

# Consumer ethnocentrism under the circumstances of the COVID 19 virus pandemic<sup>1</sup>

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## Abstract

**Background:** The new circumstances of life due to the proclamation of the COVID 19 virus pandemic have caused numerous changes both in general people's lives and in consumption.

**Purpose:** The aim of this paper is to identify changes in the degree of consumer ethnocentrism when choosing products during the COVID 19 virus pandemic, compared to the period before its occurrence. In addition, differences in consumer preferences for certain domestic products and services before and during the pandemic were analyzed. The paper also deals with differences in ethnocentric tendencies during the pandemic between different socio-demographic consumer segments.

**Study design/methodology/approach:** The primary data were collected from 176 respondents by using the survey method. A paired samples t test is used for hypotheses testing. Independent samples t test and Anova, post hoc Scheffe test, were conducted for analysing differences in ethnocentric tendencies between observed consumer segments during the pandemic.

**Findings/conclusions:** Higher level of consumer ethnocentrism is confirmed in period during the pandemic, especially when it comes to choice of domestic medical products. On the other hand, lower level of consumer ethnocentrism is observed for fashion products and insurance during the pandemic. Older consumers and pensioners exhibit stronger ethnocentric tendencies during the pandemic.

**Limitations/future research:** The main limitation of the paper relates to the use of only a few of the 17 statements within the CET scale for measuring ethnocentric tendencies before and during the pandemic. Also, the research did not cover all categories of domestic products and services. According to the limitations, future studies are recommended to fully apply the CET scale for measuring consumer ethnocentrism. Also, the recommendation is to observe higher number of categories of products and services, and to break down the categories into several subcategories. Finally, future studies can also include some of the determinants of consumer ethnocentrism in the research model.

## Keywords

consumer ethnocentrism, CET scale, pandemic, COVID 19, Serbia

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## Introduction

The concept of ethnocentrism has been the subject of interest of a large number of authors from various fields for several decades now. Ethnocentrism relates to the evaluation of others' cultures based on one's own cultural values and norms (Chaudhry, ali Mughal, Chaudhry & Bhatti, 2021). Ethnocentrism is both a sociological concept and a psychological construct according to which individuals see their group as more important than others. In other words, ethnocentrism is an attitude that makes people believe that their group is the centre of everything, while all other groups, both past and present, are not as good as theirs (Bizumic, 2019). Accordingly, ethnocentrism is based on the attitude that one's group is dominant compared to others, and behavior that implies strengthening ties with one's own and the absence of ties with other groups (Veljković, 2006). Hence, ethnocentric individuals favor members of their own group while members of other group held in contempt (Prince, Yaprak & Palihawadana, 2019). Consequently, ethnocentrism is based on group boundaries and can have negative implications such as ethnic conflicts, instability of democratic institutions, discriminatory behaviors, or even war (Smyczek & Glowik, 2011).

A somewhat newer term "consumer ethnocentrism" was derived from the term "ethnocentrism". Consumer ethnocentrism is often confused with country-of-origin bias, although the two terms are different. Precisely, consumer ethnocentrism represents a general tendency to avoid buying foreign products due to nationalistic reasons, while country-of-origin bias is related to the specific image of the country of origin of the product (Shankarmahesh, 2006). Consumer ethnocentrism is associated with the patriotic feeling that it is necessary and moral to buy domestic products (Kostić, Stanišić & Marinković, 2021); hence, it goes beyond economic and functional features of products. In other words, ethnocentric consumers feel the need to support their own country by buying domestic products and rejecting foreign products due to the notion that it may harm their nation's economy (Vuong & Giao, 2020). Accordingly, consumer ethnocentrism links to the preferences for domestic products, i.e. it implies the belief that buying foreign products is immoral and unpatriotic, harms the domestic economy and increases unemployment (Shimp & Sharma, 1987). Hence, Siamagka & Balabanis

(2015) describe consumer ethnocentrism as a means to understand the moral concerns related to the consumption of foreign and domestic products. In general, consumer ethnocentrism implies the tendency of consumers to avoid foreign products, regardless of their price and quality, due to nationalistic reasons (Shankarmahesh, 2006). According to Marinković (2017), encouraging consumers to buy domestic products positively influences domestic production and employment, especially when country is facing an economic crisis.

Even though the concept of consumer ethnocentrism derives from the concept of ethnocentrism, it is important to point out that it encompasses not only the sociological but also the economic dimension. Consequently, consumer ethnocentrism is the subject of study not only by sociologists but also by macroeconomists and marketers. The assessment of ethnocentric tendencies can help marketers to understand consumers' inclination towards accepting or rejecting foreign and domestic products and brands (Das & Mukherjee, 2020). Consumer ethnocentrism is an important construct to be taken into account since the origin of the product may not be significant to all consumers as a sector the brand does business in (Furman & Maison, 2020). Consumer ethnocentrism assessment is important not only for the formulation and implementation of proper marketing strategies, but also for the investment in domestic economy (Kostić et al., 2021). Following previous studies in the Republic of Serbia, the highest level of consumer ethnocentrism was manifested in Central Serbia, followed by Belgrade, while the lowest level of ethnocentrism was recorded in Vojvodina (Marinković, 2017).

Consumers exhibit different levels of ethnocentrism due to many factors that may be related to the characteristics of the country in which consumers live, but also to their demographic and socio-economic characteristics and lifestyle. Also, consumer ethnocentrism level is highly associated with the characteristics of the product's country of origin and category of the product which consumers evaluate and purchase (Veljković, 2006). However, neither countries nor consumers are isolated from the changes at the global level, which can best be seen through the consequences of the current COVID 19 virus pandemic. Thus, in the period of the previous economic crisis, Smyczek & Glowik (2011) pointed to a change in consumer behavior in the

form of strengthening ethnocentric tendencies, especially among those who perceived the impact of the crisis extremely negatively. A similar interpretation gives Gómez-Díaz (2021). Namely, the author points out that since ethnocentric consumers are guided by economic motives when choosing domestic products, during the economic crisis it is quite logical to expect a strengthening of the influence of ethnocentrism on their purchasing behavior. According to Siamagka & Balabanis (2015), consumer ethnocentrism during crisis serves as a self-defence reflex of domestic economy, organizations and individuals against foreign competition and imports. Consequently, it can be concluded that there was an increase in ethnocentric tendencies during the current COVID 19 virus pandemic (Boulouta & Manika, 2022).

Based on the above findings, the paper aims to analyse the degree of consumer ethnocentrism during and before the COVID 19 virus pandemic. Also, the paper investigates differences in consumer preferences for different domestic products and services in the observed periods. Additionally, the paper deals with differences in ethnocentric tendencies during the pandemic between different socio-demographic consumer segments. For these purposes, primary data were collected from 176 respondents with different demographic and socio-economic characteristics, as well as the status of infection with the virus. Regarding the paper structure, the first part considers the most important theoretical knowledge about consumer ethnocentrism and how to measure it. The following section presents the results of previous studies by foreign authors who analyzed consumer ethnocentrism during the current pandemic. The third part of the paper gives the most important elements of empirical research. The research was conducted starting from the observed research gap in the domestic literature which lacks studies regarding the level of consumer ethnocentrism at the time of the pandemic. At the end of the paper, the concluding part summarizes the knowledge acquired by the study, then points out the most significant contributions and limitations of the work and provides guidelines for future research.

## 1. Consumer ethnocentrism

Consumer ethnocentrism is an important concept for studying in the field of international marketing and consumer behavior. It represents a normative factor of consumer purchasing attitudes and intentions. More precisely, consumer

ethnocentrism affects decisions of whether to buy foreign or domestic products. The concept itself and its measures were conceived in developed countries, where research showed that consumers have more positive attitudes towards domestic products (Kibret & Shukla, 2021). On the other hand, consumers in developing countries prefer foreign products because they are attracted by foreign countries and tend to identify with global consumers (Verma & Naveen, 2021). Consequently, Karoui & Khemakhem (2019) state that domestic consumption in developing countries should be more encouraged due to the fact that the economy of the developing countries is vulnerable in the face of the foreign competition from the developed countries. Similar, Gómez-Díaz (2021) points out that not only the survival of developing countries is important for the global market, but it is also important to strengthen domestic capacities and promote domestic production and consumption.

Consumer ethnocentrism is based on the fact that consumer ethnocentric tendencies influence the choice and purchase of domestic and foreign products and brands. Namely, consumer ethnocentrism is negatively correlated with the purchase of foreign products; higher degree of consumer ethnocentrism implies less favorable attitudes toward foreign products and their purchase (Karoui & Khemakhem, 2019). This attitude of ethnocentric consumers is based on the belief that the purchase of foreign products endangers the domestic economy and leads to rising unemployment in the country. In addition to the above, consumer ethnocentrism provides an individual with a sense of belonging and identity, as well as a guide to which purchases are accepted within the group and which are not (Shimp & Sharma, 1987). In other words, consumer ethnocentrism transfers the superior feeling of one's group into economic actions related to the purchase of domestic products and boycott foreign ones (Ma, Yang & Yoo, 2020). Fernández-Ferrín, Bande, Martín-Consuegra, Díaz & Kastenholz (2020) state that highly ethnocentric consumers even contempt foreign products.

Unlike non-ethnocentric, ethnocentric consumers are more conservative and guided by tradition, which is why the use of domestic products fits into their view of life and gives them a sense of pride and moral obligation to support the domestic economy (adapted from Fernández-Ferrín, Calvo-Turrientes, Bande, Artaraz-Miñón & Galán-Ladero, 2018). Ethnocentric consumers

perceive higher quality and have a stronger emotional attachment to domestic products, which is why they prefer local products over imported ones, often without a rational reason (Casado-Aranda, Sánchez-Fernández, Ibáñez-Zapata & Liébana-Cabanillas, 2020). In other words, ethnocentric consumers buy certain products mainly due to emotional or moral reasons, while economic or rational motives are less important (Smyczek & Glowik, 2011). Also, highly ethnocentric consumers can even make wrong judgments and overestimate domestic products. Consequently, Zeren, Kara & Gil (2020) state that domestic products of lower quality or higher price may be preferred over foreign ones, even though such action is against consumers' economic interests. Hence, Marinković (2017) indicated that it should be considered whether it is justified to encourage consumers to buy domestic products with lower quality. According to Marinković, Stanišić & Kostić (2011), ethnocentric consumers blame buyers of foreign products for the problems of the domestic economy, especially unemployment, while non-ethnocentric consumers tend to meet their needs in the best way, regardless of the geographical origin of the product. In other words, non-ethnocentric consumers evaluate foreign products by using their own merits related to price, quality or other product features (Watson & Wright, 2000). They simply compare domestic and foreign products by quality, price, or performance and select the best one (Camacho, Ramírez-Correa & Salazar-Concha, 2022), or even have more favorable attitudes towards foreign products precisely because they are manufactured outside of the country (Shimp & Sharma, 1987). However, it is important to note that the positive attitude of ethnocentric consumers toward domestic products does not automatically imply the negative attitude towards foreign products, especially in times of globalization that encourages international cooperation, which makes it increasingly difficult for consumers to distinguish between domestic and foreign brands (Siemieniako, Kubacki, Glińska & Krot, 2011). In other words, globalization has enabled consumers, especially those in the lower classes, easier access to foreign companies and the purchase of products without the need to travel (Aljukhadar, Boeuf & Senecal, 2021), which in turn affects their ethnocentric tendencies. The level of ethnocentrism that consumers manifest within a country depends on many factors such as the history and culture of a nation, economic

development, openness to the world (Veljković, 2006), patriotism, conservatism, animosity, consumer demographic characteristics (Shankarmahesh, 2006), and before mentioned globalization and global consumer culture (Bizumic, 2019). Also, it is important to mention that the level of ethnocentrism can be different in different countries or cultures, or even for different population segments within one country.

Given the interest that consumer ethnocentrism has aroused in marketers and other researchers, a large number of authors have devoted themselves to measuring it. As a result of these attempts, several different scales for measuring consumer ethnocentrism have been developed. The most commonly used scale is Shimp & Sharma's (1987) scale in the literature known as the CET scale (*Consumer Ethnocentric Tendency Scale - CET*). This scale proved to have good psychometric properties when used to measure ethnocentric tendencies (Fernández-Ferrín et al., 2020). The scale was developed as the result of the authors' tendency to provide a unique scale for measuring ethnocentrism, which is relevant to the study of consumer behavior and marketing. The CET scale consists of 17 statements measured on a seven-point Likert scale. To determine the level of consumer ethnocentrism, the CET scale allows calculating the score ranging from 17 to 119. A score of 17 implies the lowest level of consumer ethnocentrism while a score of 119 indicates the absolute orientation of consumers to buy domestic products (Marinkovic, 2017). Yet, it is important to mention that ethnocentric tendencies can also be measured outside of the 17-119 range, on the five-point or nine-point scale. The statements of the CETSCALE measure the consumers' tendency, which may precede attitudes, to act consistently towards foreign and domestic products (Watson & Wright, 2000). By using the CETSCALE on the American consumers' sample, Shimp and Sharma (1987) proved several propositions: (1) that scores on the CETSCALE are negatively correlated with consumers' beliefs, attitudes and purchase intentions toward foreign products; (2) that scores on the CETSCALE are negatively correlated with consumers' foreign-product behavior; and (3) that consumers' ethnocentric tendencies are especially noticeable among individuals whose quality of life and economic situation are threatened by foreign competition. The importance of this scale is confirmed by a large number of studies that have used it to measure consumer ethnocentrism with original or modified statements, all or only a few

(Akbarov, 2021; Evanschitzky, Wangenheim, Woisetschläger & Blut, 2008; Fernández-Ferrín et al., 2018; Javalgi, Khare, Gross & Scherer, 2005; Karoui & Khemakhem, 2019; Lee, Chen, Chen, Lo & Hsu, 2020; Siamagka & Balabanis, 2015; Sun, Gonzalez-Jimenez & Wang, 2021; Watson & Wright, 2000). In addition to the CET scale, other known for measuring consumer ethnocentrism is NATID (Keillor & Hult, 1999) and GENE scale (Neuliep & McCroskey, 1997), and more recently the new SCONET scale (Maison, Ardi, Yulianto & Rembulan, 2018).

## 2. COVID 19 virus pandemic effects on consumer ethnocentrism

The COVID 19 virus pandemic has caused many negative consequences for people's lives on a global level. The most visible health consequences of the virus are presence of stress, fear of exploitation, frustration, anxiety and even panic (Mezzina, Sashidharan, Rosen, Killaspy & Saraceno, 2020). Apart from health problems related to the population, the consequences of the pandemic are reflected in the decline of economic activities, the crisis of the global economy, restrictions on movement, the closing of economies, quarantine, the collapse of a large number of companies or bankruptcy for many well-known brands, losing jobs for large number of people, etc. (Donthu & Gustafsson, 2020). These circumstances, along with concern for the personal and health of loved ones, have significantly changed consumer behavior in the market. Sheth (2020) states that COVID 19 virus pandemic resulted in new and modified consumer habits related to work, study, relax or shopping. Similarly, Zwanka & Buff (2021) reported consumer behavioral shifts during a pandemic such as stuck-up mentality, online ordering, work from home, shift to cooking at home, increased focus on environmental stewardship or return to experience and hedonism. Ethnocentric tendencies of consumers were also affected by the pandemic. Starting from the stated fact, the growing interest of the authors in the analysis of the changes in the consumer ethnocentrism during the pandemic is noticeable in the literature. Thus, a study by Verma & Naveen (2021) showed that during the pandemic, consumers avoid foreign products, which has a positive effect on their ethnocentric tendencies, i.e. greater purchases of domestic products. Authors Camacho et al. (2022) examined and confirmed the presence of a negative but insignificant impact of consumer ethnocentrism on

consumer intention to shop online during a pandemic. Related to food preferences, Ben Hassen, El Bilali & Allahyari (2020) observed through their research a significant increase in food consumption of domestic producers during the pandemic due to consumer concerns about food safety. Similar results were obtained in a study by Migliore et al. (2021) which indicates the strengthening of consumer ethnocentric preferences towards domestic food, which they predict will continue after the end of the pandemic. Goddard (2021) reports that during a pandemic there was an increased interest in buying local food due to the temporary shortages in grocery stores of specific items and tendency of consumers to reduce the number of transactions between farm and final consumer. Additionally, Hobbs (2020) indicates that the interest in buying local food will grow at least in the short to medium term post-COVID-19 as the result of the consumers' desire for food security and support for local businesses. Regarding the purchase of wine, Miftari, Cerjak, Tomić-Maksan, Imami & Prenaj (2021) concluded that consumers during the pandemic show stronger preferences for the purchase of domestic wine brands. Similar, Wolf, Wolf & Lecat (2022) concluded that significant attribute consumers observe when buying wine during a pandemic is, among others, that the wine is made by the local producer.

During a pandemic, consumers were prone to stockpile medical and sanitation products. As for many other product categories, the need for product security and the disruption of the supply chains encouraged consumers to buy medical products manufactured by domestic companies. Related to the above mentioned, Mhatre & Singh (2021) in the research concluded that during the pandemic period, consumer interest for the purchase of domestic alternative medicine products in India increased, to which the Indian population otherwise has low preferences. The same result is achieved by Chakraborty, Siddiqui, Siddiqui & Alatawi (2022), with the results of their study showing that consumer concerns about health are influenced by ethnocentrism, which encourages them to buy more domestic alternative medicine products during the pandemic.

One of the most affected sectors by the pandemic is tourism. Due to the fear of getting infected with the virus and restrictions imposed by governments, consumers' preferences for travelling abroad decreased. For example, Vaishar & Štátná (2022) observed that during the

pandemic the occupancy of accommodation in domestic rural tourism destinations in the Czech Republic increased. Further, Kock, Nørfelt, Josiassen, Assaf & Tsonas (2020) concluded that the pandemic has had a positive impact on the level of ethnocentrism among American consumers in terms of strengthening their preferences for tourist destinations in America. Huang, Shao, Zeng, Liu & Li (2021) saw a reduction in the preferences of Chinese consumers to travel far from their country, especially to destinations that have a large number of infected people. Calderón, Esquivel, García & Lozano (2021) concluded that consumers' preferences for domestic tourism in Costa Rica increased due to the higher sense of security in terms of the probability of contagion in domestic destinations.

According to He & Harris (2020), purchase of domestic or foreign products during the COVID 19 pandemic has become an important ethical dilemma. Consequently, it is necessary to research trends in nationalism, animosity and ethnocentrism to see its effects on ethical purchasing decisions by consumers during a pandemic. Similarly, Abdul-Latif & Abdul-Talib (2022) believe that there should be new studies that examine changes in the effects of consumer ethnocentrism on consumer purchasing behavior during a pandemic. Concerning specific product categories, a study by Fernández-Ferrín et al. (2018) showed that the level of consumer ethnocentrism does not have to be the same for different product categories. Additionally, Watson & Wright (2000) indicate that the loyalty of consumers to domestic products cannot be related to all products categories because some products are not produced in domestic industry. In other words, there are certain categories of foreign products that do not have domestic alternatives. Based on the above, the paper will test the following research hypothesis:

H1: The COVID 19 virus pandemic has led to an increase in consumer ethnocentrism.

The creators of the CET scale, Shimp & Sharma (1987), have observed differences in the degree of consumer ethnocentrism based on different demographic and socio-economic characteristics of the consumers. Namely, the authors concluded that older, working-class consumers manifest stronger ethnocentric tendencies. Similarly, Sharma, Shimp & Shin (1995) proved that women are more ethnocentric than men. Also, authors observed negative correlation between consumer

ethnocentrism and education and income; in other words, consumer ethnocentric tendencies decrease with higher educational level and income. Further, Josiassen, Assaf & Karpen (2011) proved that women and older ones are more ethnocentric than man and younger ones, while Hsu & Nien (2008) concluded that ethnocentric consumers are relatively older with lower educational levels. Starting from the previously mentioned research, it is logical to assume that significant differences in ethnocentric tendencies also exist in the observed socio-demographic segments during the pandemic. Hence, Čvirik, Nađová Krošlákova, Milić Beran, Capor Hrosik & Drábik (2022) concluded that women and the elderly have stronger ethnocentric tendencies during the pandemic than men and younger consumers. On the other hand, Wang, Wong & Zhang (2021) observed higher level of consumer ethnocentrism among males than females during the pandemic. In line with previous research, the paper additionally examines the differences in consumer ethnocentrism level during the pandemic for the observed segments of consumers.

### 3. Research methodology

Empirical research in the paper was conducted based on the analysis of primary data collected from 176 respondents of different demographic and socioeconomic characteristics and status of infection with the COVID 19 virus. The survey method, personal interview technique was used to collect primary data. The research is based on the convenience sampling technique. Namely, the questionnaire was distributed to respondents in shopping malls and at university premises at the surveying moment. The surveying was performed during the pandemic period, precisely at the end of 2021 and the beginning of 2022. It is important to emphasize that respondents were surveyed in a single moment about their ethnocentric tendencies before and during the pandemic. The above mentioned is following the approach used by Khan, Ateeq, Ali & Butt (2021) or Youn, Rana & Kopot (2022) to estimate changes in consumer attitudes and behavior under pandemic circumstances. A questionnaire was used for data collection. The first part of the questionnaire includes 10 modified statements taken from the CET scale (Shimp & Sharma, 1987) to measure consumer ethnocentrism before and during the COVID 19 virus pandemic (the same statements: 5 before and 5 during the pandemic). The statements were measured on a seven-point Likert scale (1-absolutely disagree; 7-

absolutely agree). Also, the questionnaire includes statements used to determine the purchase frequency of certain categories of domestic products and services before and during the pandemic, following a survey conducted by Deloitte (2020). In the mentioned group of questions, the respondents expressed the degree of purchase frequency on the seven-point Likert scale, starting from the grade 1 - I never buy, to the grade 7 - I always buy. The last part of the questionnaire refers to the respondent's characteristics. The sample structure is presented in Table.

**Table 1** Sample structure

Criteria		Number	Percent
Gender	Female	96	54.5
	Male	80	45.5
Age	18 to 25	52	29.6
	26 to 45	71	40.3
	46 to 65	34	19.3
	66 and more	19	10.8
Education	High school	74	42
	Higher educ.	48	27.3
	Master	38	21.6
	PhD	16	9.1
Working status	Employed	77	43.8
	Unemployed	30	17
	Student	43	24.4
	Pensioner	26	14.8
Infection with the COVID 19 virus	Been infected	106	60.2
	Been self-isolated	15	8.5
	Not been infected	55	31.3

Source: the authors

If we look at the sample structure by gender, based on the data shown in Table 1 it can be concluded that the sample is dominated by 96 female respondents (54.5%), compared to 80 male respondents (45.5%). The highest percentage of the sample includes respondents aged 26 to 45 years (71 respondents or 40.3%), followed by respondents aged 18 to 25 years (52 respondents or 29.5%), 34 respondents (19.3%) have between 46 and 55 years, while the least number of respondents is 66 or older (19 respondents, i.e. 10.8%). Related to the education, the sample is dominated by 74 respondents with high school education (42%), followed by those with higher education (48 respondents, i.e. 27.3%), then with master's degree (38 respondents, i.e. 21.6%), while 16 respondents (9.1%) have PhD. The largest percentage of the sample consists of employees (77 respondents or 43.8%), followed by students (43 respondents or 24.4%) and unemployed (30 respondents or 17%), while 26 respondents are pensioners (14.8%).

Regarding the infection with the virus, the largest number of respondents have already been infected with the virus (106 respondents or 60.2%), a significantly smaller number have not been infected with the virus (55 respondents or 31.3%), while the smallest number of respondents have been self-isolated (15 respondents, i.e. 8.5%).

SPSS 26 statistical software was used to process the primary data. In this program, first a descriptive analysis was performed to determine the sample structure (frequency analysis). In the following step, factor analysis was conducted to determine the factors composed of statements from the questionnaire. Reliability analysis for extracted factors was performed to determine the internal consistency of the statements that compose them. A paired samples t test was applied to determine statistically significant differences related to the consumer ethnocentrism during the current pandemic and before declaring it. Also, the presence of differences related to the consumer preferences towards different categories of the domestic products and services in the observed periods was analyzed by performing the paired samples t test. The independent samples t test and one-way ANOVA, post hoc Scheffe test, were conducted to examine the differences in consumer ethnocentrism level during the pandemic between socio-demographic segments of consumers

#### 4. Research results and discussion

The first analysis in the paper refers to the factor analysis to determine the factors composed of statements used in research. The results are given in Table 2.

**Table 2** Factor analysis

Variable	Before pandemic (factor loadings)	During pandemic (factor loadings)
It is always best to purchase domestic products.	0.831	0.689
It is not right to purchase foreign products because it hurts the domestic economy and employment.	0.938	0.844
I believe that we should buy only those foreign products that we cannot obtain within our own country.	0.878	0.788
I believe that foreign products should be taxed heavily to reduce their entry into the domestic market.	0.839	0.821

I believe that there should be very little trading or purchasing of products from other countries unless out of necessity.	0.914	0.885
KMO and Bartlett's test	0.833	0.802
% of the total variance explained	77.60	65.33
Cronbach's alpha	0.927	0.866

Source: the authors

Two factor analyses were conducted in the paper, and two factors were extracted. The first analysis refers to 5 statements related to consumer ethnocentrism before the pandemic, while the second one is related to 5 statements used to measure consumer ethnocentrism during the pandemic. According to the results, statements were grouped around one factor in both analyses. The obtained results are logical since statements in both cases measure the same factor, i.e. consumer ethnocentrism. The factor loadings from Table 2 indicate a strong correlation between statements and the factors they belong since all values are above 0.05. The first factor related to consumer ethnocentrism before the pandemic explains 77.60% of the total variance. On the other side, the factor labelled as consumer ethnocentrism during the pandemic explains 65.33% of the total variance. Reliability analysis was performed for both factors. Based on the Cronbach's alpha coefficient values in Table 2, it can be concluded that both factors show an adequate reliability level since the value of the Cronbach's alpha coefficient for both factors is higher than 0,7 (Nunnally, 1978). Consumer ethnocentrism factor had a higher degree of reliability before the pandemic due to the higher value of the Cronbach's alpha coefficient. The reliability analysis results are in line with factor analysis results since statements grouped around extracted factors have an adequate level of internal consistency.

A paired samples t test was applied to determine the changes in the degree of consumer ethnocentrism in the observed periods. The results of the analysis are shown in Table 3.

**Table 3** Paired samples t test

Variable (statements)	Before pandemic	During pandemic	p value
	Mean	Mean	
<b>Consumer ethnocentrism</b>	<b>4.25</b>	<b>4.53</b>	<b>0.000</b>
It is always best to purchase domestic products (before/during the pandemic).	4.47	5.00	0.000

It is not right to purchase foreign products because it hurts the domestic economy and employment (before/during the pandemic).	4.16	4.46	0.005
I believe that (before/during the pandemic) we should buy only those foreign products that we cannot obtain within our own country.	4.23	4.26	0.813
I believe that (before/during the pandemic) foreign products should be taxed heavily to reduce their entry into the domestic market.	4.13	4.28	0.068
I believe that (before/during the pandemic) there should be very little trading or purchasing of products from other countries unless out of necessity.	4.25	4.66	0.000

Source: the authors

Table 3 shows the values of the arithmetic mean for the variable consumer ethnocentrism in the observed periods which show a stronger level of consumer ethnocentrism during than in the period before the pandemic. The results confirm a p value lower than 0.1 and a higher value of the arithmetic mean for a given variable in this period. When comparing the statements for measuring ethnocentrism, the results are similar to those for variables. Based on the p value, statistically significant differences in the observed periods occur when it comes to consumer attitudes that it is best to purchase domestic products, that it is not right to purchase foreign products because it hurts the domestic economy and employment, that foreign products should be taxed heavily to reduce their entry into the domestic market and that trading and purchasing foreign products should be very little unless out of necessity. Regarding the strength of the stated attitudes, consumers expressed them more strongly during the pandemic, which confirm higher values of arithmetic means for these statements in the given period. On the other hand, a statistically significant difference was not identified when observing the attitude of consumers that they should buy only

those foreign products that cannot be obtained in our own country, given that the difference in the strength of this attitude in the observed periods is insignificant. Based on the obtained results, it is concluded that hypothesis H1 related to the strengthening of consumer ethnocentrism during the pandemic has been proven.

A paired samples t test was also conducted to determine consumer preferences for the observed domestic products and services before and during the pandemic. The results of the analysis are shown in Table 4.

**Table 4** Paired samples t test

Products and services	Before pandemic	During pandemic	p value
	Mean	Mean	
Beauty and care	4.09	4.10	0.948
Drugs/medicine	4.46	4.62	0.083
Fashion	4.10	3.87	0.003
Travel	3.82	3.71	0.379
Insurance	3.44	3.28	0.065

Source: the authors

Based on the results from Table 4, the presence of statistically significant differences in terms of selection and purchase of three categories of domestic products and services in the observed periods can be noticed: medical products (drugs/medicine), fashion and insurance. In particular, when looking at the domestic medical products, consumers use them more during the pandemic than before. As for fashion, consumers preferred to buy domestic brands before the pandemic. Finally, regarding the use of domestic companies insurance services, consumers used them more before the pandemic. When observing the remaining domestic products and services, the differences related to their use in the period before compared to the period during the pandemic were not identified.

In the next step, the independent samples t test was conducted to determine the differences in consumer ethnocentrism level between women and men during the pandemic. The results of the analysis are presented in Table 5.

**Table 5** Independent samples t test

Statements	During pandemic		p value
	Women	Men	
	Mean	Mean	
It is always best to purchase domestic products.	5.09	4.90	0.465
It is not right to purchase foreign products because it hurts the domestic economy and employment.	4.34	4.61	0.354

I believe that we should buy only those foreign products that we cannot obtain within our own country.	3.98	4.60	0.037
I believe that foreign products should be taxed heavily to reduce their entry into the domestic market.	3.96	4.67	0.011
I believe that there should be very little trading or purchasing of products from other countries unless out of necessity.	4.45	4.91	0.114

Source: the authors

According to the results from Table 5, statistically significant differences in attitudes between women and men exist for two out of five statements used to measure consumer ethnocentrism during the pandemic. More precisely, men stronger believe that consumers should buy only those foreign products that cannot be obtained within own country, and that foreign products should be taxed heavily to reduce their entry into the domestic market. For other statements, the attitudes of women and men are similar. Generally, obtained results indicate that women and men mostly show similar ethnocentric tendencies during the pandemic.

The following analysis refers to the differences in ethnocentrism level for consumers who belong to different segments based on age (Table 6).

**Table 6** Anova, post hoc Scheffe test

Statements	Differences in segments during the pandemic		p value
	Segments	Mean	
It is always best to purchase domestic products.	S2 - S3	4.46 - 5.85	0.002
	S2 - S4	4.46 - 5.63	0.066
It is not right to purchase foreign products because it hurts the domestic economy and employment.	S1 - S3	4.21 - 5.76	0.001
	S1 - S4	4.21 - 5.79	0.009
	S2 - S3	3.68 - 5.76	0.000
	S2 - S4	3.68 - 5.79	0.000
I believe that we should buy only those foreign products that we cannot obtain within our own country.	S1 - S3	3.79 - 6.00	0.000
	S2 - S3	3.63 - 6.00	0.000
	S2 - S4	3.63 - 4.79	0.096
I believe that foreign products should be taxed heavily to reduce their entry into the domestic market.	S1 - S3	4.08 - 5.18	0.050
	S1 - S4	4.08 - 5.37	0.062
	S2 - S3	3.72 - 5.18	0.002
	S2 - S4	3.72 - 5.37	0.005

I believe that there should be very little trading or purchasing of products from other countries unless out of necessity.	S1 - S3	4.48 - 5.82	0.010
	S1 - S4	4.48 - 5.79	0.062
	S2 - S3	3.93 - 5.82	0.000
	S2 - S4	3.93 - 5.79	0.001

S1 – 18 to 25; S2 – 26 to 45; S3 – 46 to 65; S4 - 66 and more  
**Source:** the authors

Results from Table 6 indicate that consumers of different ages mostly had different ethnocentric tendencies during the pandemic. More precisely, differences in attitudes of younger and older consumers exist for all statements used to measure ethnocentric tendencies during the pandemic. According to the results, consumers who are between 46 to 65 years old and those who are 66 or older, stronger agree with all observed statements related to ethnocentric tendencies compared to consumers who have between 18 to 25 or 26 to 45 years. Generally, it can be concluded that older consumers exhibit a stronger degree of consumer ethnocentrism during the pandemic.

The final analysis was performed to determine if there are differences in ethnocentrism level between consumers with different working status (Table 7).

**Table 7** Anova, post hoc Scheffe test

Statements	Differences in segments during the pandemic		p value
	Segments	Mean	
It is always best to purchase domestic products.	-	-	0.439
It is not right to purchase foreign products because it hurts the domestic economy and employment.	S3 - S4	3.84 - 5.20	0.006
I believe that we should buy only those foreign products that we cannot obtain within our own country.	-	-	0.177
I believe that foreign products should be taxed heavily to reduce their entry into the domestic market.	S1 - S4	4.13 - 5.31	0.048
	S3 - S4	3.98 - 5.31	0.039
I believe that there should be very little trading or purchasing of products from other countries unless out of necessity.	S3 - S4	4.23 - 5.61	0.039

S1 – employed; S2 – unemployed; S3 – student; S4 – pensioner  
**Source:** the authors

Based on the result from Table 7, statistically significant differences in attitudes of consumers with different working status exist for three out of five statements related to ethnocentric tendencies during the pandemic. Compared to employed respondents or students, pensioners agree more strongly that it is not right to purchase foreign products during the pandemic because it hurts the domestic economy and employment, that foreign products should be taxed heavily to reduce their entry into the domestic market, and that there should be very little trading or purchasing of products from other countries during the pandemic, unless out of necessity. According to the results, it can be concluded that consumers with different working status show different ethnocentric tendencies during the pandemic.

### Conclusion

The proclamation of the COVID 19 virus pandemic has changed the daily lives of people around the world in just a few months. Since the virus has been present among people for a long time, changes are evident in many aspects of consumption, including consumer ethnocentrism. To identify such changes, an empirical study was conducted based on a comparison of the degree of consumer ethnocentrism during the pandemic with the period before its proclamation. Also, the research aims to identify differences in the purchase of certain domestic products and services in the observed periods. Finally, the paper deals with differences in ethnocentric tendencies during the pandemic between different socio-demographic consumer segments. Following the obtained results, it is first possible to notice that the level of consumer ethnocentrism differs. In other words, consumer ethnocentrism is higher during the pandemic. The obtained result is in line with the assumptions and results of previous research showing that ethnocentric tendencies are much higher during a pandemic (Ben Hassen et al., 2020; Kock et al., 2020; Migliore et al., 2021; Miftari et al., 2021; Mhatre & Singh, 2021; Verma & Naveen, 2021; Chakraborty et al., 2022). The results related to purchasing different domestic products and services gave somewhat different conclusions. Namely, in two of the five observed categories, there is no difference in purchasing the same before and during the pandemic. Differences occur when buying medical products, fashion and insurance services. When it comes to domestic medical products, consumers buy them more during the pandemic, while the situation is reversed

for fashion and insurance. The result related to higher purchases of domestic medical products is in line with the general result of the research, which indicates the strengthening of consumer ethnocentrism during the pandemic. This result is also supported by the fact that during the pandemic, consumers bought more medical products, primarily from domestic pharmaceutical companies. Also, during the pandemic, the Government often emphasized and praised the work, commitment and sacrifice of medical workers, which additionally influenced the strengthening of consumer confidence in domestic medicine in general. The result is consistent with a study conducted by Mhatre & Singh (2021) and Chakraborty et al. (2022). The result for the beauty and care products can be explained by the fact that consumers are most loyal to cosmetic brands they use regardless of their origin. Also, this is the category of products where consumers are not too sensitive to changes in ethnocentric tendencies. Regarding fashion, the obtained result is not in line with the general results related to the strengthening consumer ethnocentrism during the pandemic. However, the result can be explained similarly as for the previous product category. In other words, consumers are most loyal to the brands they wear. Also, during the pandemic, a certain number of foreign brands entered the market, which may also be the cause of the decline in consumer interest in domestic fashion brands. When looking at travel, differences are not identified. The obtained result can be a consequence of consumer desire to travel to foreign destinations after quarantine and closure of countries globally, on the one hand, but also fear of viruses and government incentives in the form of vouchers for visiting domestic destinations on the other hand. The obtained result is opposite to the results of other studies (Kock et al., 2020; Huang et al., 2021; Calderón et al., 2021). As for insurance, it was observed that the services of domestic insurance companies were used more before the pandemic, which contradicts the general result of the research. However, the result can be explained by the fact that fear of the pandemic has affected consumers to use foreign companies' insurance services more due to their better reputation, which encourages a higher degree of trust in the services quality provided by these companies. Generally, the results of the study for product categories are in line with the results of research conducted by Fernández-Ferrín et al. (2018), which indicate that changes in the degree of consumer ethnocentrism depend on the product

category. Accordingly, strengthening ethnocentric tendencies during a pandemic cannot be generalized for all product categories.

Additional analysis related to differences in ethnocentric tendencies for different socio-demographic consumer segments gave interesting results. In general, results show that differences mostly exist when observing ethnocentric tendencies of different consumer segments during the pandemic. First, the results indicate that older consumers exhibit a stronger degree of consumer ethnocentrism during the pandemic compared to younger ones, which is in line with previous studies (Čvirik et al., 2022). In addition to this is the result that pensioners show stronger ethnocentric tendencies during the pandemic compared to employed ones and students. On the other hand, the results indicate that women and men exhibit similar degree of consumer ethnocentrism during the pandemic, which is contrary to previous studies (Čvirik et al., 2022; Wang et al., 2021), but this result can be explained by the fact that research was conducted in different geographical areas and time periods.

The results of the conducted empirical research go beyond the observed gap in the domestic literature, which, according to the authors, lacks studies comparing the degree of consumer ethnocentrism during and before the pandemic. In this way, the current knowledge about the effects of the pandemic on consumer behavior is expanding. The methodological framework of the research can serve as a starting point for future studies based on larger samples related to consumer ethnocentrism today. Also, there is significant knowledge related to the consumer's ethnocentric tendencies regarding the purchase of different domestic products and services. Finally, the paper provides useful knowledge about relations between socio-demographic characteristics of consumers and ethnocentric tendencies during the pandemic. From a managerial perspective, domestic producers can work further to strengthen consumer ethnocentrism on the market. Precisely, they should take into account the identified pandemic effect by providing consumers with safe shopping conditions and safe and high-quality domestic products for use during and after pandemic. In this way, domestic companies would instill a higher degree of trust in consumers when buying domestic products due to the provision of adequate purchasing conditions to protect consumers from the virus. The above mentioned is especially

important for mature consumers and pensioners who exhibit stronger ethnocentric tendencies during the pandemic. In this regard, it is necessary to emphasize the previously mentioned advantages of buying domestic products during the pandemic (safe shopping and products). Also, it is necessary to ensure appropriate sanitary conditions during production and sale of products to consumers (compliance with sanitary regulations and standards, wearing masks, maintaining social distance, regular quality control of raw materials, adequate product packaging, etc.). In addition to producers, the generated knowledge can be used by the Government and the relevant ministry to identify those product categories where consumers manifest a high level of consumer ethnocentrism or categories where it makes sense to encourage the campaign “Buy local!”.

After the contribution, it is important to point out the limitations of the work. First, only a few of the 17 statements within the CET scale were used to measure consumer ethnocentrism. The research sample is not fully representative in terms of size and territorial distribution, which is why the results cannot be generalized for the entire population and must be interpreted with reservations. Also, the study did not cover all categories of products and services that consumers buy and use. It is important to emphasize that the author’s intention was not to include those categories of products in which the domestic economy is competitive, such as agricultural products, but to focus on categories where foreign brands are more dominant. Accordingly, the identified degree of consumer ethnocentrism for given product categories shows whether and where there is a basis for encouraging the campaign “Buy local!”. In line with the observed limitations, the first recommendation is to expand the sample to generate more accurate results. Also, it is desirable to fully apply the CET scale for measuring consumer ethnocentrism. Regarding the categories of products and services, it is desirable to expand their number to analyze consumer attitudes more comprehensively. Also, it is desirable to break down the categories into several subcategories (for example, different food products, household appliances, beauty and care products, etc.). Recommendation for future studies also refers to the possibility of including some of the determinants of consumer ethnocentrism (patriotism, animosity, cultural openness) to generate more accurate results on its effects on consumer preferences during a pandemic.

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