

# PERCEIVED PRICE AND QUALITY OF FOOD OF EUROPEAN UNION COUNTRIES OF ORIGIN BY YOUNG SLOVAKS: THE INFLUENCE OF ETHNOCENTRIC TENDENCIES

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## Abstract

Perceived price and perceived quality are two generic factors influencing purchasing decisions. Their importance is also connected with the effect of the country of origin. The main aim of the article is to examine the perception of price and quality in the context of individual countries of origin of the European Union and influence of the consumer ethnocentrism on this perception. From the point of view of methodology, we use general philosophical-scientific methods (analysis, synthesis, scientific abstraction etc.) and, to a large extent, also methods of descriptive and inductive statistics. Specifically, we use correlation analysis to examine the direction and intensity of relationships, cluster analysis to examine the similarities of individual countries of the European Union in terms of perceived price and quality, as well as a one-way ANOVA test to verify hypotheses. Scale tools for measuring perceived quality, perceived price, and the degree of consumer ethnocentrism achieve a high degree of estimation of validity and reliability (estimated using McDonald's omega and Cronbach's alpha). The results indicate differences in the perception of price and quality of individual countries of origin of food. It can be assumed that the level of consumer ethnocentrism is below average in the conditions of Slovakia, and it has an impact on food evaluation only in the home country. The results can be used both for marketing and in the conditions of international trade, tourism, and in many other fields of theory and praxis.

**Implications for Central European audience:** Knowledge of the perception of price and quality of individual countries is important for international trade and marketing. Knowledge of the perception of these two factors helps to create strategies for both domestic and foreign companies operating in Slovakia. In this article, we examine the perception of all countries in the European Union, which allows for comparison. Foods from certain countries perceived better quality and cheaper will be more in demand. Demonstrating the effectiveness of consumer ethnocentrism has an impact on the development of strategies by domestic companies and the government to create support for the purchase of domestic production.

**Keywords:** consumer ethnocentrism; country of origin; European union; perceived price and quality.

**JEL Classification:** M31, D12, C20

# Introduction

The issue of international marketing in the context of the country of origin and the country of production of food products is marked by globalization, ethnocentrism, cosmopolitanism, patriotism, food crises, food scandals, stereotypes, and trends in nutrition and lifestyle.

These and many other factors affect consumer perceptions and attitudes in the context of the country of origin. The perceived price and the perceived quality of the country's production have a key influence on the decision-making on preferences.

In the semantic analysis of the country of origin, it is necessary to understand the meaning of individual parts and thus the country and origin. In examining the literature, we concluded that different authors interpret the components differently. In our work, we will understand the country as a state. The term origin is most often understood as the place where a particular product was created. However, the impact of globalization has significantly changed this characteristic. This static view must become more flexible as products created in several countries appear more and more often. These products can be described as hybrid (Ettenson & Gaeth, 1991). The revolution was brought about by Samiee (1994), who proposed to distinguish between a two-stage concept: 1. the country of origin (the country with which the product is associated) and 2. the country of production (the country where the product was produced). It is therefore logical when examining the countries of origin that it is necessary to define the country and the product/product category/products of the series.

In general, price and quality are the main decision variables in consumer behaviour. We must realize that price and quality have two generic categories, subjective and objective. An objective view is a certain quantitative expression which, in the case of price, is characteristic for economic sciences such as finance, and in terms of quality it is, for example, a commodity-understanding of quality. The subjective view focuses on consumer perception. In our work, we will focus on subjective understanding. Each individual will imagine other factors under the price acceptability on which basis he will evaluate this variable. The same is true for quality. Our goal is not to find the factors that determine this evaluation but to quantify the subjective evaluation as such.

Perceived (subjective) price and quality cannot be completely generalized, as it represents a set of external as well as internal evaluation factors. Internal factors represent, for example, an empire that is different for each individual, and they also inform. Many authors point out a link between perceived price and perceived quality, with most considering a positive relationship.

## 1 Literature review

There are various definitions of the country of origin effect in foreign literature. Wang and Lamb (1983) characterize the country of origin effect as "an obscure, intangible barrier to foreign market entry". This is a characteristic of the international trade environment. This barrier to entry into the foreign market is a negative factor, but it has a positive effect on domestic production. The country of origin thus represents an important source of information (Verlegh & Steenkamp, 1999), which can serve as a deciding factor when buying (Kovak & Gumusluoglu, 2007).

Characteristics understanding the country of origin's effect on consumer behaviour agree that this effect can be seen as a "product" of the country of origin. The country of origin examines the coexistence between the image of the product (brand) and the image of the territory that we associate a connection with it. It can therefore be stated that the effect of the country of origin is based on the evaluation of the products and the country concerned. Based on this relationship, the country of origin effect is created. The effect can be positive, negative, neutral, or ambivalent. Positive in the sense that the country of origin has a positive effect on the consumer, which means that he is interested in the product. The negative impact can be described as the opposite. Some countries do not create any impulses in the minds of consumers due to certain product categories. The country of origin effect can be described as neutral. Juric and Worsley (1998) concluded that the effect may be ambivalent (positive on the one hand but negative on the other hand).

According to Bryła (2021), very few experts deal with food in the context of the country of origin, and this area deserves high attention. High attention also stems from various scandals in the context of double food quality, i.e. the concept of different food qualities in different countries. The concept of country of origin is highly subjective in nature, as its effect results from the subjective perception of the country of the individual. This perception is multidimensional, and it is difficult to capture all the factors. The result is a perception of subjective price and quality in association with individual countries. From the point of view of consumer behaviour, price is understood as a certain amount of money that the consumer must spend to obtain a certain product. Quality also means the company's ability to satisfy customer requirements. It should be noted that quality has two categories, objective (can be measured) and subjective (can be understood as quality perceived by customers). In general, the higher the perceived quality of a product, the easier it is to sell. Quality in the context of the country of origin is associated with certain product quality attributes (specific characteristics) or production processes (Boyazoglu, 1999; Cañada & Muchnik, 2011), creating a specific concept also called Protected Designation of Origin (Erraach et al., 2014). Koschate-Fischer et al. (2012) state that differences in product evaluation can be significant for the country of origin of the product.

The price represents an impulse for customers that testifies to the quality of the product and the numerical amount sacrificed to obtain it. Perceived price and perceived quality are evaluated in the minds of consumers based on many factors (Szybillo & Jacoby, 1974). It can also be stated that price and quality not only help in deciding to buy or not the product, but they are fundamental attributes of the perceived value (Sawyer & Dickson, 1984). Several authors suggest (Monroe & Chapman, 1987; Zeithaml, 1988; Lichtenstein & Bearden, 1989) that the perceived price and quality, or rather the appearance of the perceived price and quality, is one of the basic attributes of perceived value as well as purchasing intent.

## **1.1 Country of origin and the effect of consumer ethnocentrism**

The effect of consumer ethnocentrism also has a significant effect on the perception of the country of origin. According to Kotabe and Helsen (2010), one of the effects on countries of origin is the effect of ethnocentrism in that country. Shimp and Sharma (1987) define consumer ethnocentrism as follows: "the beliefs held by American consumers about the appropriateness, indeed morality, of purchasing foreign-made products. From the perspective of ethnocentric consumers, purchasing imported products is wrong because, in

their minds, it hurts the domestic economy, causes loss of jobs, and is unpatriotic; products from other countries (i.e., out-groups) are objects of contempt to highly ethnocentric consumers. In terms of functionality, consumer ethnocentrism gives an individual a sense of identity, a sense of belonging, and an understanding of what buying behaviour is acceptable or unacceptable to in-group.” The authors also developed the first universal tool for measuring consumer ethnocentrism, referred to as CETSCALE (The Consumer Ethnocentrism Tendencies Scale) (Shimp & Sharma, 1987).

The connection between the concepts of the country of origin and consumer ethnocentrism is shown by several studies (Balabanis & Diamantopoulos, 2004; Khan, 2012; Zolfagharian et al., 2014).

Scientific and professional studies dealing with the links between consumer ethnocentrism and the country of origin draw various conclusions (Kaynak & Kara, 2002). Chrysoschoidis et al. (2007) point out a strong link between the country of origin and consumer ethnocentrism. Kaynak et al. (1994) examined the ratings of 24 airlines by US consumers. The authors note that there are significant differences between consumers using domestic airlines and consumers using domestic and foreign airlines. Examining the ratings of foreign airlines in Qatar, Al-Sulaiti and Baker concluded that foreign airlines were more attractive to consumers than domestic ones but that consumers preferred domestic airlines (Al-Sulaiti & Baker, 1998).

A study by Watson and Wright (2000) found that New Zealand consumers found that, unless the imported products had domestic equivalents, the main evaluation element of the products was similarity in the culture and politics of the country of origin. However, if there was a domestic equivalent of the imported product on the market, consumers preferred it even if it was more expensive or of lower quality.

The study by Supphellen and Rittenburg (2001) suggests different results. Based on research by Polish consumers, the authors conclude that if foreign products have better and cheaper characteristics, ethnocentric consumers will (involuntarily) adapt to consumers who do not believe in ethnocentrism and will start to prefer imported products.

Balabanis and Diamantopoulos (2004) found that the country of origin (in terms of culture and level of economic competitiveness) is not related to the preference or rejection of foreign products. They also add that consumer ethnocentrism affects the preferences of domestic products and as a negative factor in the preferences of foreign products only in rare cases acts.

John (2007) linked species selection theory and ethnic protectionism with genetic similarity. Experiments have shown that in a situation where there is no domestic equivalent, the ethnocentric consumer tends to turn to a product that comes from a country whose culture is closest to his own.

Bryła (2021) specializes in the food segment, points to the high importance of the country of origin in the context of consumer behaviour, as well as the importance of labelling food by the country of origin as a significant factor in food purchasing decisions.

## 2 Methodology

The present study has several aims. The aims can be formulated as follows: 1. Examination of the perceived level of food price and quality in selected countries of origin (European Union countries), 2. Identifying the relationship between food price and quality in selected countries of origin (European Union countries), 3. Characterize possible groups of countries of origin of food based on perceived price and quality, 4. Measuring the effect of consumer ethnocentrism tendencies, and 5. Examination of the relationship between the perceived price and quality of individual countries of origin and the degree of consumer ethnocentrism.

In the context of the literature review and goals, we formulated the following research questions and hypotheses:

RQ1: How can the perceived quality of food in selected countries of origin be characterized?

RQ2: How can the perceived price of food in selected countries of origin be characterized?

RQ3: How can the relationship between food price and quality in selected countries of origin be characterized?

H1: There is a relationship between the perceived price and the perceived quality of food in selected countries of origin.

RQ4: What segments (groups) of countries are created based on perceived quality?

RQ5: What segments (groups) of countries are created based on perceived price?

RQ4: What is the level of consumer ethnocentrism?

H2: Is there a relationship between the degree of consumer ethnocentrism and the perceived quality of individual EU countries.

H3: Is there a relationship between the degree of consumer ethnocentrism and the perceived price of individual EU countries.

### **Generic characteristics of the methods used**

In our work, we use descriptive statistics (average, standard deviation and others) to a large extent. At the same time, we use elements of inductive statistics while we use a one-way ANOVA test to verify hypotheses. We use the one-way ANOVA test as we compare several groups on the basis of one factor. Like every test, ANOVA has its null hypothesis and alternative, while their acceptance, resp. we consider rejection based on the p-value. The ANOVA test also has F-statistics that can help with decision-making. We also use correlation in the article. Correlation determines the dependence of certain variables on the basis of the correlation coefficient, which ultimately expresses the direction and intensity of their relationship. In the case of two objects expressed in cardinal data, we can use the calculation for Pearson's pairwise correlation coefficient. In the case of ordinal scales, the calculation for the Spearman correlation coefficient can be used. Since we use ordinal variables in this work, we will use the Spearman correlation coefficient (also referred to as the Spearman's rho). We will use the recommendations from De Vaus (2002) to interpret the coefficients. In this work, we also calculate the confidence intervals of correlation coefficients, which are suitable for generalization to the population.

## Sample

The basic population was defined as "consumers of Slovak nationality aged 15 to 26". Focusing on national characteristics was crucial in terms of measuring consumer ethnocentrism as well as consistently examining the perceptions of other states. The age limits are due to the fact that it can be assumed that consumers over the age of 15 already have consumer habits, apply consumer decisions and have a generic overview of countries in the European Union.

At the same time, it can be stated that the National Report on Youth Policy in the Slovak Republic for the Council of Europe favours the definition used for standard UN and UNESCO statistical surveys, in which youth is defined as a functional age group from 15 to 26 years. (Ministry of Education of the Slovak Republic, 2005).

278 respondents became the basis for the primary survey. According to the Statistical Office of the Slovak Republic, it can be stated that the population represents approximately 655,757 (data as of 31 December 2021) consumers (SOSR, 2022). For a sample of 278 respondents, the maximum statistical error (with a 95 % confidence probability) is around 6 %. The sample has the character of a comfortable sample. The sample included 33.5 % men and 66.5 % women. In terms of social status, 92.1 % of respondents stated that they were students, 7.5 % of respondents stated that they were employed, and 0.4 % of respondents were on maternity leave.

## Perception of price and quality

The survey of the perceived price and quality of food in individual countries of the European Union was carried out based on a scale tool in which respondents evaluated the perceived price and perceived quality of individual countries of the European Union on a seven-point scale. At a price, the scale was characterized as 1 - very low price, 7 - very high and in terms of quality, it was 1 - very bad, 7 - excellent. Respondents were asked about the evaluation of the 27 member states of the European Union in terms of quality and price. As this is a newly created tool, it was necessary to verify its reliability. It is appropriate to use reliability estimation coefficients to estimate reliability. As the individual coefficients have certain advantages and limits, we chose two – McDonald's  $\omega$  and Cronbach's  $\alpha$ . For both coefficients, a minimum acceptable value higher than 0.700 is recommended, and the value should not exceed 0.950. An acceptable level of reliability estimation can be stated at the perceived quality tool (McDonald's  $\omega = 0.896$  (CI 95 % = <0.878 - 0.913>); Cronbach's  $\alpha = 0.891$  (CI 95 % = <0.872 - 0.907>) and reliability estimate for perceived price tool (McDonald's  $\omega = 0.757$  (CI 95 % = <0.716 - 0.797>); Cronbach's  $\alpha = 0.757$  (CI 95 % = <0.717 - 0.793>). Scale tools behave as one It should be noted that the analysis of internal consistency and internal correlation between countries revealed strong fluctuations, so in further data analyses and evaluations, we will work with individual countries and not with perceptions, in the sense of the whole.

## Consumer ethnocentrism

Consumer ethnocentrism was measured at CETSCALE (Shimp and Sharma, 1987), which contains 17 statements with respondents responding to individual statements on a five-point Likert scale (1 disagree at all, 5 strongly agree). As this is a foreign instrument, it is necessary to verify its reliability. It is appropriate to use reliability estimation coefficients to estimate

reliability. As the individual coefficients have certain advantages and limits, we chose two coefficients – McDonald's  $\omega$  and Cronbach's  $\alpha$ . From the point of view of reliability, however, it is necessary to examine not only the overall tool but also individual statements, using the "if item dropped" method. The results of the reliability estimate of both selected coefficients, as well as the basic indicators of descriptive statistics (mean and standard deviation), were recorded in Table 1.

**Table 1 | CETSCALE descriptive statistics and reliability estimates**

<b>CETSCALE items*</b>	<b>Mean</b>	<b>St. dev.</b>	<b>McDonald's <math>\omega</math> **</b>	<b>Cronbach's <math>\alpha</math> ***</b>
1. Slovak people should always buy Slovak-made products instead of imports.	3.48	1.21	0.899	0.897
2. Only those products that are unavailable in the Slovak Republic should be imported.	3.30	1.27	0.900	0.899
3. Buy Slovak-made products, keep the Slovak Republic working.	4.12	0.86	0.905	0.904
4. Slovak products, first, last, and foremost.	3.44	1.08	0.902	0.901
5. Purchasing foreign-made products is un-Slovakian.	1.83	0.92	0.901	0.899
6. It is not right to purchase foreign products because it puts Slovaks out of jobs.	2.29	1.06	0.898	0.897
7. A real Slovak should always buy Slovak - made products.	2.00	1.01	0.898	0.896
8. We should purchase products manufactured in the Slovak Republic instead of letting other countries get rich off us.	3.40	1.18	0.896	0.895
9. It is always best to purchase Slovaks products.	3.27	1.04	0.900	0.898
10. There should be very little trading or purchasing of goods from other countries unless out of necessity.	2.94	1.10	0.896	0.895
11. Slovaks should not buy foreign products because this hurts Slovak business and causes unemployment.	2.56	1.05	0.899	0.897
12. Curbs should be put on all imports.	2.53	1.15	0.899	0.897
13. It may cost me in the long run, but I prefer to support Slovak products.	3.37	1.09	0.902	0.901
14. Foreigners should not be allowed to put their products on our markets.	1.65	0.77	0.901	0.899
15. Foreign products should be taxed heavily to reduce their entry into the Slovak Republic.	2.11	0.99	0.901	0.899
16. We should buy from foreign countries only those products that we cannot obtain within our own country.	2.91	1.24	0.898	0.897
17. Slovak consumers who purchase products made in other countries are responsible for putting their fellow Slovaks out of work.	2.16	1.00	0.899	0.897

Notes: \* Adapted from Shimp and Sharma (1987).

\*\* Total McDonald's  $\omega$  for tool = 0.905 (CI 95 % = <0.889 - 0.921>).

\*\*\* Total Cronbach's  $\alpha$  \*\* for tool = 0.904 (CI 95 % = <0.886 - 0.919>).

Source: Own calculations

Table 1 shows the high level of reliability estimation. At the same time, it can be stated that it is not necessary to exclude any statement to obtain a higher estimate of reliability. We will therefore continue to use the tool (CETSCALE) as a whole, a tool for assessing the degree of consumer ethnocentrism.

### 3 Results

In the next part of the article, we focus on answering research questions and verifying hypotheses, which will help achieve aims.

*RQ1: How can the perceived quality and price of food in selected countries of origin be characterized?*

Respondents rated the price and quality of food based on association with individual countries of the European Union on a seven-point scale. The mean value of the scale is at the level of 4 points. In simplicity, it can be stated that a higher value in quality meant higher quality, and a higher value in price meant a higher price. First, we examined whether there were significant differences in the evaluation of individual countries. We chose ANOVA (one-way ANOVA test) for testing. The results suggest that there are significant differences between at least the two countries both in terms of perceived quality ( $\alpha = 0.05$ ; p-value = 0.001; df = 26; F-value = 97.708; F-crit. = 1.497) and in terms of perceived price ( $\alpha = 0.05$ ; p-value = 0.001; df = 26; F-value = 109.003; F-crit. = 1.497). We recorded the mean value for individual countries as well as the standard deviation in Table 2.

**Table 2 | Basic descriptive parameters of perceived price and quality for individual countries**

Country	Perceived quality*		Perceived price**	
	Mean	St. dev.	Mean	St. dev.
Austria	5.85	0.97	4.88	0.94
Belgium	5.22	1.12	4.77	0.95
Bulgaria	4.03	0.70	3.45	0.89
Croatia	4.67	0.89	3.77	0.76
Cyprus	4.15	0.53	4.03	0.47
Czech Republic	5.04	0.90	3.90	0.70
Denmark	4.79	1.09	4.75	0.96
Estonia	4.20	0.61	4.09	0.56
Finland	4.76	1.04	4.71	0.96
France	5.29	1.13	4.91	0.93
Germany	5.60	1.13	4.92	0.99
Greece	4.98	1.07	4.04	0.76
Hungary	4.59	1.07	3.61	0.80
Ireland	4.51	0.97	4.37	0.70
Italy	5.44	1.13	4.48	0.87
Latvia	4.13	0.57	3.96	0.51
Lithuania	4.17	0.58	3.96	0.46
Luxembourg	4.59	1.05	4.65	1.02
Malta	4.13	0.55	4.01	0.50
Netherlands	4.85	1.09	4.59	0.76
Poland	3.97	1.11	3.07	0.78
Portugal	4.34	0.74	4.09	0.50
Romania	3.88	0.59	3.57	0.70
Slovakia	5.61	0.93	4.28	0.92
Slovenia	4.29	0.76	3.92	0.51
Spain	4.72	0.92	4.20	0.63
Sweden	4.78	1.12	4.65	0.95

Notes: \* 1 - very low price, 7 - very high price. \*\* 1 - very poor quality, 7 - excellent quality.

Source: own calculations.

As Table 2 shows, the best-perceived food is from Austria, and the lowest is from Romania. Food from Germany is considered the most expensive, and food from Poland is considered the cheapest.

*RQ2: How can the relationship between food price and quality in selected countries of origin be characterized?*

*H1: There is a relationship between the perceived price and the perceived quality of food in selected countries of origin.*

The relationship between price and quality has strong support in the literature. We, therefore, focused on examining the relationship in real terms. Given the nature of the ordinal data, we used a Spearman correlation coefficient (we also verified its significance) to examine the relationship between the perceived price and the perceived quality of food, and we used a recalculation of the confidence interval to improve generalizability. We recorded the results in Table 3.

**Table 3 | Relationship between perceived price and perceived quality**

Country	Correlation Coefficient	Sig.	Confidence interval		df	N
			LCL	UCL		
Austria	0.309	<0.001**	0.199	0.412	275	278
Belgium	0.555	<0.001**	0.468	0.631	275	278
Bulgaria	0.076	0.206*	-	-	-	278
Croatia	-0.054	0.370*	-	-	-	278
Cyprus	0.102	0.090*	-	-	-	278
Czech Republic	-0.002	0.976*	-	-	-	278
Denmark	0.565	<0.001**	0.479	0.640	275	278
Estonia	0.368	<0.001**	0.262	0.465	275	278
Finland	0.635	<0.001**	0.559	0.700	275	278
France	0.539	<0.001**	0.450	0.617	275	278
Germany	0.417	<0.001**	0.315	0.510	275	278
Greece	0.196	0.001**	0.080	0.307	275	278
Hungary	-0.034	0.571*	-	-	-	278
Ireland	0.365	<0.001**	0.258	0.463	275	278
Italy	0.517	<0.001**	0.425	0.598	275	278
Latvia	0.048	0.427*	-	-	-	278
Lithuania	-0.146	0.015*	-0.029	-0.259	275	278
Luxembourg	0.623	<0.001**	0.545	0.690	275	278
Malta	0.05	0.409*	-	-	-	278
Netherlands	0.561	<0.001**	0.475	0.637	275	278
Poland	0.267	<0.001**	0.154	0.373	275	278
Portugal	0.413	<0.001**	0.310	0.506	275	278
Romania	0.251	<0.001**	0.137	0.358	275	278
Slovakia	0.18	0.003**	0.064	0.291	275	278
Slovenia	0.169	0.005**	0.052	0.281	275	278
Spain	0.364	<0.001**	0.257	0.462	275	278
Sweden	0.663	<0.001**	0.591	0.724	275	278

Notes: \* Correlation is significant at the 0.05 level.

\*\* Correlation is significant at the 0.01 level.

Source: own calculations.

For the purposes of interpreting Table 3, we will follow the recommendations of De Vaus (2002), as they are adapted for the social sciences. In the case of Bulgaria, Croatia, Cyprus, the Czech Republic, Hungary, Latvia and Malta, there may be weak associations in the sample which cannot be generalized (probably due to a sampling error). For this reason, we do not assume a linear relationship between perceived price and perceived quality in these

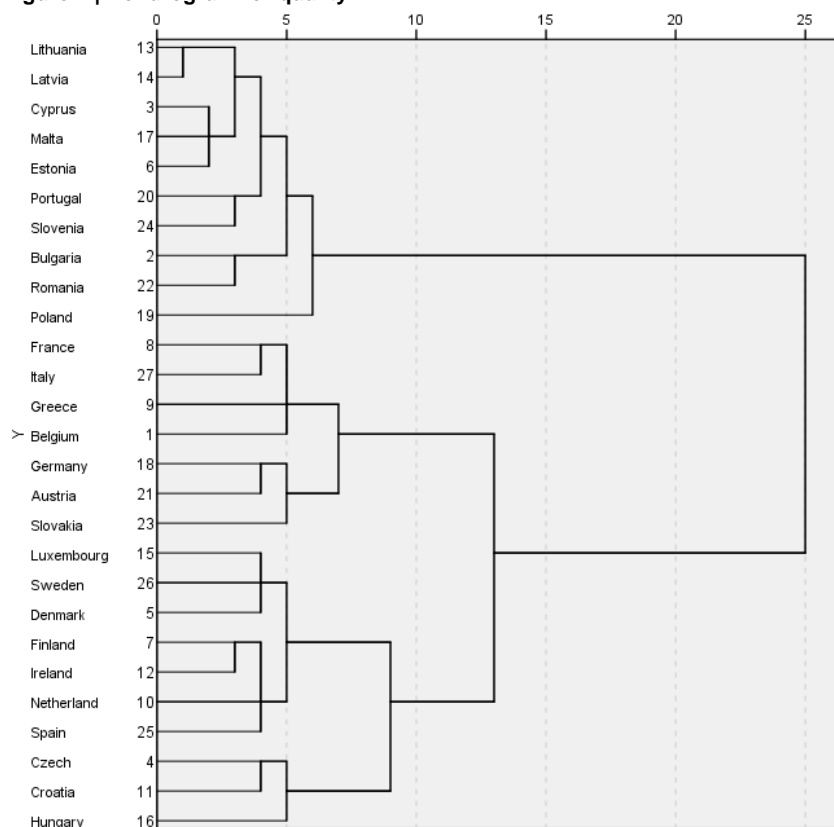
countries. In the case of Greece, Poland, Romania, Slovakia and Slovenia, it is possible to speak of a small to a medium positive association between the examined variables, which, however, tends to be generalized in the context of the confidence interval. It is also possible to generalize the negative relationship between price and quality in the case of Latvia's assessment in terms of a confidence interval. In Estonia, Germany, Ireland, Portugal and Spain, there is a medium to the significant (positive) relationship between perceived price and perceived quality, which can be generalized in terms of confidence interval and significance to the population. When perceiving the price and quality of food in countries of origin such as Denmark, Finland, France, Italy, Luxembourg, the Netherlands and Sweden, a strong relationship can be found that is likely to hold in the population.

*RQ3: What segments (groups) of countries arise based on similarity in perceived quality?*

We used cluster analysis to examine groups of countries based on the variable perceived quality of respondents. In the cluster analysis, we used Ward's clustering method with Euclidean distance recalculation. As it is a hierarchical cluster method, it can be recorded on a dendrogram (see Figure 1). In a thorough analysis, we concluded that the 27 countries of the European Union should be segmented into seven clusters:

- 1 Cluster (Belgium, France, Greece, Italy)
- 2 Cluster (Bulgaria, Cyprus, Estonia, Lithuania, Latvia, Malta, Portugal, Romania, Slovenia)
- 3 Cluster (Czech Republic, Croatia, Hungary)
- 4 Cluster (Denmark, Finland, Netherlands, Ireland, Luxembourg, Spain, Sweden)
- 5 Cluster (Germany, Austria)
- 6 Cluster (Poland)
- 7 Cluster (Slovakia)

**Figure 1 | Dendrogram for quality**



Source: own processing

In general (based on averages), cluster 6 can be described as a group of countries with the lowest quality food, while cluster 5 represents a group of countries that are perceived as the countries with the highest quality food.

*RQ4: What segments (groups) of countries arise based on similarity in perceived prices?*

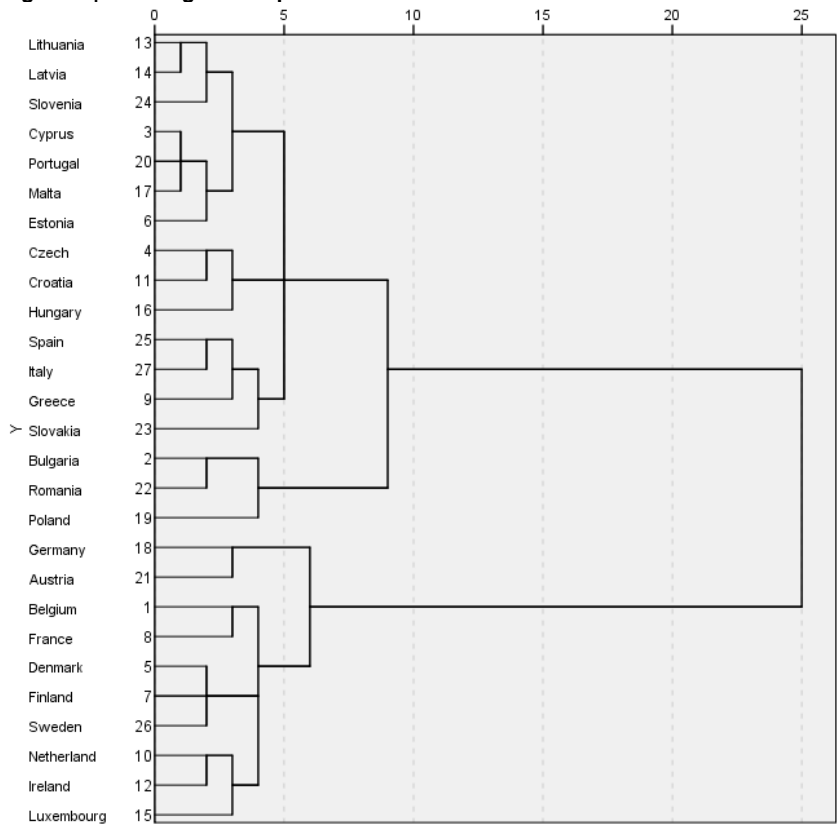
To examine the clusters of countries based on the variable perceived price of the respondents, we used a hierarchical cluster (with Ward's method clustering with Euclidean distance recalculation). As it is a hierarchical cluster method, it can be recorded on a dendrogram (see Figure 2). In a thorough analysis, we concluded that the 27 countries of the European Union should be segmented into seven clusters:

- 1 Cluster (Belgium, Denmark, Finland, France, Netherlands, Ireland, Luxembourg, Sweden)
- 2 Cluster (Bulgaria, Poland, Romania)
- 3 Cluster (Czech Republic, Croatia, Hungary)
- 4 Cluster (Cyprus, Estonia, Lithuania, Latvia, Malta, Portugal, Slovenia)
- 5 Cluster (Greece, Spain, Italy)

6 Cluster (Germany, Austria)

7 Cluster (Slovakia)

Figure 2 | Dendrogram for price



Source: own processing.

In general (based on averages), cluster 2 can be described as the group of countries with the cheapest food, while cluster 6 represents the group of countries that are perceived as the most expensive products.

*RQ5: What is the level of consumer ethnocentrism?*

The measurement of consumer ethnocentrism was performed based on the original version of CETSCALE (17 items), to which the respondent responded on a five-point Likert scale (1 - strong disagreement, 5 - strong agreement). It follows from the above that the measured values will be in the range of <17–85> points. The average measured value was at the level of 47.35 points (standard error 0.68), which represents a below-average level (44.63 %). The standard deviation was 11.38 points. The mode was at the level of 51 points and the median at 48, while the middle value of the scale represents 51 points. The measured minimum was 21 points, and the maximum was 76 points. Based on the above, we evaluate consumer ethnocentrism as below average to average.

*RQ6: How can the relationship between perceived price/quality and consumer ethnocentrism be characterized?*

*H2: Is there a relationship between the degree of consumer ethnocentrism and the perceived quality of individual EU countries.*

*H3: Is there a relationship between the degree of consumer ethnocentrism and the perceived price of individual EU countries.*

We used correlation analysis to examine the relationships specifically, Spearman's correlation coefficient was used. At the same time, we verified the significance of the correlation coefficient. We recorded the results for both hypotheses in Table 4.

**Table 4 | Examining the relationship between consumer ethnocentrism and the perceived quality of EU countries (H2) and consumer ethnocentrism and the perceived price of EU countries (H3)**

Country	H2		H3	
	CETSCALE / QUALITY		CETSCALE / PRICE	
	Correlation Coefficient	Sig.	Correlation Coefficient	Sig.
Austria	-0.031	0.6117*	0.022	0.7125*
Belgium	-0.026	0.6703*	-0.092	0.1246*
Bulgaria	0.052	0.3854*	0.094	0.1192*
Croatia	-0.037	0.5402*	0.093	0.1208*
Cyprus	0.008	0.8956*	0.053	0.3744*
Czech	0.019	0.7527*	0.108	0.0734*
Denmark	0.001	0.9866*	-0.011	0.8547*
Estonia	0.037	0.5372*	0.075	0.2125*
Finland	-0.017	0.7833*	0.035	0.5655*
France	0.043	0.4752*	-0.085	0.1553*
Germany	0.028	0.6366*	0.027	0.6565*
Greece	0.050	0.4072*	-0.028	0.6385*
Hungary	0.069	0.2499*	0.071	0.2377**
Ireland	-0.091	0.1290*	0.092	0.1277
Italy	0.015	0.8078*	-0.090	0.1330*
Latvia	0.024	0.6855*	0.161	0.0070**
Lithuania	0.021	0.7325*	0.119	0.0472*
Luxembourg	-0.032	0.5897*	-0.034	0.5748
Malta	0.017	0.7761*	0.143	0.0171*
Netherlands	-0.086	0.1535*	0.022	0.7120
Poland	-0.044	0.4643*	-0.023	0.7064
Portugal	0.018	0.7648*	-0.001	0.9907
Romania	0.025	0.6772*	0.025	0.6840
Slovakia	0.204	0.0006**	0.230	0.0001**
Slovenia	-0.034	0.5705*	0.187	0.0017**
Spain	-0.002	0.9775*	-0.025	0.6732*
Sweden	0.065	0.2828*	-0.012	0.8378*

Notes: \* Correlation is significant at the 0.05 level.

\*\* Correlation is significant at the 0.01 level.

Source: own calculations

The results from Table 4 indicate that the evaluation of the perceived quality and the evaluation of the perceived price of Slovak food have a weak relationship with the degree of consumer ethnocentrism which, however, can be generalized to the population. In terms of quality, the relationship is characterized by a coefficient of 0.204 (df = 275; CI = <0.088 -

0.314>), which represents a weak positive dependence. At the price, the relationship is characterized by a coefficient of 0.230 ( $df = 275$ ;  $CI = <0.115 - 0.338>$ ) which represents a weak positive dependence. This result is logical, as theories of consumer ethnocentrism have a direct impact on the home country.

In the conditions of the relationship between the evaluation of the subjective quality and the degree of consumer ethnocentrism, it can be stated that there is a relationship only in the case of Slovakia. In the case of the relationship between the assessment of subjectively perceived price and the degree of consumer ethnocentrism, a trivial correlation can also be observed in Lithuania, Latvia, Malta and Slovenia. In other countries of origin, a trivial (negative and positive) correlation was found, which cannot be generalized, and therefore we will understand it as a zero correlation within populations.

## 4 Discussion

In this work, we focus on the young generation (15-26 years old), who will soon form the basic working population, and thus the purchasing power in Slovakia. It is, therefore, necessary to focus on this segment.

The perceived price and perceived quality within the European Union are not identical at the national level. The highest quality food is considered Austrian, and the lowest quality is Romanian. French food is perceived as the most expensive and Polish food the one of the lowest quality. This assessment can be related to both consumer empiricism and media coverage (dual quality, various cases and scandals). The stereotypical ideas of the respondents, the perception of the country in the context of its economic status and many other political-economic factors may also play a role in the evaluation.

The relationship between perceived price and quality usually points to a positive relationship which signals that respondents perceive better quality food from individual countries as more expensive. This relationship has not been verified in countries such as Bulgaria, Croatia, Cyprus, the Czech Republic, Hungary, Latvia and Malta. This may be the result of the fact that some respondents have experience with products from these countries and with their purchases in these countries (the Czech Republic and Hungary are neighbouring countries, while Bulgaria and Croatia are preferred holiday destinations).

Cluster analysis at perceived price and perceived quality showed significance for seven clusters. Their interpretation is challenging, as the average perceived variables do not represent strong differences. However, if we take a closer look at the countries, some connections can be noticed. We consider cultural factors (cultural similarity), geographical factors (geographical location), the economic situation and, in the case of Slovakia, the effect of ethnocentrism to be the most important. At the same time, the effect of ethnocentrism has been shown to be positive in terms of assessing perceived quality and perceived price, but not significantly in other countries. Therefore, it can be stated that the effect of consumer ethnocentrism affects the domestic country in terms of preference and does not act as a significant barrier (negative) to foreign countries.

The main difference is that the country of origin effect is based on external influences such as the product (its characteristics) and the country it comes from, while consumer ethnocentrism is based on an internal belief in the need to buy products of domestic origin (most often for home country prosperity). In other words, if a Slovak consumer requests

Slovak product based on the characteristics of the products, it is a country of origin effect, but if he buys Slovak products due to an internal belief in the need to purchase domestic production to support a domestic country, it is consumer ethnocentrism. Domestic product preferences are thus influenced by ethnocentric tendencies. Based on many kinds of research, it can be stated that the foreign product must be examined in terms of the availability of the domestic equivalent. In the context of the general product line "food", the equivalent is debatable. Based on research, it can be assumed that a strongly ethnocentric consumer will not succumb to the effect of the country of origin if there is a domestic equivalent and will therefore prefer a domestic equivalent. A consumer with a low degree of consumer ethnocentrism is more prone to succumb to the effect of the country of origin (foreign origin) if this effect is strong enough and positive. From the point of view of the possibility that there is no domestic equivalent, a strongly ethnocentric consumer will either succumb (Supphellen & Rittenburg, 2001) or will not make the purchase. In this case, a consumer with a low degree of ethnocentrism can decide based on the country of origin effect. If we look at the analogy from the perspective of the country of origin, we can distinguish two types of countries – domestic and foreign. If we evaluate the home country of origin in terms of product attributes and their interconnection, the effect of the country of origin effect is possible. However, if the preference of the home country is based on the influence of ethnocentrism, it is a manifestation of consumer ethnocentrism. From the point of view of a foreign country, a similar country of origin can be distinguished from the domestic one. In this case, the ethnocentric consumer may be influenced in the second round of decision-making by the limited effect of the country of origin. However, when it comes to the impact of product attributes in the context of the foreign country of origin, we can talk about the effect of the country of origin.

## Conclusion

The present study has several objectives. The goals can be formulated into five units, which logically follow each other.

When examining the perceived price and quality of food, differences in the context of individual countries were demonstrated. The best quality rating in terms of average rating was given to Austrian food and the worst food from Romania. Foods from Germany are considered to be the most expensive and, on the contrary, food products from Poland are considered to be the cheapest on average. The relationship between perceived price and quality has been demonstrated in several countries of the European Union, but not in each. This is usually a positive relationship of varying intensity. In both quality and price perceptions, we identified seven important segments (clusters) of European Union countries in both cases; with the country's economic situation, stereotypical perception, geographical location, cultural similarity, and media reputation as latent factors influencing evaluation. The level of consumer ethnocentrism was below average to average. The degree of consumer ethnocentrism has a positive effect on the assessment of the perceived price and perceived quality of food in the home country. Based on the above, we consider all formulated goals to be met.

The presented article contains certain limits. One of the limits is the sample we work with in the article. The sample is not representative, but we use statistical testing and calculations of reliability coefficients to generalize some results. In this article, we focus on food in general,

which in some cases can cause differences in perceptions of the term. This assessment can be influenced by stereotypes but also by the preferences and evaluation of only certain foods from certain countries. It is important to realize that it is difficult to work in food research in an international context, as there may be a number of regulatory measures and practices. If we decided to deal with specific foods, such as milk, we would come across several aspects that could significantly distort the perception of price and quality (in Hungary, whole milk represents 2.8 % percent of fat in Slovakia, it is 3.5 %; in Hungary milk is subject to price regulation but not in Slovakia). It is for this reason that many scientists work with food in general to examine the characteristics and manifestations of a given society (not just for the purposes of marketing and trade).

In future work, it would be appropriate to examine the economic indicators of individual countries on the perceived price and quality, as well as the impact of cultural dimensions. There is also the opportunity to explore other age segments and generations. It would also be appropriate to carry out further research specializing in certain specific products. It would also be interesting to examine the influence of demographic factors on the assessment of the price and quality of individual countries as well as in the context of consumer ethnocentrism. At the same time, it would be appropriate to examine the impact of evaluation on the desire or rejection of the products (conical intent).

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