TITLE: Evaluation of Comparative Advantages of Trade in Service in Türkiye with RCA and TBI

Indices

AUTHORS: Dilan Özdemir

PAGES: 47-60

ORIGINAL PDF URL: https://dergipark.org.tr/tr/download/article-file/3036614

Evaluation of Comparative Advantages of Trade in Service in Türkiye with RCA and TBI Indices

Dilan ÖZDEMİR[*]

ABSTRACT

Technological developments in the last quarter century and the increase in the service sector in international trade enable schools to develop their foreign trade policies for service trade. To achieve a competitive advantage in this extended family service trade, it is necessary to determine the countries' comparative advantages. To choose the comparative advantage of Turkiye's service sector in this country between 2013-2021, the TBI index, which was used by RCA and supported the index results, was also included in the study. The data obtained from the survey show that Turkiye has a comparative advantage in maintenance and repair, transportation, travel, insurance and pension, and government goods and services in the relevant period. However, it is not generally observed during the elapsed time in government goods and services and insurance and pension services. On the other hand, while Turkiye has a net exporter position in manufacturing services on physical inputs owned by others, transportation, travel, and construction services, it is also a net exporter in insurance and pension, financial services, charges for the use of intellectual property, telecommunications, computer, and information processing and government goods and services during the relevant period—Importer position. However, some services remain net importers or exporters throughout the period. These results are more sensitive than macro and micro environmental conditions.

Key Words: *Trade in Services, Comparative Advanteges, RCA Index, TBI Index, Türkiye*
JEL Classification: *F14*

Türkiye'nin Hizmet Ticaretinin Karşılaştırmalı Üstünlüklerinin RCA ve TBI Endeksleri ile Değerlendirilmesi

ÖZ

Son çeyrek asırda yaşanan teknolojik gelişmeler uluslararası ticarette hizmet sektörünün önemini artırarak ülkelerin hizmet ticaretine yönelik dış ticaret politikaları geliştirmelerini sağlamıştır. Bu açıdan bakıldığında hizmet ticaretinde rekabet üstünlüğü sağlanabilmesi için ülkelerin karşılaştırmalı üstünlüklerinin belirlenmesi gerekmektedir. Bu çalışmada Türkiye'nin hizmet sektörünün 2013-2021 yılları arasında karşılaştırmalı üstünlüğünü belirlenebilmesi için RCA endeksi kullanılmış ve endeks sonuçlarını desteklemesi açısından TBI endeksi de çalışmaya dahil edilmiştir. Çalışmadan elde edilen bulgular ilgili dönemde Türkiye'nin bakım ve onarım, taşımacılık, ulaşım, sigorta ve emeklilik ve kamu hizmetlerinde karşılaştırmalı üstünlüğe sahip olduğunu göstermektedir. Ancak kamu hizmetleri ve sigorta ve emeklilik hizmetlerinde sağlanan karşılaştırmalı üstünlük dönem boyunca kesintisiz olarak gözlemlenmemektedir. Diğer yandan Türkiye, başkalarına ait fiziksel girdiler üzerinde yapılan imalat, taşımacılık, ulaşım ve inşaat hizmetlerinde net ihracatçı konumunda yer alırken yine ilgili dönem boyunca sigorta ve emeklilik, finansal hizmetler, fikri mülkiyet, telekomünikasyon, bilgisayar ve bilgi işlem ve kamu hizmetlerinde ise net ithalatçı konumunda yer almaktadır. Ancak net ithalatçı ya da net ihracatçı konumu dönem boyunca devam

---
[*]Research Assistant, Tarsus University Faculty of Applied Sciences, Department of International Trade and Logistics, dilanozdemir@tarsus.edu.tr, ORCID Number: 0000-0002-1390-5162.

etmeyen hizmetler de bulunmaktadır. Bu durum ise bu hizmetlerin makro ve mikro çevre koşullarına göre daha hassas olduğunu göstermektedir.

Anahtar Kelimeler: *Hizmet ticareti, Karşılaştırmalı Üstünlükler, RCA Endeksi, TBI Endeksi, Türkiye*

JEL Sınıflandırması: *F14*

INTRODUCTION

Many international trade theories have been developed to explain international trade. Traditional/classical international trade theories are the first examples of these theories presented in scientific terms. In the theory of absolute advantage, one of the classical foreign trade theories, it is argued that the international trade between the two countries that are trade partners will be realized if the production superiority of the countries in the production of goods is absolute. However, at this point, the fact that international trade cannot be realized if a country has absolute production superiority in both goods has created a question mark about the sustainability of international trade. Forty years after the theory of definite advantages, Ricardo stated in his work that even if one of the two trading partner countries has an absolute advantage in both goods, international trade can be realized thanks to the countries' comparative advantages. This contribution of Ricardo made essential contributions to the later developed theories of international trade. In this context, studies have also been conducted to determine comparative advantages. One of these studies, Balassa's work called Trade Liberalization and Explained Comparative Advantage in 1965, includes the measurement of the comparative advantage of countries with the help of an index. The Revealed Comparative Advantage Index (RCA), proposed by Balassa in his study, reveals the comparative advantage of nations in manufactured goods while using the trade performance data of the same country.

Although the RCA index mainly deals with the trade of goods, empirical studies conducted in recent years show that the RCA index is also used to determine the comparative advantages of the service sector. The increase in the visibility and importance of the service sector in the world economy has been effective due to the development of information and communication technologies. In this study, it was aimed to examine the comparative advantages of Turkey's service sector between the years 2013-2021 with the RCA index, and TBI (Trade Balance Index) index calculations were also included in the study to provide a complementary perspective on the results of the comparative advantage. The study consists of four parts in total. In the first part of the study, general information about services and the service sector was presented, and in the second part, the conceptual framework of comparative advantages was created. In the third part of the study, studies measuring the comparative advantage of the service sector are included. The methods and findings are emphasized in the fourth part of the study, and the results are given in the last part of the study.

I. DESCRIPTION OF SERVICES AND SERVICE SECTOR

The fact that services cannot be hidden and physically visible makes it challenging to define services. At this point, Hill (1977) evaluates services by

separating them from goods in his work. According to Hill (1977), services emerge with changes in the condition of goods due to economic activities, and economic activities that change the shape of goods correspond to services. According to Bhagwati (1986), services can be classified according to the physical distance between the service provider and the service user. From this point of view, it is seen that Bhagwati (1986) ranks services as a mobile user-mobile provider, mobile user-mobile provider, and mobile user-mobile provider. On the other hand, some services do not require physical proximity between the parties providing and using the service. Such services have emerged with the development of information technologies, including professional business services, banking, and insurance services.

Sectoral analysis of services is based on the work of Fisher (1935) and Clark (1940). According to Fisher and Clark, production activities are included in the national income as primary, secondary, and tertiary sectors. The primary industry is agriculture, forestry, and fisheries; The secondary sector refers to the manufacturing industry and construction, and the tertiary sector refers to the service sector. The definition of production activities as three sectors within the national income is included in the literature as the Three Sector Law. According to this approach, countries' development level is measured by the shares of these sectors in national income. While the percentage of the primary sector in national income is high in underdeveloped countries, the secondary industry and sector come to the fore in developing countries. In developed countries, the share of the tertiary sector in national income is higher.

On the other hand, Judd (1964) suggests services are classifying three categories: rented goods, owned goods services and non-goods services. In this point rented good services refer to the right to process and use a good for a period of time, owned goods services expressed that custom creation, repair or improvement of goods owned by customer and non-goods services refer to personal experiences. But this Judd's classification is fundamentally, miss out insurance, legal advice and banking. Also Rathmell (1974) suggests five categories for services; type of buyer and type of seller, buying motives and practice and degree of regulation. In this context, Rathmell's this classification may also apply to goods. On the other hand, Lovelock (2011), in his study, presents twelve approaches to classifying services based on basic demand characteristics, service components and benefits, and service delivery processes. This approaches for the said grouping are given in Table 1.

Table 1. Lovelock's (2011) service classifying approaches

Basic Demand Characteristic	Service Component and Benefits	Service Delivery Process
Object of service	Role of physical goods and facilities in service delivery	Multisite &Single-site delivery
Extent of demand or supply imbalances	Role of extent of personal service	Allocation of capacity to customers
Discrete & continuous customer-provider relationships	Breadth of service package	Time-defined & task-defined transactions
	Timing and duration of benefits	Nature of customer-provider interaction
		Independent & collective consumption

The developments in information technologies and the globalization of the markets have contributed to the development of the service sector. In particular, with the entry into force of the General Agreement on Trade in Services (GATS) in 1995, the decisions to ensure the free movement of services, reduce tariffs to a great extent, and remove non-tariff barriers have confirmed that services trade is carried out within the framework of specific standards. According to the data of the Ministry of Commerce (2023), world service trade, which was 6.3 trillion dollars in 2019, decreased to 5 trillion dollars in 2020 with the effect of the pandemic. By 2021, with the improvement of the adverse conditions of the pandemic, service trade will have increased to 6 trillion dollars again. The service sector is also essential for the world economy regarding its share in the total GDP, the added value it creates, and the employment it provides. In this context, according to the World Bank (2022) data, the share of value added from the service sector in GDP was 6.21% in 2021, while its share in GDP was 13.69% in 2019, it decreased to 11.68% in 2020 with the Covid pandemic. On the other hand, the total employment share of the service sector was 50.58% as of 2019.

The service sector, which stands out with its share in the total GDP in the world economy and the employment it creates, also draws attention to the Turkish economy. According to the data of the Ministry of Commerce (2023), service exports, which were 14 billion dollars in 2002, were 67.2 billion dollars in 2019. In 2020, it decreased by 43.1% compared to 2019 and regressed to 38.2 billion dollars, and the balance of services was realized as 14.4 billion dollars. Service exports amounted to 61.4 billion dollars in 2021 and had a share of 1.1% worldwide.

II.CONCEPTUAL FRAMEWORK: COMPARATIVE ADVANTAGES

Absolute Advantage Theory comes first among the theories that try to explain international trade. Although the fundamental advantage theory explains international trade to a large extent, it shows that it is not possible if one of the countries included in the model has an absolute advantage in both goods. In 1817, David Ricardo's work called On the Principles of Political Economy, and Taxation explained that international trade is possible even if a country has absolute superiority in both goods. In other words, Ricardo argues that a country at a definite disadvantage from international trade can gain from the advantageous country due to its comparative advantages. In the global economics literature, the two-country

and two-goods model is used in this theory, known as the Theory of Comparative Advantage. It is assumed that the labor factor produces these goods. Other basic assumptions of the Theory of Comparative Advantage are listed as follows (Appleyard and Field, 2014: 29-30):

- Each country has fixed resource equipment.
- Factors of production (labor) are mobile-only within the country.
- The level of technology is stable in both countries.
- The unit cost of production is fixed.
- Perfect competition and full employment conditions apply in the economy.
- The state does not hinder economic activities.
- Transport costs are zero inside and outside the country.

Chart 1 is obtained when the theory of comparative advantage is formulated with the assumption of a world economy in which countries A and two goods, X and Y.

Chart 1. Theory of Comparative Advantage: The Ricardo Model
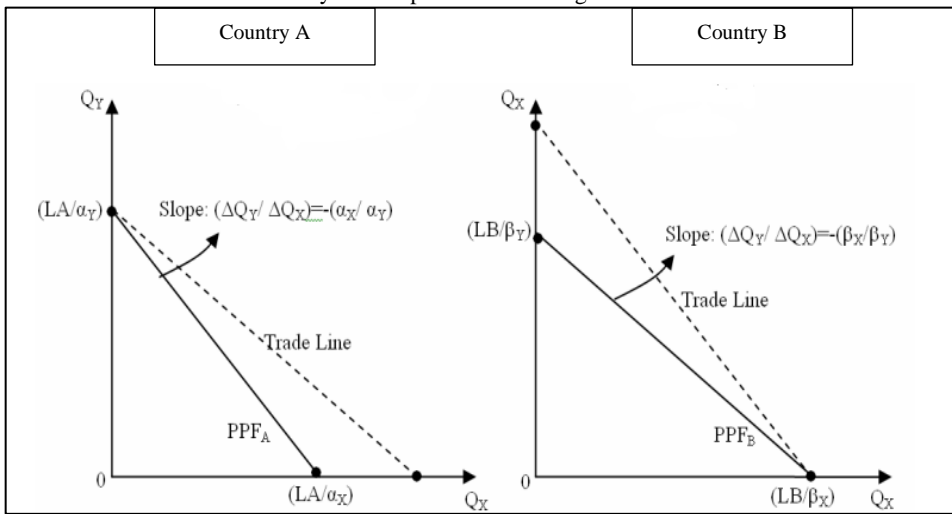
Source: Widodo, 2009: 60

According to Graph 1, country A needs α_X ve α_Y units of labor to produce goods Q_X and Q_Y, and LA represents the total labor supply of country A. Similarly, country B needs β_X and β_Y units of labor to produce goods Q_X and Q_Y, and LB represents the total labor supply in country B. The production probabilities of the countries are represented by PPF[2] (PPF_A, PPF_B), $\alpha_X Q_X + \alpha_Y Q_Y = LA$ and $\beta_X Q_X + \beta_Y Q_Y = LB$, respectively. Therefore, the slopes of the PPFs for countries A and B are $(-\alpha_X/\alpha_Y)$ ve $(-\beta_X/\beta_Y)$, respectively.

Notably, the slope of (α_X/α_Y) is steeper than the slope of (β_X/β_Y) in Graph 1, where the Ricardo approach is expressed in comparative advantages. This shows that commodity X is relatively more expensive in country A than in country B, and commodity Y is cheaper. In this case, Country A specializes in good Y, and Country B specializes in good X. Both countries can reach higher consumption levels by trading along the trade line.

51

Comparative advantages can be expressed with the neoclassical and dynamic approaches and the Ricordo approach. The increasing marginal cost assumption is used in the neoclassical international trade theory instead of the fixed cost assumption applied in the Ricardian model. At the same time, in the dynamic comparative advantages approach, it is stated that a country's comparative advantage may arise from the changes in the supply and demand mechanisms in the national and international markets. Here, the supply mechanism is explained by the production possibilities of the countries, and the consumer preferences explain the demand mechanism. In the dynamic comparative advantage approach, total factor productivity affects countries' comparative advantage in the long run. This explains the tendency of underdeveloped countries to export primary goods (Widodo, 2009: 61).

III.LITERATURE REVIEW

Comparative advantages can be evaluated as a measure of the performance of countries in global markets. A country's comparative advantage in any goods or service group can provide information about that country and an idea about other countries with which it is a trade partner. When the empirical literature on the subject is examined, it shows that most studies focus on the comparative advantages of commodity trade. On the other hand, studies that measure the relative advantages of the service sector take up relatively little space in the literature. In this context, some studies that measure the comparative advantages of the service sector are given below.

Findings from the studies of Gaurav and Bharti (2018), which investigated the competitive potential of service trade between India and Japan during the 2004-2012 period with the RCA index, indicate that Japan has a comparative advantage in transportation, construction and charges for the use of intellectual property, while India has a comparative advantage in computer-computing, commercial and other services. Byungtaek (2019) used the RCA index in his study investigating the competitive benefits of service trade in Korea from 2009-2019. The study shows Korea has a high comparative advantage in construction, transportation, charges for the use of intellectual property, and personal, cultural, and recreational services. Still, the dominance of these service items tends to decrease in the last years of the relevant period. Paksoy (2020), in his study in which he compared the comparative advantages of Turkey's financial services with the economic benefits of the USA, China, England, France, Japan, and Germany in the 2015-2019 period, measured their competitive advantage using RCA and CEP (comparative export performance index) indices. According to the findings obtained from the study, Turkey is positioned as a country with a relative disadvantage in terms of financial services. Dimanov (2021), on the other hand, used the RTA and WVRCA (Wosiek -Visvizi announced comparative advantage index) indices to measure competitive advantage in his study investigating the competitive advantages of service trade in Greece. The findings obtained from the survey show that Greece has a highly competitive power in construction services and has a comparative advantage in manufacturing services on physical inputs owned by others. On the other hand,

although a comparative advantage is determined according to the RTA index values in transportation services, it has been found that the same service has a relative disadvantage in exports according to the results of the WVRCA index.

Wosiek and Visvizi (2021) used WVRCA and CRCA indices to determine competitive advantage in their study, investigating the competitive advantages of Poland's service sector during the 2010-2019 period. The study's findings show that Poland has comparative advantages in transportation, construction, and R&D services and can provide comparative advantages in the personal, cultural, and recreational sectors in the coming years. On the other hand, it is stated that the Polish economy is likely to lose its comparative advantage in goods-related services and manufacturing services.

Findings obtained from the study of Eken and Yazıcı (2022), in which they investigated the competitiveness of 12 sub-service branches of Turkey in the 2013-2019 period using the RCA index, show that Turkey has a high level of comparative advantage in transportation and transportation services, and a moderate comparative advantage in insurance and maintenance-repair services. Dumrul and Kılıçarslan (2022), on the other hand, investigated the competitive advantages of 12 sub-service sectors of the BRICS countries in 2016-2020 using the RCA index. According to the findings obtained from the study, BRICS countries are in the position of a country with a comparative advantage in construction, telecommunications, computer informatics, and other commercial services. Ambroziak and Stefaniak (2022) investigated the competitive advantages of the service sub-sectors that stand out in China's service trade with the European Union countries in the 2010-2021 period using RSCA and LFI indexes and Widodo product mapping. The findings of the study show that China maintained its comparative advantage in transportation, other services, and research and development services in the relevant period, gained a comparative advantage in maintenance and repair, insurance and pension, manufacturing services on physical inputs owned by others, and could not gain a comparative advantage in management consulting and accounting services.

IV. METHODS AND FINDINGS

Services, under the Expanded Balance of Payments Service Classification EBOPS 2010, manufacturing services on physical inputs owned by others, maintenance and repair services, transportation, travel, construction, insurance and pension services, financial services, charges for the use of intellectual property, telecommunications, computer and information services, other business services, personal, cultural and recreational services, and government goods and services. This study used the declared comparative advantage index (RCA) and the trade balance index (TBI) to calculate the relative advantages of the service sector in Turkey between 2013-2021. The data for the relevant period were obtained from the Trade Map database.

The disclosed comparative advantage index was introduced by Bela Balassa in her 1965 book "Trade Liberalization and Revealed Comparative Advantage." Balassa (1965) examined the comparative advantage of the leading

53

industrial countries in manufactured goods, using the available information on trade performance. In this context, the RCA index formula is expressed in equation (1).

$$RCA_{it}^{j} = \frac{X_{it}^{j}/X_{t}^{j}}{X_{it}^{w}/X_{t}^{w}} \qquad (1)$$

In Equation (1), RCA_{it}^{j} represents the disclosed comparative advantage index of country j for goods I in year t. In this context, it means the export of goods I of country j in year t, X_{t}^{j}, the total exports of country j in year t, the exports of goods I of the world in year t, and finally, the total exports in year t. The RCA index takes values in the range ($0 \leq$ RCA$\leq \infty$). An RCA greater than 1 indicates that country j has a comparative advantage in product I, and an RCA less than 1 suggests that country j has a relative disadvantage in product I (Shohibul, 2013: 138). On the other hand, a different classification is used for the RCA index. Hinloopen and Marrewijk (2001) state that RCA index values can be grouped in four ways as Group A, Group B, Group C, and Group D in their study. The RCA index values for the said grouping are given in Table 2.

Table 2. RCA Index Group

| Group A	$0 < $ RCA ≤ 1	Comparative disadvantage
Group B	$1 < $ RCA ≤ 2	Weak comparative advantage
Group C	$2 < $ RCA ≤ 4	Medium comparative advantage
Group D	$4 < $ RCA	Strong comparative advantage

Wosiek and Visvizi (2021) state in their work that the RCA index of the RCA index can express the degrees of specialization and comparative advantages in the service sector, just like in the goods.

Many indices express the positions of countries in international markets. One of these indices is the Trade Balance Index (TBI). Developed by Lafay (1992), TBI is used to analyze whether a country specializes in exports (as a net exporter) or imports (as a net importer) for a particular product group. TBI is formulated as in Equation (2).

$$TBI_{ij} = \frac{(X_{ij} - M_{ij})}{(X_{ij} + M_{ij})} \qquad (2)$$

In Equation (2), TBI_{ij} represents the trade balance index of the country I in goods j, X_{ij} represents country i's exports of j goods, and M_{ij} represents country i's imports of goods j. TBI index values range from (-1) to (+1). From this point of view, if a country imports, it is equal to TBI (-1), and if it exports only, it is similar to TBI (+1). Any value in (-1) and (+1) indicates that the country exports and imports that good at the same time; if the calculated TBI value is negative, the country is a "net importer," and positive indicates that it is a "net exporter." In terms of evaluating the TBI index as exporters or importers of countries, Nath et al. (2015) used the TBI index in their studies on the service trade of the USA with China and India.

The RCA index values of the Turkish service sector between 2013-2021 are presented in Chart 2.
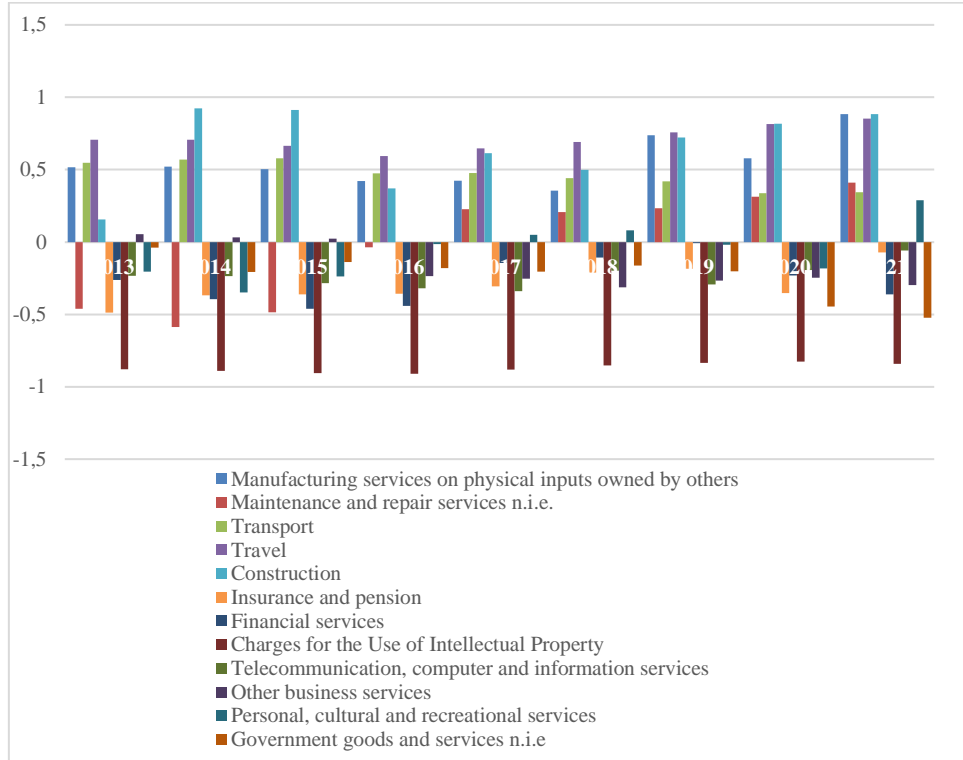
Chart 2. RCA Index Results
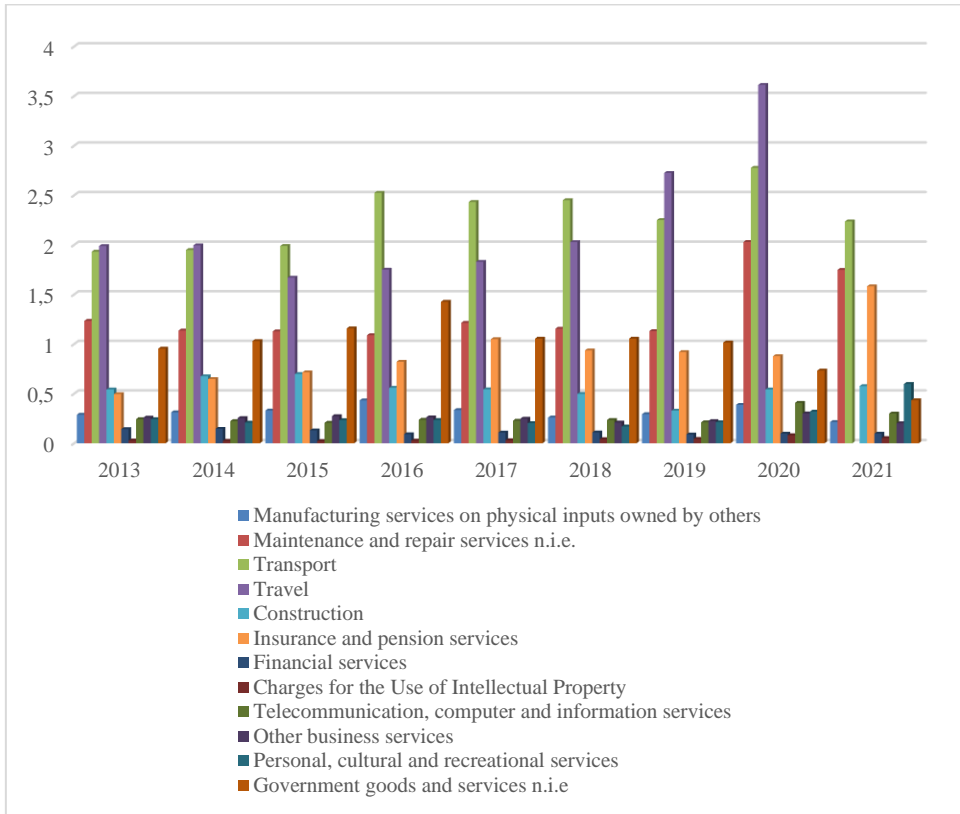
According to the results of the RCA index in Chart 2, comparative advantages could not be determined in manufacturing services on physical inputs owned by others, financial services, charges for the use of intellectual property, construction, telecommunications computer and information services, other business services, personal, cultural, and recreational services. In other words, Turkey did not have a comparative disadvantage in the sectors in 2013-2021. On the other hand, a general comparative advantage can be mentioned in maintenance and repair, transportation, travel, insurance and pension, and government goods and services. However, the degrees of these relative advantages need to be determined. In this context, a moderate comparative advantage in maintenance and repair services in 2020 and a weak comparative advantage in other years. In the corresponding period, it is observed that higher comparative advantages were achieved in transportation and travel services compared to other services. A weak comparative advantage in transportation services was obtained in 2013, 2014, and 2015, while a medium comparative advantage was obtained in different years. In travel services, the medium comparative advantage was achieved in 2019, 2020, and 2021, and the relative advantage value announced in 2021 was calculated as 3.61. In the other years of the relevant period, there is a weak comparative advantage in travel services. While insurance and pension services achieved a soft

55

comparative advantage in 2019 and 2021, the relative advantage was not achieved in other years. Finally, when government goods and services are evaluated, the weak comparative advantage was achieved only between 2014-2019.

While evaluating the comparative advantages of Turkey's service sector, it is essential to determine which foreign trade activity resulted from the relative advantage or disadvantage obtained. In this context, the results of the TBI index are presented in Chart 3.

Chart 3. TBI Index Results

■ Manufacturing services on physical inputs owned by others
■ Maintenance and repair services n.i.e.
■ Transport
■ Travel
■ Construction
■ Insurance and pension
■ Financial services
■ Charges for the Use of Intellectual Property
■ Telecommunication, computer and information services
■ Other business services
■ Personal, cultural and recreational services
■ Government goods and services n.i.e

According to the results of the TBI index in Chart 3, Turkey was a net exporter of manufacturing services on physical inputs owned by others, transport, travel, and construction services on physical inputs belonging to others during the relevant period, while insurance and pensions, financial services, charges for the use of intellectual property, telecommunications, computers during the applicable period. And is a net importer of IT and government goods and services. On the other hand, it is impossible to conclude that Turkiye is a net exporter or a net importer during the relevant period for maintenance and repair, personal, cultural, and recreational services, and other business services. Instead, inferences can be made for these service sectors every year. While Turkiye was a net importer of maintenance and repair services between 2013-2016, it was a net exporter between 2017-2021. While it became a net exporter of other business services in 2013, 2014, and 2015, it became a net importer in the period covering the years 2016-2021. In

personal, cultural, and recreational services, it achieved a net exporter position in 2017, 2018, and 2021.

CONCLUSIONS

The difficulties experienced in defining services have hindered the trade of services to the work of goods on the computer. However, while entering the GATS Agreement in 1995, service sector developments and service trade tours made the service trade more visible in the world economy. In particular, technological advances have increased the importance of the service sector in international trade, which has also been reflected in the empirical literature.

This study investigates the comparative advantages of Turkiye's service sector based on sub-sectors. Foreign trade in service data between 2013-2021 were obtained from the Trademap database, and RCA and TBI indices were calculated. Findings from the study show that Turkiye has a comparative advantage in travel, transportation, maintenance, and repair services. However, considering the comparative advantage of the said sectors, a weak comparative advantage was obtained in maintenance and repair services throughout the period, while a soft comparative advantage was gained in the transportation sector in 2013, 2014, and 2015, and a medium comparative advantage was gained between 2016-2021. In travel services, the moderate comparative advantage gained during the relevant period showed an increasing trend from the beginning to the end. The highest relative advantage degree of the period was realized in 2021, with 3.61. This indicates that Turkiye can achieve a sustainable comparative advantage in international markets in travel services in the coming years.

On the other hand, the comparative advantage was achieved in government goods and services, insurance, and pension services. However, observing the comparative benefits gained from these services throughout the period is impossible. Accordingly, the relative advantage was achieved in government goods and services between 2014-2019 and in insurance and pension services in 2017 and 2021. In terms of manufacturing services on physical inputs owned by others, construction, financial services, charges for the use of intellectual property, telecommunications, computer and information processing, personal, cultural, and recreational services, and other business services made on physical inputs belonging to others, Turkiye is in the position of a country with a comparative disadvantage in international markets. Technological infrastructure investments should be significantly increased for financial and telecommunication, computer, and information processing services to overcome this relative disadvantage.

When the trade balances of the service sectors in which Turkey has a comparative advantage or disadvantage are analyzed, it cannot be concluded that Turkey is completely foreign-dependent or completely exports in any service group. In other words, Turkiye makes exports and imports simultaneously in all service groups discussed. On the other hand, it is noteworthy that Turkiye is a net exporter in sectors with a comparative advantage. This situation coincides with the export-based industrialization policies implemented to gain competitive power in international markets. However, in terms of maintenance and repair services,

57

Turkiye was a net importer between 2013-2016 and a net exporter between 2017-2021. Considering that the comparative advantage provided in maintenance and repair services is weak comparative advantage throughout the period, it seems possible that Turkiye's comparative advantage in maintenance and repair services may gain a moderate comparative advantage in the coming years, with the preservation of its net exporter position. While being a net importer in government goods and services, insurance and pensions, financial services, charges for the use of intellectual property, telecommunications, and computer and information processing services throughout the period, a seasonal net importer position is observed in other business services and personal, cultural, and recreational services. Considering the comparative disadvantage in these services, policies to encourage exports in these services and technology infrastructure investments should be increased to gain a competitive advantage in international markets.

Based on this study, the sub-service sectors in which Turkiye's service sector can gain a competitive advantage in international markets are limited. Problems such as national and global economic conditions and insufficient national technology infrastructure reduce the competitiveness of the service sector in international trade. For this reason, international markets should be analyzed well, and the production of services that will meet the needs of global demand should be given importance. Human capital investments should be increased to increase the quality of technological assets and the workforce employed in the service sector.

Araştırma ve Yayın Etiği Beyanı

Makalenin tüm süreçlerinde Yönetim ve Ekonomi Dergisi'nin araştırma ve yayın etiği ilkelerine uygun olarak hareket edilmiştir.

Yazarların Makaleye Katkı Oranları

Makalenin tamamı Yazar tarafından kaleme alınmıştır.

Çıkar Beyanı

Yazarın herhangi bir kişi ya da kuruluş ile çıkar çatışması yoktur.

REFERENCES

Ambroziak, A. A., & Stefaniak, J. (2022). The position of China in trade in services within the European Union. *Oeconomia Copernicana, 13*(2), 335–354. doi:10.24136/oc.2022

Appleyard, D. R., & Field Jr., A. J. (2014). *International Economics.* United States: McGraw-Hill/Irwin.

Balassa, B. (1965). Trade liberalization and "'revealed" comparative advantage. *The Manchester School of Economics and Social Studies, 33*(2), 99-123.

Bhagwati, J. (1986). Economic Perspectives on Trade in Professional Services. *University of Chicago Legal Forum, 4*(1), 45-56.

Byungtaek, J. (2021). Current state and structure of international trade in services in the Republic of Korea. *Внешнеторговая деятельность*, 31-44.

Clark, C. (1940). *The Conditions of Economic Progress. London:MacMillan and Co Limited.*

Dimanov, D. K. (2021). Comparatıve advantages of greece ın ınternatıonal trade ın servıces for the perıod 2011-2020. *Konowledge International Journal, 48*(1), 91-95.

Dumrul, Y., & Kılıçarslan, Z. (2022). BRICS Ülkelerinin Hizmet Ticaretinde Açıklanmış Karşılaştırmalı Üstünlükleri. *Fiscaoeconomia, 6*(1), 99-117. doi:10.25295/fsecon.1034136

Eken, A. A., & Yazıcı, D. (2022). Türkiye'nin Hizmet İhracatının Yapısı. *Türkiye Cumhuriyet Merkez Bankası Ekonomi Notları*, 1-14. https://www.tcmb.gov.tr/wps/wcm/connect/4be334e6-af40-439e-a149-

3d91d1bba80b/en2204.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-4be334e6-af40-439e-a149-3d91d1bba80b-oh.suVq adresinden alındı

Fisher, A. G. B. (1935). *The Clash of Progress and Security. London: MacMillan and Co Limited*

Gaurav, K., & Bharti, N. (2018). India–Japan CEPA: What RCA Index Reveals for Trade in Services? *Foreign Trade Review, 53*(3), 189–203.

Hill, T. P. (1977). On Goods and Services. *The Review of Income and Wealth*, 315-338. doi: https://doi.org/10.1111/j.1475-4991.1977.tb00021.x

Hinloopen, J., & Van Marrewijk, C. (2001). On the empirical distribution of the Balassa index. *Weltwirtschaftliches archiv, 137*(1), 1-35.

Judd, R. C. (1964). The case for redefining of services. *Journal of Marketing, 28.* 59.

Lafay, G. (1992). The measurement of revealed comparative advantages. *International Trade Modeling.* içinde London: Chapman & Hill.

Lovelock, C. H. (2011). Towards A Classification of Services. Editors; C. W. Lamb, & P. M. Dunne içinde, *Theoretical Developments in Marketing* (s. 72-76). Chicago: Marketing Classics Press .

Nath, H. K., Liu, L., & Tochkov, K. (2015). Comparative advantages in U.S. bilateral services trade with China and India. *Journal of Asian Economics*, 79-92. doi:http://dx.doi.org/10.1016/j.asieco.2015.04.002

Paksoy, Ş. D. (2020). Türkiye'nin seçili ülkeler ile finansal hizmetler sektörü için karşılaştırmalı üstünlükler analizi. *III. Uluslararası Kahramanmaraş Yönetim, Ekonomi Ve Siyaset Kongresi* (s. 170-184). Kahramanmaraş: Avrasya Sosyo-Ekonomik Araştırmalar Derneği.

Rathmell, J. M. (1974). *Marketing in the Service Sector.* Cambridge: Winthrop Press.

Ricardo, D. (1817). *Siyasal İktisadın ve Vergilendirmenin İlkeleri* (6 b.). (B. Zeren, Çev.) İstanbul: Türkiye İş Bankası Yayınları.

Shohibul, A. (2013). Revealed comparative advantage measure: ASEAN-China trade flows. *Journal of Economics and Sustainable Development, 4*(7), 136-145.

Türkiye Cumhuriyeti Ticaret Bakanlığı. (2023, Şubat 1). *Hizmet Ticaret İstatistikleri.* Türkiye Cumhuriyeti Ticaret Bakanlığı: https://ticaret.gov.tr/hizmet-ticareti/hizmet-ticaret-istatistikleri#:~:text=2019%20y%C4%B1l%C4%B1nda%206%2C3%20trilyon,dolar%20seviyesine%20ula%C5%9Fm%C4%B1%C5%9Ft%C4%B1r%5B1%5D. adresinden alındı

Trade Map. (2023). *List of exporting markets for a service importing by Türkiye.* Trade Map Trade statistics for international business development: https://www.trademap.org/Country_SelServiceCountry_TS.aspx?nvpm=1%7c792%7c%7c%7c%7c%7c%7cS00%7c1%7c3%7c1%7c2%7c2%7c1%7c2%7c1%7c1%7c1 adresinden alındı

Trade Map. (2023). *List of importing markets for a service exported by Türkiye.* Trade Map Trade statistics for international business development: https://www.trademap.org/Country_SelServiceCountry_TS.aspx?nvpm=1%7c792%7c%7c%7c%7c%7c%7cS00%7c1%7c3%7c1%7c2%7c2%7c1%7c2%7c1%7c1%7c1 adresinden alındı

United Nations Statistics Division. (2016). EBOPS 2010 Overview of the service categories. *Regional Seminar on International Trade Statistics*, Ashgabat, Turkmenistan, 26-29 September 2016.

Widodo, T. (2009). Comparative Advantage: Theory, Emprical Measures and Case Studies. *Review of Economic and Business Studies*, 57-81.

World Bank . (2022). *Service exports (BoP, current US$).* https://data.worldbank.org/indicator/BX.GSR.NFSV.CD adresinden alındı

World Bank. (2022). *Employment in services (% of total employment) (modeled ILO estimate).* https://data.worldbank.org/indicator/SL.SRV.EMPL.ZS adresinden alındı

World Bank. (2022). *Trade in services (% of GDP).* https://data.worldbank.org/indicator/BG.GSR.NFSV.GD.ZS adresinden alındı

Wosiek, R., & Visvizi, A. (2021). The VWRCA Index: Measuring a Country's Comparative Advantage and Specialization in Services. The Case of Poland. *Economies, 9*(48), 1-12. doi:https://doi.org/10.3390/economies9020048