63
2006	0,76	0,44	2,48	6,37	0,27	7,22	1,41	2,32	1,56
2007	0,90	0,54	2,87	7,32	0,30	5,50	2,46	2,87	1,77
2008	0,90	0,52	2,61	6,97	0,29	6,64	8,74	2,67	1,77
2009	0,81	0,59	2,46	5,76	0,28	7,37	5,59	2,75	1,54
2010	0,81	0,53	2,62	6,22	0,28	8,05	3,88	3,09	1,08
2011	0,79	0,76	2,65	6,75	0,27	6,53	5,79	2,95	1,18
2012	0,74	0,91	2,43	5,68	0,25	6,36	3,28	2,75	1,08
2013	0,69	0,91	2,30	5,06	0,23	6,55	5,31	2,68	0,94
2014	0,62	0,81	2,24	4,83	0,20	5,38	6,21	2,36	0,84
2015	0,59	0,66	2,17	3,70	0,19	4,86	2,68	1,94	0,79
2016	0,69	0,71	2,24	4,04	0,19	4,88	2,93	2,42	0,80
2017	0,70	0,79	2,22	3,78	0,19	5,20	3,92	2,70	0,66
2018	0,65	0,91	2,23	4,13	0,19	5,07	4,88	3,04	0,72
2019	0,58	0,75	2,03	3,42	0,17	5,23	2,13	2,46	0,77
2020	0,85	0,68	2,13	3,61	0,22	5,75	1,74	3,12	0,76
2021	0,85	0,75	2,38	4,35	0,26	7,10	1,66	3,74	0,88

Source: Calculated using Uncomtrade data.

It was observed that Türkiye did not have a comparative advantage over China, India and Italy during the whole period in SITC 654 (cotton, synthetic, non-artificial fiber fabrics) sub-product group exports, whereas it had a comparative advantage over Germany, USA, Vietnam, Pakistan and South Korea. While Türkiye had a comparative advantage over Taiwan between 2001 and 2012, it was observed that it lost its competitive advantage since 2013. It is noteworthy that while the export performance over Pakistan had been up and down, the comparative advantage decreased (Table 7).

It is seen that Türkiye had a comparative advantage over other competing countries other than Italy in exports of sub-product group SITC 655 (fabrics of polyester fibers). Türkiye achieved comparative advantage over Pakistan since 2002, South Korea since 2007 and Taiwan since 2006 (except for 2015). While Türkiye's comparative advantage over China was stable, it is noteworthy that its competitive advantage over Germany and the United States increased, while its competitive advantage over India and Vietnam decreased (Table 8).

**Table 8. Türkiye's Comparative Export Performance (CEP) Index Coefficients in SITC
655 Sub-Product Group**

Years	China	India	Germany	U.S.	Italy	Vietnam	Pakistan	South Korea	Taiwan
2001	1,49	10,30	4,85	5,86	0,38	28,05	0,96	0,46	0,43
2002	1,22	13,31	5,04	4,73	0,37	27,62	1,13	0,45	0,46
2003	1,27	10,52	5,17	3,71	0,33	7,92	1,63	0,51	0,56
2004	1,39	11,49	5,69	3,43	0,37	12,22	1,62	0,64	0,62
2005	1,62	17,59	7,22	3,87	0,43	14,08	1,87	0,82	0,79
2006	1,84	14,85	9,18	5,57	0,49	7,46	2,76	0,99	1,00
2007	2,01	17,18	10,86	6,53	0,54	6,09	2,52	1,11	1,15
2008	1,93	13,90	10,19	7,17	0,53	5,42	2,52	1,11	1,11
2009	1,79	15,50	11,16	11,12	0,56	5,46	2,73	1,10	1,16
2010	2,02	17,04	13,26	13,37	0,62	5,18	2,87	1,40	1,48
2011	1,95	12,92	13,13	15,37	0,61	5,03	5,21	1,44	1,38
2012	1,87	14,16	14,35	15,32	0,62	5,21	6,98	1,38	1,26
2013	1,79	13,68	14,72	15,29	0,61	5,14	8,04	1,43	1,21
2014	1,69	12,53	14,99	15,64	0,59	4,61	7,02	1,49	1,20
2015	1,50	10,72	14,79	13,66	0,60	3,16	5,09	1,45	0,96
2016	1,49	10,01	15,49	15,46	0,63	3,01	5,82	1,50	1,11
2017	1,32	8,89	14,90	16,90	0,63	2,74	7,78	1,70	1,17
2018	1,22	6,81	15,39	17,02	0,63	2,20	7,95	1,72	1,22
2019	1,15	6,23	15,81	17,05	0,64	1,94	5,45	1,71	1,24
2020	1,42	5,59	17,56	19,34	0,66	2,21	5,47	2,19	1,67
2021	1,39	4,95	19,54	20,43	0,67	2,21	4,45	2,55	1,71

Source: Calculated Using Uncomtrade Data.

Türkiye has a comparative advantage over all countries in SITC 656 (cordage, label, coat of arms and similar weaving) sub-product group exports. It was observed that Türkiye had a comparative advantage over India, Germany, USA, Italy, Vietnam, Pakistan and South Korea throughout the whole period. While Türkiye's competitive advantage over India, Germany, Italy, Vietnam and Pakistan decreased, it is noteworthy that its competitive advantage over South Korea increased. It is seen that Türkiye's competitive advantage over China gradually decreased between 2001 and 2006, and it maintained its competitive advantage between 2007 and 2021, except for 2019. Türkiye's competitive advantage over Taiwan, except for the period between 2015 and 2019, followed a stable course. It was determined that since 2020 Türkiye regained the competitive advantage it lost over Taiwan in 2015 (Table 9).

**Table 9. Türkiye's Comparative Export Performance (CEP) Index Coefficients in SITC
 656 Sub-Product Group**

Years	China	India	Germany	U.S.	Italy	Vietnam	Pakistan	South Korea	Taiwan
2001	6,83	4,08	12,37	7,54	5,40	18,15	6,15	1,64	1,79
2002	5,88	3,79	11,75	6,95	4,97	13,31	7,60	1,71	1,84
2003	4,89	4,39	12,14	8,01	4,60	16,22	6,62	1,80	1,82
2004	4,09	5,06	13,05	7,51	4,75	9,36	6,73	2,31	1,89
2005	3,07	4,99	13,18	8,46	4,38	8,72	7,93	2,37	1,77
2006	2,02	3,81	10,96	7,90	3,78	9,57	9,31	2,24	1,58
2007	1,80	3,29	10,77	8,37	3,79	8,79	6,03	2,56	1,59
2008	1,57	2,60	8,29	7,58	3,47	7,38	5,04	2,48	1,25
2009	1,43	2,59	7,14	6,21	2,89	5,63	2,51	2,13	1,02
2010	1,48	2,48	7,13	6,24	2,75	6,22	4,06	2,32	1,08
2011	1,50	3,32	7,46	7,38	2,67	7,64	5,06	2,82	1,10
2012	1,53	2,86	7,84	8,05	2,73	6,19	4,98	2,86	1,08
2013	1,45	2,14	7,29	7,69	2,54	5,88	4,33	2,83	1,03
2014	1,34	1,93	7,18	7,62	2,40	5,24	3,73	2,82	1,04
2015	1,36	1,78	6,81	7,29	2,58	5,22	3,86	3,07	0,88
2016	1,28	1,69	6,49	7,34	2,48	5,21	2,56	2,99	0,88
2017	1,14	1,63	5,93	6,59	2,27	4,66	2,68	3,59	0,92
2018	1,03	1,65	5,60	6,16	2,03	3,85	2,28	3,60	0,91
2019	0,90	1,30	5,04	5,69	1,92	3,39	1,89	3,08	0,81
2020	1,23	1,46	5,43	7,11	2,16	3,75	1,78	4,04	1,10
2021	1,11	1,79	5,46	7,25	2,18	3,33	2,22	4,30	1,26

Source: Calculated Using Uncomtrade Data.

It can be said that Türkiye had a comparative advantage over all countries in SITC 657 (special woven and articles thereof) sub-product group exports. It was seen that Türkiye had a comparative advantage over India, Germany and the USA throughout the whole period. It was determined that Türkiye had a comparative advantage over Pakistan throughout the whole period examined except for 2015 and 2017. Although Türkiye lost its competitive advantage over China between 2008 and 2014 and over Vietnam between 2009 and 2014, it is seen that it regained its competitive advantage since 2015. In addition, it is noteworthy that Türkiye had a competitive advantage over South Korea since 2010 and over Italy and Taiwan since 2016 (Table 10).

**Table 10. Türkiye's Comparative Export Performance (CEP) Index Coefficients in SITC
 657 Sub-Product Group**

Years	China	India	Germany	U.S.	Italy	Vietnam	Pakistan	South Korea	Taiwan
2001	1,85	2,83	1,04	1,72	0,86	2,50	1,14	0,46	0,35
2002	1,84	2,99	1,06	1,65	0,92	2,40	1,23	0,54	0,40
2003	1,77	2,90	1,03	1,40	0,86	2,09	1,14	0,59	0,44
2004	1,63	2,97	1,32	1,37	0,87	2,34	1,10	0,69	0,45
2005	1,39	2,88	1,25	1,33	0,85	2,20	1,50	0,74	0,48
2006	1,41	3,24	1,26	1,39	0,84	1,37	1,98	0,82	0,60
2007	1,27	2,89	1,29	1,48	0,81	1,49	2,17	0,86	0,61
2008	0,93	2,68	1,06	1,38	0,73	1,25	2,17	0,82	0,54
2009	0,83	2,87	1,11	1,43	0,75	0,90	2,43	0,95	0,55
2010	0,88	2,63	1,23	1,52	0,83	0,79	2,49	1,10	0,68
2011	0,91	3,38	1,37	1,82	0,95	0,86	3,24	1,33	0,79
2012	0,90	2,66	1,26	1,61	0,90	0,90	4,46	1,20	0,73
2013	0,93	2,72	1,29	1,65	0,93	0,96	2,97	1,26	0,81
2014	0,98	2,19	1,37	1,73	0,97	0,99	1,26	1,34	0,87
2015	1,01	2,17	1,47	1,74	0,98	1,08	0,94	1,42	0,86
2016	1,05	2,41	1,58	1,89	1,07	1,33	1,24	1,47	1,03
2017	1,01	2,71	1,52	1,83	1,07	1,36	0,77	1,58	1,05
2018	1,10	3,00	1,66	2,10	1,19	1,45	1,47	1,75	1,24
2019	1,07	2,79	1,67	2,13	1,20	1,39	4,26	1,56	1,26
2020	1,21	2,46	1,88	2,30	1,39	1,91	4,76	1,97	1,69
2021	1,12	2,33	1,66	2,19	1,20	1,37	9,23	1,87	1,69

Source: Calculated Using Uncomtrade Data.

Türkiye has a comparative advantage over other countries except for Pakistan and India in exports of SITC 658 (woven ready-made product) sub-product group. During the whole period, Türkiye had a comparative disadvantage over Pakistan and a comparative advantage over Germany, USA, Italy, Vietnam, South Korea and Taiwan. Türkiye lost its competitive advantage over India since 2015. It can be said that Türkiye's competitive advantage over China followed a stable course between 2005-2021, except for 2020. On the other hand, it is noteworthy that Türkiye's competitive advantage over Germany, the USA, Italy and Vietnam was in a downward trend (Table 11).

**Table 11. Türkiye's Comparative Export Performance (CEP) Index Coefficients in SITC
658 Sub-Product Group**

Years	China	India	Germany	U.S.	Italy	Vietnam	Pakistan	South Korea	Taiwan
2001	2,40	1,34	28,56	33,94	16,95	4,69	0,20	13,73	14,76
2002	2,57	1,45	27,92	35,50	18,28	4,52	0,19	13,78	18,73
2003	2,44	1,36	27,51	35,55	18,71	4,27	0,17	16,00	24,24
2004	2,23	1,22	24,61	31,55	16,16	3,15	0,16	19,00	23,35
2005	1,97	1,12	20,65	26,61	16,11	3,21	0,14	19,36	25,22
2006	1,80	1,15	17,69	24,22	14,14	2,39	0,12	19,92	24,27
2007	1,77	1,23	16,56	22,43	13,80	2,14	0,11	19,40	22,60
2008	1,36	1,19	12,48	20,13	11,58	2,18	0,10	16,57	17,93
2009	1,16	1,27	10,25	16,73	11,87	1,71	0,10	15,11	15,47
2010	1,30	1,25	10,96	18,86	12,23	1,43	0,11	20,91	18,72
2011	1,33	1,26	10,32	19,90	12,60	1,85	0,11	27,61	18,43
2012	1,07	0,92	8,25	15,22	9,90	1,62	0,09	21,30	14,60
2013	1,25	1,09	9,72	17,07	11,26	1,71	0,10	27,30	17,57
2014	1,24	1,05	9,03	16,85	10,94	1,75	0,09	27,78	17,79
2015	1,21	0,82	8,39	15,06	10,17	1,68	0,08	28,33	16,09
2016	1,23	0,86	8,67	15,74	10,87	1,95	0,08	32,22	15,83
2017	1,19	0,83	8,67	14,60	10,49	2,06	0,08	31,14	14,34
2018	1,07	0,74	7,11	13,57	9,26	1,83	0,07	29,63	12,39
2019	1,04	0,73	6,51	12,59	9,38	1,67	0,07	27,09	11,13
2020	0,50	0,85	5,26	11,74	9,84	1,29	0,08	8,77	10,80
2021	1,04	0,76	5,67	11,19	9,10	2,09	0,07	16,67	13,85

Source: Calculated Using Uncomtrade Data.

It can be argued that Türkiye had a comparative advantage over all countries in SITC 659 (floor coverings, carpets) sub-product group exports. It has been observed that Türkiye gained a competitive advantage over India since 2007 and over Pakistan since 2009. It is noteworthy that Türkiye's comparative advantage coefficients were in a downward trend over Vietnam since 2016, and comparative advantage coefficients were in an upward trend in comparison with all other selected countries (Table 12).

**Table 12. Türkiye's Comparative Export Performance (CEP) Index Coefficients in SITC
659 Sub-Product Group**

Years	China	India	Germany	U.S.	Italy	Vietnam	Pakistan	South Korea	Taiwan
2001	4,51	0,63	10,91	8,30	16,24	13,74	0,29	34,64	74,81
2002	4,66	0,67	10,87	7,77	16,32	25,11	0,33	45,77	65,73
2003	5,54	0,70	11,95	8,12	15,39	31,98	0,43	50,48	76,46
2004	6,29	0,78	13,20	8,17	16,11	23,15	0,45	69,04	89,46
2005	7,44	0,87	14,36	8,75	18,08	24,02	0,51	86,01	103,94
2006	7,87	0,86	14,55	8,85	17,97	33,13	0,60	77,56	128,97
2007	8,54	1,11	17,58	10,31	20,66	33,95	0,74	99,85	141,14
2008	7,71	1,37	15,91	10,20	19,89	22,84	0,95	115,01	150,81
2009	8,31	1,91	16,57	12,86	20,75	29,38	1,40	129,69	204,57
2010	8,87	1,85	19,03	14,02	25,16	37,31	1,84	147,33	260,43
2011	9,56	2,80	21,74	16,20	28,69	54,02	2,30	161,87	248,04
2012	11,05	2,81	25,43	18,14	32,70	59,62	2,66	169,22	247,18
2013	11,84	2,67	27,41	18,92	32,58	59,98	2,67	145,11	234,38
2014	12,30	2,50	29,02	20,39	33,31	68,86	2,85	159,70	332,06
2015	11,57	2,07	28,68	19,45	31,48	65,49	2,83	152,77	313,96
2016	10,70	1,94	26,30	19,15	29,09	65,07	3,00	144,71	313,85
2017	11,05	2,23	28,38	20,39	30,10	59,70	3,87	230,35	398,39
2018	10,71	2,37	28,90	21,79	28,39	37,60	4,26	223,47	482,85
2019	12,01	2,66	32,78	25,39	33,05	21,61	5,01	323,32	602,09
2020	13,32	2,52	36,17	28,49	43,98	15,28	6,31	310,63	963,26
2021	12,81	2,51	35,41	32,35	40,23	11,64	5,22	311,98	1080,79

Source: Calculated Using Uncomtrade Data.

7. CONCLUSION

The textile sector plays a leading role in the industrialization process of developed countries and in the development and export of developing countries. When the top 10 countries, including Türkiye, are examined in world textile exports, we see that in addition to developing countries, some developed countries such as Germany, Italy, the USA and South Korea rank high in the list of textile export. This situation can be interpreted to mean that developed countries have not withdrawn from the textile sector and continue to exist with their current investments.

The textile sector in Türkiye is very important due to its contribution to employment and due to the contribution of annual net export income to Türkiye's foreign exchange reserve. In the textile sector, which contributes to the Turkish economy in many ways, sustainability of competition and increasing competition is important for the future of the sector. For this, it is important to reveal the competitiveness and export performance against rival countries in order to evaluate the situation and to determine the policies to be followed. In line with this, the Balassa's Revealed Comparative Advantage (RCA) Index was calculated to determine the competitiveness of the sector, and Donges et al.'s (1982) Comparative

Export Performance (CEP) Index was calculated to determine the export performance of the sector over rival countries. According to the findings obtained using the Balassa's Revealed Comparative Advantage index for the period 2001 and 2021, it was seen that the Turkish textile sector had a competitive advantage in the SITC 65 two-digit main product group in the world market in the period 2001 and 2021. It was determined that Türkiye had a competitive advantage in 7 of the 9 three-digit sub-product groups SITC (652, 653, 655, 656, 657, 658, 659) had a competitive advantage, while the competitiveness in the SITC 651 sub-product group remained at the marginal limit. While the comparative advantage was at marginal limit in the SITC 654 sub-product group in the period between 2001 and 2013, it was seen that there was a competitive disadvantage in the period between 2014 and 2021, except for 2021. According to the results obtained by using the Comparative Export Performance Index developed by Donges et al. (1982), Türkiye had a comparative advantage in SITC 65 main product group export compared to 8 other countries except for Pakistan. Türkiye had a comparative advantage over Germany, the USA and South Korea in all of 9 sub-product group exports. Of all 9 sub-product group exports, Türkiye had a competitive advantage over Taiwan (excluding SITC 654) and Vietnam (excluding SITC 651) in 8 items, over China (excluding SITC 653 and 654) and Italy (excluding SITC 654 and 655) in 7 items, and over Pakistan (excluding SITC 651, 652, 653 and 658) and India (excluding SITC 651, 652, 654 and 658) in 5 items.

In the light of the findings obtained from the study, it is seen that the Turkish textile sector has competitiveness. Strategies that can be followed to sustain competitiveness in the textile sector and to gain competitiveness in disadvantaged sub-product groups include reducing high production costs such as energy, financing, taxes, reducing dependence on cotton imports due to the inadequacy of cotton production, reducing dependence on synthetic and artificial fiber imports, focusing on the production of products with high added value, taking advantage of close supply in the EU market over competing countries, which gained importance after the pandemic, increasing exports to countries in proximal regions outside the EU and ensuring market diversity in exports, increasing R&D activities, and focusing on branding.

Balassa's Revealed Comparative Advantage index, calculated by using the current trade data of Türkiye and Türkiye's rival countries in the textile sector, constitutes the limitation of the study as it explains whether there is an apparent advantage difference without delving into the reason for the comparative advantage. This study, which reveals the competitiveness of the textile industry in the world market, can be improved by researchers who want to measure the competitiveness of the Turkish textile industry by analyzing the competitiveness of the Turkish textile industry in other markets, such as the USA, the European Union and the Middle East market. Since the study reveals that the Turkish textile industry has a competitive structure, it is possible to say that similar results to the studies in the literature were obtained in terms of competitiveness.

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Annex Table: Textile Yarn and Related Products (SITC Rev. 3)

Product Code	Product Description
65	Textile yarn and related products
651	Textile yarn
652	Cotton fabrics, woven
653	Fabrics, woven, of man-made fabrics
654	Other textile fabrics, woven
655	Knitted or crocheted fabrics, n.e.s.
656	Tulles, trimmings, lace, ribbons & other small wares
657	Special yarn, special textile fabrics & related
658	Made-up articles, of textile materials, n.e.s.
659	Floor coverings, etc.

Kaynak: UNCTADstat

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Fikir veya Kavram / <i>Idea or Notion</i>	Araştırma hipotezini veya fikrini oluşturmak / <i>Form the research hypothesis or idea</i>	Assoc. Prof. Mehmet Ali POLAT Serdar ÖZÖZEN
Tasarım / <i>Design</i>	Yöntemi, ölçeği ve deseni tasarlamak / <i>Designing method, scale and pattern</i>	Assoc. Prof. Mehmet Ali POLAT Serdar ÖZÖZEN
Veri Toplama ve İşleme / <i>Data Collecting and Processing</i>	Verileri toplamak, düzenlenmek ve raporlamak / <i>Collecting, organizing and reporting data</i>	Assoc. Prof. Mehmet Ali POLAT Serdar ÖZÖZEN
Tartışma ve Yorum / <i>Discussion and Interpretation</i>	Bulguların değerlendirilmesinde ve sonuçlandırılmasında sorumluluk almak / <i>Taking responsibility in evaluating and finalizing the findings</i>	Assoc. Prof. Mehmet Ali POLAT Serdar ÖZÖZEN
Literatür Taraması / <i>Literature Review</i>	Çalışma için gerekli literatürü taramak / <i>Review the literature required for the study</i>	Assoc. Prof. Mehmet Ali POLAT Serdar ÖZÖZEN

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