



## Analysis of international competitiveness in the furniture sector: The case of G20 countries

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### ABSTRACT

### Research Article

*Background and Aims* This study aims to determine the international competitiveness performance of G20 countries in the furniture sector and to comparatively analyze the structural differences among these economies.

*Methods* In order to compare the sectoral competitiveness of G20 countries, Balassa's Revealed Comparative Advantage (RCA) Index—widely accepted in the literature—was

used. Based on global trade data classified according to the Standard International Trade Classification (SITC Rev.3), the level of specialization of countries in sectoral competition was identified.

*Results* The analysis revealed that, in addition to China—which possesses a moderate level of international competitiveness (2.42)—Italy, Türkiye, Mexico, and Indonesia also demonstrate a significant comparative advantage in the furniture sector. Conversely, it was observed that developed economies such as the United States, Germany, France, the United Kingdom, and Japan do not hold international competitiveness in this sector.

*Conclusion* The findings indicate that developed countries invest in high technology intensive industries while meeting their demand for labor- and capital-intensive products through imports from developing economies. For developing countries—particularly Türkiye—strategic branding, transitioning to automation-based production, and expanding market share would be beneficial in establishing competitive superiority.

**Key Words:** RCA analysis, furniture industry, competitiveness, G20 countries

### Mobilya sektöründe uluslararası rekabet gücü analizi: G20 ülkeleri örneği

#### ÖZ

*Giriş ve Hedefler* Bu çalışma G20 ülkelerinin mobilya sektöründe uluslararası rekabet gücü performanslarını belirlemeyi ve bu ekonomiler arasındaki yapısal farklılıkları karşılaştırmalı olarak analiz etmeyi amaçlamaktadır.

*Yöntemler* G20 ülkelerinin sektörel rekabet gücüne göre karşılaştırılabilirliği için literatürde yaygın kabul gören Balassa'nın Açıklanmış Karşılaştırmalı Üstünlükler (RCA) İndeksi kullanılmıştır. Standart Uluslararası Ticaret Sınıflamasına göre sınıflandırılmış küresel ticaret verileri kullanılarak yapılan analiz ile ülkelerin sektörel rekabette uzmanlaşma düzeyleri belirlenmiştir.

*Bulgular* Mobilya sektöründe orta seviyede uluslararası rekabet gücüne sahip olan Çin'in (2,42) yanı sıra İtalya, Türkiye, Meksika ve Endonezya'nın da sektörel rekabet gücü açısından anlamlı bir üstünlüğe sahip oldukları belirlenmiştir. Buna karşın; ABD, Almanya, Fransa, İngiltere ve Japonya gibi gelişmiş ekonomilerin ise mobilya sektöründe uluslararası rekabet güçleri olmadığı görülmüştür.

*Sonuçlar* Elde edilen veriler; gelişmiş ülkelerin yüksek teknoloji yoğunluklu sektörlere yatırım yaptığı ve emek ve sermaye yoğun ürünlere yönelik ihtiyaçlarını ise gelişmekte olan ülkelere ithalat yoluyla karşıladıklarını göstermektedir. Türkiye başta olmak üzere gelişmekte olan ülkelerin stratejik markalaşmaları, otomasyona dayalı üretime geçmeleri ve pazar paylarını arttırmaları rekabet üstünlüğü kurma noktasında faydalı olacaktır.

**Anahtar Kelimeler:** RCA analizi, mobilya sektörü, rekabet gücü, G20 ülkeleri

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## 1. Introduction

The furniture sector is a production industry that extends from the design of products responding to functional needs such as seating, resting, storage, and working in residential, commercial, and institutional buildings to their industrial manufacturing and global commercial distribution. Beyond the production of tangible goods, the sector embodies a structure in which technical functionality is integrated with abstract value dimensions such as design, aesthetic rationality, ergonomic efficiency, and living comfort. While positioned at the core of traditional manufacturing layers, it operates at the intersection of industrial design processes, strategic retail management, complex logistics network operations, and project-based applications (URL-1, 2026; Koridze, 2022). With these characteristic features, the furniture industry can be defined as an economic activity field that harmonizes intensive use of labor and raw materials with advanced design innovation and technological transformation processes, holding potential for producing value-added products.

As one of the sectors contributing to economic development, growth, and employment worldwide, the furniture industry plays an important role in meeting demand in both national and international markets. Many countries, including Türkiye, hold a significant position in terms of furniture exports and imports. Türkiye, with its large domestic market potential, receives strong demand for furniture exports from Europe, the Middle East, North Africa, and other markets (ISO, 2023).

The globalization process has increased interdependence among countries in the world economy and has transformed international trade into the main driving force of economic growth and development. Moreover, the transparency of trade boundaries, declines in logistics costs, and technological innovations in packaging have accelerated the free movement of goods and services worldwide (Han et al., 2009).

In today's economic conditions, countries are engaged in a strategic competition to gain shares from global markets and increase their market presence, not limiting themselves to

domestic production and market areas. In this regard, the furniture sector—one of the most established branches of manufacturing—holds critical importance for many economies with its high value-added production, employment opportunities, and net-exporter structure (Özözen, 2024). High-income countries such as the United States, Italy, Germany, and Canada, which have dominated furniture production and exports, tend to lose their comparative advantages due to high labor costs and increasing import pressure. This gap is being filled by developing economies such as China, Vietnam, Poland, and Türkiye, which utilize abundant raw materials and low-cost production advantages (Han et al., 2009; Koridze, 2022).

The G20 is an international organization where the world's largest economies convene for global economic cooperation and decision-making processes. The G20 community represents a heterogeneous structure composed of nine developed economies (G8 countries and Australia), ten emerging market economies, and the European Union. Contrary to the public perception of "20 major economies," the institutional architecture of the group has been constructed by considering strategic factors such as global influence and regional leadership potential, in addition to economic size (Ayaz, 2014). The community represents 64% of the world population, approximately 90% of the global economy, and more than 80% of global trade (Larionova, 2017).

Foreign trade data of the G20 countries, which account for a significant share of global furniture production and consumption activities, were obtained from the UN Comtrade database published by the United Nations. In this study, the scope of the furniture industry was determined according to the Standard International Trade Classification (SITC Rev.3). Accordingly, furniture products classified under code "821" (furniture and parts thereof) and code "872.4" (medical, surgical, dental, and veterinary furniture) were included in the analysis. The global total furniture export data used in the study were generated by combining the export values of SITC 821 and SITC 872.4 product groups, and the obtained findings are presented in Table 1 (UN Comtrade, 2026).

**Table 1.** G20 countries in world furniture exports (\$)

Countries	2022	(%)	2023	(%)	2024	(%)
China	81.930.859.229,00	34,80	76.286.063.347,00	34,33	80.900.976.919,00	38,21
Germany	14.822.717.422,26	6,30	15.211.812.880,63	6,84	14.060.787.533,90	6,64
Italy	13.458.272.660,95	5,72	13.277.233.208,63	5,97	12.394.285.214,43	5,85
Mexico	10.431.366.493,00	4,43	10.934.299.042,00	4,92	10.652.223.791,00	5,03
United States	7.883.127.646,00	3,35	7.950.069.521,00	3,58	7.554.918.369,00	3,57
Canada	5.216.203.372,27	2,22	5.067.292.894,42	2,28	4.678.125.803,35	2,21
Türkiye	4.631.386.966,00	1,97	4.538.940.091,00	2,04	4.500.242.845,00	2,13
France	3.220.130.877,78	1,37	3.406.789.093,79	1,53	3.496.966.242,84	1,65
United Kingdom	2.620.113.107,72	1,11	3.027.866.671,49	1,36	3.126.796.584,08	1,48
Indonesia	2.864.838.051,00	1,22	2.211.529.177,19	1,00	2.340.720.942,76	1,11
India	2.217.460.229,15	0,94	1.951.392.026,84	0,88	2.127.683.714,47	1,00
South Korea	1.118.252.111,00	0,47	1.109.808.459,00	0,50	1.137.230.228,00	0,54
Brazil	971.932.619,00	0,41	896.465.985,00	0,40	896.488.115,00	0,42
Japan	777.791.122,68	0,33	707.845.876,05	0,32	694.158.874,61	0,33
South Africa	240.689.430,00	0,10	220.129.838,52	0,10	245.424.686,00	0,12
Australia	176.322.259,43	0,07	165.817.397,29	0,07	131.866.843,16	0,06
Saudi Arabia	51.178.507,52	0,02	56.215.154,60	0,03	59.734.002,51	0,03
Argentina	19.475.543,01	0,01	16.918.382,98	0,01	11.112.354,35	0,01
World Total	235.452.592.278,076		222.235.638.774,49		211.714.678.986,68	

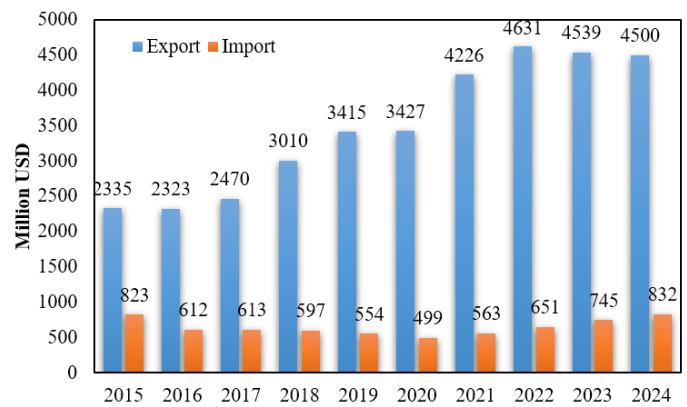
**Table 2.** G20 countries in world furniture imports (\$)

Countries	2022	(%)	2023	(%)	2024	(%)
United States	74.243.024.635,00	34,92	58.962.105.676,00	31,39	62.096.411.564,00	32,65
Germany	18.752.351.998,00	8,82	17.823.520.078,00	9,49	17.354.426.568,00	9,12
United Kingdom	3.675.496.458,00	1,73	10.163.661.657,00	5,41	10.627.816.698,00	5,59
France	11.162.358.472,00	5,25	10.237.913.951,00	5,45	10.049.868.457,00	5,28
Canada	8.432.934.287,00	3,97	7.661.685.213,00	4,08	7.308.807.473,00	3,84
Japan	7.587.973.117,00	3,57	6.848.374.236,00	3,65	6.740.673.876,00	3,54
Australia	5.399.850.812,00	2,54	3.940.858.600,00	2,10	4.451.555.527,00	2,34
Mexico	3.590.827.169,00	1,69	3.484.155.841,00	1,85	3.897.303.083,00	2,05
Italy	3.550.086.718,00	1,67	3.512.232.703,00	1,87	3.220.904.558,00	1,69
South Korea	3.214.179.211,00	1,51	2.946.412.941,00	1,57	3.164.782.955,00	1,66
Saudi Arabia	1.816.188.913,00	0,85	1.900.315.328,00	1,01	2.190.174.384,00	1,15
China	2.198.375.322,00	1,03	1.978.467.044,00	1,05	1.691.283.676,00	0,89
India	1.044.734.057,00	0,49	1.048.910.291,00	0,56	1.118.203.081,00	0,59
Brazil	863.157.937,00	0,41	807.534.033,00	0,43	1.054.579.523,00	0,55
Indonesia	764.808.966,00	0,36	782.614.406,00	0,42	890.067.569,00	0,47
Türkiye	650.967.333,00	0,31	744.787.122,00	0,40	832.460.572,00	0,44
South Africa	523.166.691,00	0,25	500.905.336,00	0,27	532.421.243,00	0,28
Argentina	353.952.820,00	0,17	346.898.716,00	0,18	315.579.697,00	0,17
World Total	212.623.113.665,07		187.840.883.697,26		190.198.104.686,47	

According to the table 1, global furniture exports amounted to 235.5 billion dollars in 2022, 222.2 billion dollars in 2023, and 211.7 billion dollars in 2024. Among the G20 countries, the largest furniture exporters are China, Italy, Germany, and Mexico. Compared to other countries worldwide, China is the largest furniture exporter in 2024, with an export value of 80.9 billion dollars, accounting for 38.2% of global furniture exports. In 2024, China significantly increased its share of global furniture exports compared to 2022 (34.8%) and 2023 (34.3%). Türkiye, with 4.5 billion dollars of furniture exports in 2024, accounts for 2.1% of global furniture exports, and its share has shown an upward trend over the years. Table 2 presents the global furniture import data of the G20 countries, compiled from the combined import values of SITC 821 and SITC 872.4 product categories (UN Comtrade, 2026).

Global furniture imports decreased from \$212.6 billion in 2022 to \$187.8 billion in 2023, and then showed a recovery trend, rising to \$190.2 billion in 2024. The United States has been the country with the largest share of global furniture imports, accounting for approximately one-third of total world imports. In 2024, it imported furniture valued at 62.1 billion dollars, corresponding to 32.7% of global furniture imports. High-income countries such as Germany (9.1%), United Kingdom (5.6%) and France (5.3%) also rank among the major furniture-importing countries with their substantial import volumes. Türkiye's import volume of 832.5 million dollars corresponds to only 0.44% of global furniture imports. The Turkish furniture sector, which increasingly targets global markets, has maintained its position as a net exporter and has become a sector that generates a foreign trade surplus.

The furniture foreign trade data for the G20 countries indicate a pronounced geographical concentration and divergence in their import- and export-oriented activities. It is observed that the demand concentrated in the United States and other developed countries is met predominantly by China and several developing producer countries. Figure 1 illustrates Turkey's furniture sector import and export data for the period 2015–2024, which were obtained by combining the trade values of SITC 821 and SITC 872.4 product groups (UN Comtrade, 2026).

**Figure 1.** Import and export data for Türkiye's furniture sector

According to the foreign trade data of Türkiye's furniture sector, the export rate increased by approximately 50% during the period from 2015 to 2024. While exports displayed a consistent upward trend, the limited increase in import figures over the same period has enabled Türkiye to maintain its position as a net exporter. The high export volumes observed in recent years reflect the surge in demand following the COVID-19 pandemic, whereas the subsequent horizontal trend indicates cost pressures and demand fluctuations within the sector.

The methods used in studies on sectoral competitiveness analysis can be listed as Revealed Comparative Advantage (RCA) (Han et al. 2009), the Vollrath Competitiveness Index (Maqbool et al. 2023), the Trade Specialization Index (TSI) (Tabata, 2006), the Lafay Index (LFI) (Ishchukova and Smutka, 2013), the Net Export Index (NEI) (Yalçın, 2024), and the Revealed Symmetric Comparative Advantage (RSCA) index (Wang et al. 2022).

The main advantages of the Revealed Comparative Advantage (RCA) method include the easy calculation of countries' sectoral specialization levels, the accessibility of a single type data based on export values, its ability to enable cross-country comparisons, and its status as one of the most widely used methods in competitiveness analysis. On the other

hand, it is criticized for not taking into account countries' import data (Balassa, 1965; Vollrath, 1991).

There are numerous studies that determine the international competitiveness of the forest products sector—which encompasses the furniture industry—and compare countries based on their competitive performance.

Han et al. (2009) conducted a comprehensive analysis of the global competitiveness of China's wooden furniture industry and its development over the preceding fifteen years. Using the RCA index, they examined China's transformation from a labor-intensive production hub into the world's largest exporter, driven by low labor costs. Despite China's substantial increase in market share, the study emphasized that the country lags behind Italy and Germany in terms of product quality and faces significant challenges such as rising raw material costs and international trade barriers.

Grzegorzewska et al. (2021) analyzed the international competitiveness of selected European Union countries in the furniture sector by employing outcome-oriented economic indicators. Based on data covering the period from 2009 to 2018, they found that countries such as Poland, Romania, and Italy possess the highest competitive advantage. In contrast, although Germany is the largest furniture exporter in Europe, its high import volume limits its competitive strength, while France and the United Kingdom were found to be unable to achieve competitive superiority.

Epede and Wang (2022) analyzed the competitiveness of the global wooden furniture industry using an extensive dataset covering 25 different countries using the RCA Index. Their findings highlight that traditional raw material abundance alone no longer constitutes a competitive advantage; Asian countries such as Vietnam and China have risen to leading positions by enhancing their technological capacities, while African countries with abundant forest resources remain confined to low value-added activities. The study also emphasized that global trade is shifting from the production stage toward high-return segments such as design and marketing.

Jiang and Dai (2023) examined the international competitiveness of the ten largest exporting countries in the forest products industry. Their results show that China, Germany, and Italy are the countries with the highest competitiveness in overall forest products trade, while Brazil and Poland are identified as the fastest-growing actors in this field.

Panico et al. (2024) evaluated the changes in Italy's competitiveness in the furniture and wood panel industry using RCA index and Revealed Symmetric Comparative Advantage (RSCA) index. The authors stated that Italy is an important exporter in the global furniture market, while it holds a net importer position in wood panel products. They also reported that China is the leading exporter in the examined product categories.

Wikantari et al. (2026) analyzed the position of the Indonesian wooden furniture industry in the global market using the RCA Index and Porter's Diamond Model. They reported that Indonesia possesses a strong comparative advantage due to its abundant natural resources, certified labor force, and supportive industrial ecosystem; however, the sector faces structural barriers such as insufficient technological infrastructure and inadequate capital investment. Based on data covering the years

2001–2022, the authors stressed that, in order for local producers to compete with rivals such as China and Vietnam, they must focus on product differentiation, digitalization, and sustainable recycling-based designs.

When the studies in the literature are evaluated together, it is seen that the Revealed Comparative Advantage (RCA) index is widely used in determining the international competitiveness of the furniture and forestry products sector. Studies shaped within the framework of different data sets, time periods, country groups, and methodological approaches reach a noteworthy conclusion. In furniture trade, China is a net exporter, while the United States is a net importer. These studies support the current research in terms of theoretical and methodological structure.

This study aims to contribute to evaluation of the sectoral competitive structures by comparatively analyzing the G20 countries, which are at the center of world furniture production and trade.

The majority of existing studies focus on specific country groups, regional markets, or the sectoral performance of a single country. This study aims to contribute to evaluation of the sectoral competitive structures by comparatively analyzing the G20 countries, which are at the center of world furniture production and trade. The research will also reveal the relationship between the level of development and competitiveness of countries in the furniture sector.

## 2. Material and Methods

### 2.1 Material

In order to determine the international competitiveness of G20 countries in the furniture sector, export data compiled from the UNCOMTRADE database were used. Data covering the years 2015–2024 corresponding to furniture sub-sectors classified according to the Standard International Trade Classification Revision 3 (SITC Rev.3) were evaluated. The raw data used in this study consists of the sum of furniture industry data belonging to SITC 821.1, SITC 821.2, SITC 821.3, SITC 821.5, SITC 821.7, SITC 821.8 and SITC 872.4 codes. The furniture sub-sector groups classified into seven categories under SITC Rev.3 are presented in Table 3 (UN Comtrade, 2026).

**Table 3.** Furniture sub-sector groups

SITC Code	Furniture Sub-Sector Group
SITC 821.1	Seating furniture
SITC 821.2	Bedding and similar items
SITC 821.3	Metal furniture
SITC 821.5	Wooden furniture
SITC 821.7	Furniture made of other materials
SITC 821.8 821.3, 821.5 ve 821.7	Parts and components of the furniture in this group
SITC 872.4	Furniture used in medicine, surgery, dentistry, and veterinary medicine, and their parts and components

### 2.2 Methods

To determine the international competitive advantages of G20 countries in the furniture sector, the Revealed Comparative Advantage (RCA) index developed by Béla Balassa was

employed. The RCA index is an indicator designed to measure a country’s competitiveness in international trade for a specific product or sector and enables comparative evaluations across countries (Balassa, 1965). The RCA index is defined as the ratio of a country’s exports in a particular sector to its total exports, divided by the ratio of world exports in the same sector to total world exports. The RCA index is based on a comparison between a country’s domestic specialization in a particular good and the world’s specialization in that good (Beningo, 2005; Stellian et al., 2019). The Balassa Revealed Comparative Advantage index is formulated in Equation 1 (Balassa, 1965; Hinloopen and Marrewijk, 2001).

$$RCA_{ij} = \frac{\left(\frac{X_{ij}}{X_{it}}\right)}{\left(\frac{X_{wj}}{X_{wt}}\right)} \quad (1)$$

Here:  
 Xwj: world exports of product/sector j  
 Xwt: total world exports  
 Xij: exports of country i for product/sector j  
 Xit: total exports of country i

Hinloopen and Marrewijk (2001) expressed the coefficients calculated in the Balassa index using a four-group classification, enabling a more detailed interpretation (Table 4).

Balassa index is one of the competitiveness indicators frequently used in international competitiveness analyses. It is

preferred because it is easy to understand and apply, allows for comparisons among countries, facilitates sectoral specialization assessments, and enables the observation of changes in sectoral competitiveness over time (Vollrath, 1991).

**Table 4.** Classification of the Balassa index

Group No	RCA Value	Description
Group-1	0 < RCA < 1	There is no comparative advantage/competitiveness.
Group-2	1 ≤ RCA < 2	There is a weak comparative advantage/competitiveness.
Group-3	2 ≤ RCA < 4	There is a moderate comparative advantage/competitiveness.
Group-4	RCA ≥ 4	There is a strong comparative advantage/competitiveness.

### 3. Results and Discussion

In this study, the international competitiveness of G20 countries in the furniture sector was analyzed using the RCA index. An RCA value greater than 1 indicates that the respective country has a comparative advantage in the sector, while a value below 1 signifies a competitive disadvantage. The results obtained demonstrate a clear divergence in competitiveness among the countries. Foreign trade data for Russia for the years 2022 and beyond is unavailable. Therefore, RCA values were not calculated for those years. Table 5 presents the RCA index values for the furniture sector in G20 countries.

**Table 5.** G20 countries furniture sector RCA index values

Countries	2015	2016	2017	2018	2019	Avg.	2020	2021	2022	2023	2024	Avg.
China	2,55	2,48	2,52	2,53	2,45	2,51	2,35	2,38	2,28	2,29	2,34	2,33
Italy	2,19	2,14	2,15	2,19	2,06	2,15	1,89	2,01	2,04	1,99	1,97	1,98
Türkiye	1,46	1,44	1,45	1,67	1,79	1,56	1,78	1,73	1,82	1,81	1,78	1,78
Mexico	1,91	1,95	1,94	1,79	1,67	1,85	1,49	1,64	1,81	1,87	1,78	1,72
Indonesia	1,10	1,06	0,96	0,95	1,13	1,04	1,20	1,17	0,98	0,87	0,91	1,03
Germany	0,87	0,87	0,88	0,88	0,88	0,88	0,82	0,86	0,88	0,90	0,89	0,87
Canada	1,01	1,11	1,07	1,03	1,00	1,04	0,90	0,83	0,87	0,91	0,88	0,88
United Kingdom	0,56	0,62	0,69	0,63	0,69	0,64	0,56	0,49	0,49	0,59	0,62	0,55
France	0,51	0,52	0,54	0,53	0,50	0,52	0,50	0,49	0,51	0,52	0,55	0,51
India	0,38	0,41	0,41	0,44	0,47	0,42	0,52	0,58	0,49	0,46	0,51	0,51
United States	0,55	0,54	0,56	0,49	0,45	0,52	0,41	0,37	0,38	0,40	0,38	0,39
Brazil	0,31	0,32	0,30	0,31	0,31	0,31	0,30	0,34	0,29	0,27	0,28	0,30
South Africa	0,41	0,36	0,32	0,31	0,29	0,34	0,20	0,16	0,20	0,20	0,23	0,20
South Korea	0,19	0,21	0,20	0,20	0,20	0,20	0,17	0,16	0,16	0,18	0,17	0,17
Japan	0,12	0,14	0,13	0,14	0,13	0,13	0,10	0,11	0,10	0,10	0,10	0,10
Australia	0,05	0,05	0,05	0,05	0,05	0,05	0,04	0,03	0,04	0,05	0,04	0,04
Saudi Arabia	0,03	0,03	0,03	0,03	0,02	0,03	0,03	0,02	0,01	0,02	0,02	0,02
Argentina	0,07	0,05	0,05	0,04	0,03	0,05	0,02	0,01	0,02	0,03	0,01	0,02
Russia	0,07	0,08	0,09	0,09	0,10	0,09	0,12	0,13	-	-	-	-

Countries are ranked according to 2024 data.

According to Table 5, China, Italy, Türkiye, Mexico, and Indonesia—whose RCA values exceed 1—are among the countries that possess competitiveness in the global furniture sector. The remaining countries with RCA values below 1, however, exhibit competitive disadvantage. The classification of countries based on the results of the RCA analysis is presented in Table 6.

As shown in Table 6, G20 countries are divided into three groups in terms of their international competitiveness in the furniture sector. China and Italy possess a moderate level of

competitive advantage, while Türkiye, Mexico, and Indonesia exhibit a weak competitive advantage. The remaining G20 countries do not possess competitiveness in international markets.

It is observed that only a limited number of countries possess a moderate level of sectoral competitiveness. In particular, China demonstrates absolute superiority among all countries, as its sectoral RCA value remains above 2 throughout the period 2015–2024, with an average RCA value of 2.42. According to 2024 data, China alone accounts for 38% of global furniture

exports and has become a country with a substantial foreign trade surplus in the furniture sector. China, which holds one-third of global furniture exports, also has a significant share in the export of wood-based finished products. Furthermore, with its large raw material imports, enormous production capacity, and export potential, it is at the center of the global value chain. China's forestry industry occupies a central position in the global value chain. However, it faces a high degree of homogeneous competition with repetitive production in small batches, low quality, overcapacity, and low profits. It must gradually transform its high-volume production strategy into high-quality production and upgrade from a sectoral production center to an innovation center (Jiang and Su, 2023). Although Italy's RCA value has shown a decline in recent years, its average RCA value of approximately 2.07 for the 2015–2024 period places it as the second country demonstrating a moderate level of competitive advantage. Damlayıcı and Arslan (2024) note that countries such as China, Germany, Italy, Poland, and Vietnam are prominent in furniture exports and contribute significantly to their national economies. Italy, accounting for approximately 6% of global furniture exports, has made significant contributions to the furniture sector for years through innovations in diverse designs and flat-pack furniture (Yeşilkaya and Çabuk, 2026).

**Table 6.** Classification of countries according to RCA analysis results

$0 < \text{RCA} < 1$	$2 \leq \text{RCA} < 4$
Germany, Canada, United Kingdom, France India, United States, Brazil, South Africa South Korea, Japan, Australia Saudi Arabia, Argentina, Russia	China, Italy
$1 \leq \text{RCA} < 2$	$\text{RCA} \geq 4$
Türkiye, Mexico, Indonesia	-

Countries with weak sectoral competitiveness include Türkiye, Mexico, and Indonesia. Among these countries—whose RCA values exceed the threshold of 1.00—Türkiye's position is particularly noteworthy. Specifically, Türkiye increased its RCA average from 1.56 in the 2015–2019 period to 1.78 after 2020, demonstrating an acceleration in competitiveness. This performance can be associated with expanded production capacity, market diversification, and enhanced international integration processes. According to 2024 data, Turkey's share of global furniture exports is 2.13%. Türkiye's low share of global furniture exports is a major factor weakening its competitiveness. On the other hand, the increase in exports in recent years is an indication that Türkiye has increased its investments in the furniture sector (Yeşilkaya and Çabuk, 2026). According to the furniture sector report prepared by ISO (2023), the capacity utilization rate of the Turkish furniture industry reached 75.8% in 2023. Increasing capacity utilization rates will contribute to gaining a larger share in international markets (Çayır and Ersen, 2025). Mexico's RCA values fluctuating within the 1.7–1.9 band reflect the strategic advantage provided by logistical benefits and regional integration with the North American market.

Canada and Indonesia are considered to be at a threshold level in terms of sectoral competitiveness, and therefore may exhibit vulnerability to extraordinary conditions that may arise

in international markets. Due to the market share pressure exerted by countries with strong positions in global competition, the competitiveness of these countries may be adversely affected, causing them to deviate from the benchmark value. In particular, Canada has shown a tendency to deviate from the benchmark value over the past five years, signaling a contraction in its market share. Daulay et al. (2022) conducted a study comparing the global competitiveness of Indonesia's furniture industry with that of Vietnam. They noted that Vietnam has increased its market share through low labor costs, foreign investment support, and aggressive promotional activities. In light of this situation, they emphasized that Indonesia must promote design innovations and expand its marketing networks through international fairs in order to strengthen its position in the global competitive environment.

Most developing countries are dependent on natural resources and basic commodities for export and have a lower share in the industrial sector. Economic growth requires the production of high value-added products from natural resources and a shift to the use of high technology. In developed countries, however, economic development is based on a high-technology intensive industrial structure, continuous innovation, the production of high value-added industrial goods, and the export of high technology (Sojoodi and Baghbanpour, 2024). Developed countries such as the United States, Germany, France, Japan, and the United Kingdom are among those that do not possess a competitive advantage in the furniture sector. This situation supports the argument that advanced economies with high income levels are directing their investments toward high-technology and high value-added industries rather than the furniture sector. Accordingly, these countries have gradually shifted from a production-oriented structure to a consumption-oriented structure within the furniture industry (Yeşilkaya and Çabuk, 2026). Epede and Wang (2022) stated that developed countries, which initially dominated the sector, failed to maintain their competitive power and have become increasingly challenged due to the rise of developing countries achieving highly competitive positions, resulting in a decline in their market shares. Damlayıcı and Arslan (2024) emphasized that the United States imports more furniture than it exports, creating a sectoral foreign trade deficit, and thus represents an important and profitable market for exporting countries. The fact that approximately 32% of global furniture imports in 2024 were carried out by the United States and that developed countries rank at the top of global import statistics supports these findings.

Countries such as Argentina, Saudi Arabia, South Africa, and South Korea have RCA values close to zero, indicating that they do not possess competitiveness in the furniture sector. Moreover, the absence of an upward trend in competitiveness and export performance over time demonstrates that their competitive capacity has not developed structurally. The petroleum-based economy of Saudi Arabia and the high inflation and production costs of Argentina negatively affect the development and competitiveness of the furniture sector in these countries. The focus of many African countries on low value-added activities such as forest harvesting and raw timber exports results in the furniture sector remaining insignificant within their foreign trade structures (Epede and Wang, 2022). When evaluated in the context of these countries, it is evident that they will not be able to become prominent actors in global

furniture trade unless they shift toward the production of value-added products, and due to limited production capacities, their economic structures remain oriented toward satisfying domestic demand rather than addressing foreign trade concerns.

#### 4. Conclusion

In the present study, the competitiveness of G20 countries in global furniture exports was calculated using the RCA analysis, and their competitive positions were comparatively examined. Since the G20 community includes both developed and developing countries, the competitive positions of countries can be revealed more clearly in relation to their level of development. Indeed, the findings indicate that developed countries tend to be import-oriented in the furniture sector, while developing countries exhibit a more competitive advantage in furniture exports. In other words, developing countries with low production costs stand out in the production of low-technology and low value-added products, whereas developed countries with high production costs stand out through the production of high-technology and high value-added goods.

Although China and Italy have different production approaches based on cost and quality, they play a significant role in the global value chain. In this regard, it indirectly influences the production processes of other countries through supply chain linkages. However, the sustainability of this performance depends on maintaining the cost advantage as well as the success of the transition process to high-quality and value-added production. Accordingly, China's future competitive strategy is expected to focus not only on low-cost mass production but also on new technology, intelligent manufacturing, original design, and brand development (Zhang and Zhu, 2026; Gupta, 2023).

Mexico's global competitiveness index value, which fluctuates within a narrow range, is associated with its strategically advantageous proximity to the North American market. In fact, the United States—holding more than 30% of global furniture imports—constitutes an important market opportunity for Mexico due to this geographical proximity.

Turkey has demonstrated a steadily strengthening competitive advantage in the furniture sector over the years and is among the countries that are consistently strengthening their position in the global market. The findings show that Turkey has not only achieved short-term export growth but has also entered a process of building structural and sustainable competitive capacity in the furniture industry. Despite the contraction in global trade volume and economic uncertainties, the continued upward trend in furniture exports demonstrates Turkey's ability to increase its effectiveness in international markets and move towards a stronger position in the global value chain. This is directly related to the development of production capacity, the increase in capacity utilization rates, the diversification of export markets, and the improvement in the sector's foreign trade performance.

Furthermore, increasing the number of internationally recognized brands, reducing energy and raw material costs to levels that support a competitive production structure, widespread adoption of a high-quality production approach, and the integration of digital transformation and automation-based production systems into the sector are strategic elements that can further enhance Turkey's competitiveness in global furniture

trade. In particular, increasing the capacity for design, innovation, sustainable production, and high value-added product development can significantly contribute to Turkey moving away from being a producer solely based on cost advantage and becoming one of the countries that compete globally with a focus on brands and technology.

The steadily increasing furniture demand in developed economies presents a critical window of opportunity for the expansion and structural modernization of the global industry. Particularly, the consumption habits of high-income countries have become a fundamental factor shaping future trends in the sector. This dynamic market structure requires both an operational and strategic roadmap for developing countries and Türkiye. Implementing sectoral policy recommendations will positively optimize countries' competitive strengths within the balance of global trade.

Due to the RCA index used in the study is based solely on export data, it cannot directly reflect some structural elements affecting competitiveness, such as import performance, technology level, brand value, and value-added structure. In addition, while the inclusion of G20 countries in the research has significant advantages, other countries with high competitiveness may not have been included in the evaluation. Studies focusing on quantitative foreign trade data lead to the exclusion of the sector's institutional and structural dynamics. Furthermore, the results obtained may vary due to differences in various databases and sectoral product groupings."

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