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The role of ethnocentrism in relation to national and geographical indication products – The case of Hungarian pálinka

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ABSTRACT

Consumer ethnocentrism plays a key role in the markets of developed countries when governments take protectionist measures due to economic crises and downturns. Consumer ethnocentrism appears to be stronger in relation to the choice and purchase of food and beverages. The purpose of the current study is to investigate the relationship between consumer ethnocentrism and socio-demographic characteristics in the case of a Hungarian national 'geographical indication' (GI) spirit called pálinka. The literature emphasises the importance of testing the impact of consumer ethnocentrism on different products, and research on national and GI products is quite limited. Although pálinka is one of the best-known products in Hungary, the perception and quality of the alcoholic beverage have undergone significant changes in recent decades. The analysed sample, representative of the Hungarian alcohol-consuming population, contains the answers of 760 respondents. Consumers' Ethnocentric Tendencies Scale items were used to cluster consumer groups with different perceptions using latent profile analysis (LPA). According to the results, consumer ethnocentrism remains a significant issue in the Hungarian pálinka market despite growing globalisation and consumers' openness to foreign products. There is a higher level of ethnocentrism with national and GI products, which needs to be taken into account by market participants. With the help of cluster analysis, four consumer groups with different socio-demographic characteristics were identified. The results may help actors in the pálinka industry and their competitors (e.g., vodka and whiskey producers and distributors) to understand the Hungarian alcohol market and related consumer groups in respect of ethnocentrism.

1. Introduction

One of the most important issues in the international economy and marketing is the tendency of customers to prefer local products and brands over foreign ones [1]. This phenomenon, called ethnocentrism, means that purchasing decisions depend not only on price or quality but also on the place of origin or country of products [2,3]. Due to the increasing role of globalisation, consumer ethnocentrism may play an important role in markets [1,4], especially nowadays, when economic downturns and crises are encouraging governments to take protectionist measures. A company's success or failure in the local or export markets, particularly in a globally competitive business environment, depends on the ability to understand consumers' needs and preferences [5], especially regarding ethnocentrism.

Ethnocentric consumers are reluctant to buy products from non-domestic suppliers and companies ('foreign countries') because of their loyalty towards their own country. In addition, ethnocentric consumers believe that products from their home country are better quality. This may significantly reduce the purchase of non-domestic products [6,7]. However, there are important differences in consumers' cognitive processes and purchasing behaviour that are mainly associated with four demographic characteristics: age, gender, level of education, and income [8–13], which can be considered a means of segmentation in purchasing and marketing practice.

Consumer ethnocentrism and various socio-demographic variables impact the purchase of food and beverages [12,14,15], and the latter can be considered influencing factors. The current research aims to assess the impact of demographic characteristics (e.g. gender, age, level of

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education and personal income) on ethnocentrism and purchasing behaviour. The research sample included Hungarian pálinka consumers since many studies have emphasised the importance of testing the impact of consumer ethnocentrism on different products, and the literature on national and GI products investigating their consumers' ethnocentrism is quite limited [13,16–19]. While numerous studies have explored the impact of consumer ethnocentrism on various products or general product categories, there remains a significant gap in the context of traditional and culturally significant products associated with GI. This study aims to fill this gap by focusing on Hungarian pálinka, a product with deep and specific cultural context and national significance and offers a deeper understanding of how ethnocentrism influences consumer behaviour in relation to culturally and nationally embedded products. Moreover, according to previous research [15,20,21], clusters or groups can be created based on ethnocentrism and socio-demographic characteristics, thus the strategies of companies producing or selling pálinka should vary according to the targeted population segment. Applying statistical techniques on a well-defined sample, as described in the methodology, to segment consumers based on ethnocentric tendencies and socioeconomic characteristics is a relatively novel approach that is not widespread in the literature. Thus, this study offers a conceptual and methodological template for (future) research in similar cultural contexts.

1.1. Pálinka as a national and GI product

Pálinka is the national drink of Hungary, and the perception and quality of this product have undergone significant changes in recent years. From the 1990s until the millennium, pálinka was considered to be a low-quality spirit due to its poor reputation – it was typically distilled using low-quality materials in unregulated conditions on an industrial scale. The breakthrough and turnaround in quality and the perception of the drink took place at the beginning of the twenty-first century [22,23] due to changes in legislation, the acquisition of the EUGeographical Indication (GI) label, and the award of distinguished Hungarian national product ('Hungaricum') status [24–27]. According to the legislation, only those fruit spirits can be called pálinka, which are made from fruit grown in Hungary and are also mashed, distilled, matured, and bottled within the country. The only exception is apricot pálinka, whose ingredients can also be sourced from four Austrian provinces (Burgenland, Lower Austria, Styria, and Vienna).

Pálinka and 'törkölypálinka', made from marc (grape pomace), are products with GI that have been recognised by the EU since 2008, while fourteen other regional pálinkas have obtained such recognition [28]. According to Hungarian regulations (Act LXVIII of 2016 on Excise Duties), spirits (distillate or pálinka) can currently be made in three ways (private, contract, and commercial distillation), but only commercial distilleries can produce pálinka as a national and GI drink, and the products from private and contract distillation can only be described as 'distillates' (with a few exceptions).

1.2. Ethnocentrism and consumer ethnocentrism

Human behaviour is motivated by numerous factors (e.g., physical, social, cultural, and psychological). Ethnocentrism, introduced by Summer [29], is a sociological concept that describes how one's own group may be perceived as the centre of everything, with all other groups being evaluated from this perspective. Shimp and Sharma's [2] definition can be considered the basis of the concept of consumer ethnocentrism. According to the latter, consumer ethnocentrism refers to consumers' beliefs about the validity and morality of purchasing non-domestic products. Ethnocentric behaviour and ethnocentrism may be declining in a more globalised world (e.g., Francis [30]), although the economic and social challenges and changes of the 2000s onwards have partly reversed this phenomenon.

More ethnocentric consumers are less willing to purchase products from foreign countries and have favourable cognitive, normative, and emotional attitudes toward domestic products. More ethnocentric people prefer products from countries with similar cultures and objects and reject cultures and objects dissimilar to their own [31,32]. Purchasing non-domestic products may lead to domestic job losses and negatively affect one's national economy, so consumers with strong ethnocentrism tend to consider purchasing non-domestic products to be harmful, 'non-ethnic' behaviour, while consumers with weak ethnocentrism instead purchase products based on their perceived value or benefit (e.g., organic products) [8,33–35]. This behaviour may lead consumers to overestimate the value of domestic products and underestimate that of imported ones.

Nationalism and patriotism can be considered an integral part of consumer ethnocentrism and affect attitude, purchasing behaviour, and action [8,36,37]. It follows that demographic and cultural differences may explain the differences between countries. Consumers who are more nationalistic may be willing to make sacrifices to buy local products because they perceive that imported products may damage their country's economy. Patriotic consumers consider domestic goods to be better or higher quality products than imported ones, strengthening the intention to purchase domestic products. Ethnocentric consumers have strongly favourable attitudes towards products from local countries and brands [38].

1.3. Consumers and ethnocentrism

Research on ethnocentrism can be found in both developed [8,9,17,39,40] and developing countries [19,41–43]. Concerning foodstuffs and beverages, consumers in developed countries usually prefer domestic products to imported ones [35,40,43]. In contrast, in some developing countries, people are less ethnocentric because they consider their domestic products to be of lower quality than imported products from the 'developed' world [44,45]. In the 1990s and 2000s, the trend in Central and Eastern European countries, including Hungary, was similar to that in developing countries today [46–48]. Since Hungary joined the European Union, however, Hungarian consumers have started to see Hungarian products as of higher quality, and the level of ethnocentrism (particularly associated with foodstuffs and alcoholic beverages) has begun to increase [49–52]. However, Hungarian consumers were found to differ along various socio-demographic characteristics [53,54]. In CEE countries, the presence of ethnocentrism can be established by examining Czech and Polish beer and wine consumers [55,56]. Overall, it can be concluded that ethnocentrism is present in relation to alcoholic beverages and foodstuffs in Europe, and the situation in Central and Eastern Europe is no exception.

In general, the level of ethnocentrism can be considered high for foodstuffs and beverages, and European consumers generally prefer and choose domestic products in these product categories [17,18,43,57,58]. Furthermore, it has been observed that ethnocentrism is even stronger for products of 'national importance' [54,59–61].

The Consumers' Ethnocentric Tendencies Scale (CETSCALE) is most often used in the literature to measure consumer ethnocentrism [9,62,63]. Our study also applies the scale created by Shimp and Sharma [2], developed in the context of US consumers and containing 17 statements (items), which is the one most often used in the literature. However, many studies [39,42,64–67] have applied 12, 11, 10, 6, 4, or 3 items, which approach is also considered reliable.

The literature supports the claim that women [8,9,15,31,39,68], older people [8,9,15,19,31,34,39,42,65,68–70], people with a lower-level education [9,31,34,68–70] and those with a smaller income [9,31,68] have a tendency to be more ethnocentric (see Table 1). Some studies [71,72] have shown that ethnocentric tendencies may be stronger among consumers living in smaller cities, towns, or villages. Thus, ethnocentrism is less characteristic of the consumers of larger cities due to the greater purchasing opportunities and the numerous foreign products and brands. Moreover, according to Ma, Yang [73],

Table 1
Studies that have investigated ethnocentrism from a socio-demographic perspective.

Author (Year)	Country	Product/service	Respondents (n)	Examined socio-demographic characteristics	Significant variable(s)[a]
[9]	Poland, Russia	General	947	Age, sex, education, income	In Poland, age (older), sex (female), education (lower) and income (lower); in Russia, only level of education (lower)
[69]	Malta	General	350	Occupation, education, residence, summer residence, income, cars, age, gender, status	Level of education (lower) and age (older)
[31]	New-Zealand	refrigerators, televisions and cameras	421	Gender, age, education, income	Gender (female), age (older), education (lower), and income (lower)
[8]	Turkey, Czech Republic	General	783	Gender, age, income, university education	In Turkey, gender (female), age (older) and income (lower); in the Czech Republic, only income (higher)
[65]	Russia	General	211	Gender, age	Age (older)
[68]	Turkey	General	283	Gender, education level, age, income	Gender (female), education level (lower), age (older) and income (lower)
[39]	Australia	General	361	Age, gender, income	Age (older) and gender (female)
[42]	China, Slovenia, Croatia, Macedonia	FMCGs (e.g., toiletries, cosmetics and soft drinks)	929	Age	Age (older)
[34]	China	groceries, laptops, luxury products	347	Gender, age group, education level	Age group (older) and education level (lower)
[15]	Portugal	olive oil	421	Gender, age, education, work role, income	Gender (female) and age (older)
[53]	Hungary	food products	1001	Age, gender, qualification, education level, residence	Education level (lower) and residence (village)
[19]	Azerbaijan	clothing, food, technology, cleaning, construction, and medical products	467	Gender, age, personal income, marital status	Age group (older) and marital status (married)
[12]	Poland	food products	1000	Gender, age, household size, number of children, residence, education, income	Age (middle-aged), household size (bigger) and household size (bigger)
[70]	Bangladesh	electronic products	172	Gender, age, educational level, family income, occupation, marital status	Age (older), educational level (lower), occupation and marital status (married)

Note.
[a] Brackets show which groups are considered more ethnocentric consumers.
Source: Authors' construction

global-minded consumers are less ethnocentric than local-minded customers.

Some authors have created different groups according to ethnocentrism and socio-demographic characteristics, in a similar manner to the currently described study, based on which companies can apply different (marketing or sales) strategies. For example, Szakály, Balogh [21] created three groups ('Patriots'; 'Young cosmopolitans' and 'Elderly nationalists') and Schnettler, Miranda [20] created five groups ('Ethnocentric, patriotic, but practical'; 'Patriotic'; 'Ethnocentric, patriotic and protectionist'; 'Receptive to food imports'; 'Pragmatic with respect to food imports').

The main goal of the paper is to describe research that has examined the impact of ethnocentrism on the choices of Hungarian pálinka consumers, paying close attention to various socio-demographic variables. In the literature, very little attention is paid to the importance of ethnocentrism, particularly among Central and Eastern European (CEE) consumers, and pálinka is a product with a specific cultural context. Accordingly, this study provides new insights that enrich the literature on consumer ethnocentrism and product perception. However, since the European Union is placing more and more emphasis on products with geographical indications, it is interesting, both from the scientific and corporate perspective, to examine consumer ethnocentrism through this example of this product.

2. Materials and methods

2.1. Research process and presentation of the sample

The research took place between April and June 2021. The data collection associated with the online questionnaire was carried out by a professional market research company, InnoFood Marketing Ltd., based on a four-part questionnaire: (1) behaviour and knowledge related to the purchase and consumption of pálinka, (2) a discrete choice experiment (DCE) used to measure preferences, (3) application of CETSCALE, and (4) sociodemographic characteristics of respondents. In this study, the responses to the CETSCALE statements related to ethnocentrism are described and analysed in depth. The sample (Table 2), using answers from 1000 respondents representative of the Hungarian alcohol-consuming population, contained the answers of 760 people after data cleaning (i.e., the exclusion of incomplete or incorrectly completed questionnaires). The exclusion criteria were having drunk pálinka within the last six months. Most of the consumers in the sample are male, over 45 years old, have completed at least secondary education, and have an above-average income. These factors coincide with the image of a typical pálinka consumer identified in previous research [74,75].

2.2. Description of methodology

For the first stage of the study, a descriptive statistical analysis of 17 statements that measure the level of ethnocentrism was undertaken. For the ratios, arithmetic averages and standard deviations were calculated. Although the original scale consisted of a seven-item Likert-type scale [2], a five-point Likert-type scale (1 – 'strongly disagree' to 5 – 'strongly agree') was used for the ease of participants' use [19,76].

In the second stage of the analysis, the CETSCALE statements/variables were used to create consumer groups/clusters associated with different perceptions using latent profile analysis (LPA). To identify the correct cluster number, several solutions were tested. The model types included: (1) Constrained variance, fixed covariance (EII); (2) Constrained variance, constrained covariance (EEE); (3) Freed variance, fixed covariance (VVI); and (4) Freed variance, freed covariance (VVV) [77]. To compare the models, the following information criteria and

Table 2
Presentation of the sample.

Characteristics	Sample (n = 760)	Sample (%)
Gender		
Female	277	36.4
Male	483	63.6
Age		
Under 45 years	191	25.1
45–60	237	31.2
Over 60 years	332	43.7
Place of residence*		
Village	201	26.5
City	311	40.9
Large city	248	32.6
Level of education[a]		
Basic education	18	2.4
Secondary education	330	43.4
Higher education	412	54.2
Income situation[b]		
Below-average income	67	8.8
Average income	268	35.3
Above-average income	425	55.9

Note: Village: <10,000 inhabitants, City: 10,000–100,000 inhabitants, Large city: 100,000 < inhabitants.
[a] Basic education: lower secondary education or below; Secondary education: upper secondary education or college qualification below a degree; Higher education: at least Bachelor's degree or post-graduate qualifications.
[b] Income based on respondents' self-classification using the three subjective income categories.
Source: Authors' construction

Table 3
Descriptive statistics for CETSCALE items measured using a 5-point Likert-scale.

CETSCALE items	Mean	Median	Standard deviation
By purchasing Hungarian products, we can protect Hungarian jobs.	4.03	4.00	1.03
I prefer Hungarian products above all.	3.71	4.00	1.09
Hungarian people should always buy Hungarian-made products instead of imports.	3.61	4.00	1.13
Only those products that are unavailable in Hungary should be imported.	3.59	4.00	1.16
There should be very little trading or purchasing of goods from other countries unless out of necessity.	3.49	4.00	1.09
We should only buy products from foreign countries that we cannot obtain within our own country.	3.17	3.00	1.25
It may cost me in the long run, but I prefer to support Hungarian products.	3.12	3.00	1.12
We should purchase products manufactured in Hungary instead of letting other countries get rich off us.	3.11	3.00	1.21
It is always best to purchase Hungarian products.	2.94	3.00	1.18
It is not right to purchase foreign products because it puts Hungarians out of jobs.	2.76	3.00	1.20
Foreign products should be taxed heavily to reduce their entry into Hungary.	2.61	3.00	1.19
Hungarians should not buy foreign products because this hurts Hungarian businesses and causes unemployment.	2.54	2.00	1.17
Purchasing foreign-made products is un-Hungarian	2.46	2.00	1.23
A real Hungarian should always buy Hungarian-made products.	2.40	2.00	1.26
Hungarian consumers who purchase products made in other countries are responsible for putting their fellow Hungarians out of work.	2.25	2.00	1.13
Curbs should be put on all imports.	2.17	2.00	1.10
Foreigners should not be allowed to put their products on our market.	2.08	2.00	1.00
Sample	**50.04**	**50.00**	**19.54**

Source: Authors' construction based on Shrimp and Sharma (1987)

factors were examined: (1) converged log-likelihood value; (2) Bayesian information criterion (BIC); (3) entropy value; and (4) the size of the cluster with the fewest persons. In the case of the first two indicators, a lower value indicates a better model fit, while in the case of the entropy value mentioned in (3), a higher value indicates an improvement in the specification. Regarding the size of the clusters, it was examined whether there are clusters that contain less than 5 % of respondents from the entire sample [78–80]. The analysis was performed using the tidyLPA package of the R program [81].

Analysis of variance (ANOVA) and Pearson's chi-squared test were applied to examine the characteristics of the clusters. The first test was a parametric procedure that examined the existence of a significant difference between independent groups. When a significant difference was identified, Bonferroni's post hoc test was used to examine it in more depth. The latter test (Pearson's chi-squared) is used to identify the existence of a significant difference between an empirical and a hypothetical (as expected in the case of independence) frequency table. For the tests, a 5 % type-I error ($\alpha = 5$ %) was determined [82].

3. Results

3.1. The ethnocentrism of pálinka consumers

The descriptive statistics associated with the seventeen statements related to ethnocentrism are presented in Table 3.

Based on the results of Table 3, the strongest consensus occurs with the statement, 'By purchasing Hungarian products, we can protect Hungarian jobs' (mean 4.03). The weakest degree of agreement is with 'Foreigners should not be allowed to sell their products on our market' (mean 2.08). According to the CETSCALE statements, respondents believe that imported products may be present in the Hungarian market, especially if there is no Hungarian product alternative. Overall, the CETSCALE items in the sample are associated with an average mean score of 50.04 and a standard deviation of 19.54.

Table 4
Information criteria about the number of clusters examined during the cluster analysis.

	Log-likelihood	BIC	Entropy	Minimum class size (%)
Two clusters	−12778.99	26805.05	0.81	0.22
Three clusters	−12757.41	26881.29	0.82	0.07
Four clusters	**−12657.54**	**26800.94**	**0.84**	**0.06**
Five clusters	−12646.74	26898.74	0.82	0.05

Source: Authors' construction

Table 5
Mean values of clusters for the CETSCALE items measured on a 5-point Likert-scale.

CETSCALE items	Mean				F-value
	Rural Ethnocentrists ($n = 47$)	Ageing Ethnocentrists ($n = 134$)	Wealthy Metropolitans ($n = 518$)	Underprivileged Metropolitans ($n = 61$)	
Hungarian people should always buy Hungarian-made products instead of imports.	4.64[a]	4.45[a]	3.49	1.93	125.36[a]
Only those products that are unavailable in Hungary should be imported.	4.55[a]	4.32[a]	3.48	2.16	79.93[a]
By purchasing Hungarian products, we can protect Hungarian jobs.	4.79[a]	4.83[a]	4.05	1.54	391.58[a]
I prefer Hungarian products above all.	4.70[a]	4.60[a]	3.57	2.11	138.23[a]
Purchasing foreign-made products is un-Hungarian	4.34	3.71	2.08	1.51	199.84[a]
It is not right to purchase foreign products because it puts Hungarians out of jobs.	4.55	3.87	2.46	1.57	176.83[a]
A real Hungarian should always buy Hungarian-made products.	4.51	4.08	1.90	1.39	475.43[a]
We should purchase products manufactured in Hungary instead of letting other countries get rich off us.	4.68	4.12	2.88	1.67	144.82[a]
It is always best to purchase Hungarian products.	4.49	3.87	2.69	1.74	124.10[a]
There should be very little trading or purchasing of goods from other countries unless out of necessity.	4.45[a]	4.12[a]	3.42	2.02	87.37[a]
Hungarians should not buy foreign products because this hurts Hungarian businesses and causes unemployment.	4.34	3.67	2.22	1.41	197.25[a]
Curbs should be put on all imports.	4.13	2.76	1.94	1.34	120.56[a]
It may cost me in the long run but I prefer to support Hungarian products.	4.51	4.09	2.89	1.84	142.51[a]
Foreigners should not be allowed to put their products on our market.	4.45	2.46	1.85	1.33	210.75[a]
Foreign products should be taxed heavily to reduce their entry into Hungary.	4.49	3.40	2.36	1.48	125.97[a]
We should only buy products from foreign countries that we cannot obtain within our own country.	4.64	4.10	2.96	1.80	108.04[a]
Hungarian consumers who purchase products made in other countries are responsible for putting their fellow Hungarians out of work.	4.30	3.01	1.97	1.30	156.28[a]
Total	76.56	65.46	46.21	28.14	

Note.
[a] Statistical significance at the 5 % level. Use of the same superscript indicates that the evaluations of the statements do not differ significantly.
Source: Authors' construction

3.2. Consumer groups and their sociodemographic characteristics in relation to ethnocentrism

During the cluster analysis, the optimal number of clusters was first determined according to the criteria described in the previous chapter. The four-cluster (constrained variance, constrained covariance [EEE]) solution type was considered to be optimal based on the examined information criteria (Table 4) and considering the interpretability of the results. It can be determined from the values in Table 4 that, although the value of the log-likelihood decreased even in the five-cluster case, BIC increased, and the entropy value decreased, indicating the poor fit of the five-cluster model. Furthermore, regarding the size of the clusters, in the case of the four-cluster solution, the smallest cluster size is still 6 % (i.e., the cluster with the smallest number of elements includes 6 % of the entire sample), while for the five-cluster model, it only reaches the threshold of 5 %.

Table 5 shows the average values of the clusters for the tested statements.

Based on the results of Table 5, there is a significant difference between the clusters in their assessment of the CETSCALE items/statements. However, based on the pairwise comparisons, we conclude that there no significant difference in the strength of agreement with specific statements (first, second, third, fourth and tenth) only between the first and second clusters.

The **first cluster (**Rural Ethnocentrists) includes a relatively small number of respondents (forty-seven people) with the highest average values for agreement (except for the previously mentioned five statements, where no significant difference in the assessment of the statements can be detected compared to the second group). Members of this group have the strongest degree of ethnocentrism. The **second group** (Aging Ethnocentrists) contains 134 people and is characterised by a relatively high level of ethnocentrism. Agreement with all statements is significantly stronger than with the third and fourth groups. The **third cluster** (Wealthy Metropolitans) includes the largest proportion of respondents (518 people). Members of this group are less committed to ethnocentrism, and agreement with the statements is significantly less

Table 6
Frequency of pálinka consumption among the identified clusters (%).

Characteristic	Rural Ethnocentrists (n = 47)	Ageing Ethnocentrists (n = 134)	Wealthy Metropolitans (n = 518)	Underprivileged Metropolitans (n = 61)	χ^2 -statistic
Never	12.7	6.4^{-}	59.6	21.3^{+}	37.92[a]
Very infrequently	13.0^{+}	10.9	63.1	13.0	
Few times a year	6.0	16.3	68.8	8.9	
Monthly	5.8	18.6	70.5	5.1	
Weekly	1.9^{-}	20.6	73.7	3.8^{-}	
Several times a week	7.4	20.8	63.1	8.7	

Note.
[a] Statistical significance at the 5 % level. The '+' symbol in the superscript indicates that the value of the adjusted residual is greater than 2. The '-'symbol in the superscript indicates that the value of the adjusted residual is less than −2.

Table 7
Characterisation of clusters according to socio-demographic characteristics.

Characteristic	Rural Ethnocentrists (n = 47)	Ageing Ethnocentrists (n = 134)	Wealthy Metropolitans (n = 518)	Underprivileged Metropolitans (n = 61)	χ^2 -statistic
Gender (%)					
Female	5.1	17.0	71.8	6.1	3.82
Male	6.8	18.0	66.1	9.1	
Age (%)					
Under 45 years	6.3	9.4^{-}	78.0^{+}	6.3	20.03[a]
45–60	6.3	16.5	66.7	10.5	
Over 60 years	6.0	23.2^{+}	63.6^{-}	7.2	
Residence (%)					
Village	7.9	19.4	66.2	6.5	13.31[a]
City	7.4	19.3	66.9	6.4	
Large city	3.2^{-}	14.1	71.4	11.3^{+}	
Level of education (%)					
Basic education	11.1	27.8	55.5	5.6	17.93[a]
Secondary education	9.4^{+}	19.1	62.4^{-}	9.1	
Higher education	3.4^{-}	16.0	73.3^{+}	7.3	
Income situation (%)					
Below-average income	14.9^{+}	16.4	55.2^{-}	13.5	20.05[a]
Average income	7.8	19.4	65.0	7.8	
Above-average income	3.8^{-}	16.7	72.2^{+}	7.3	

Note.
[a] Statistical significance at the 5 % level. The '+' symbol in the superscript indicates that the value of the adjusted residual is greater than 2. The '-' symbol in the superscript indicates that the value of the adjusted residual is less than −2.
Source: Authors' construction

than that of members of the first and second clusters. The members of the **fourth cluster** (Underprivileged Metropolitans, 61 people) are characterised by having the weakest agreement with all CETSCALE statements compared to the other three groups.

According to the frequency of pálinka consumption, there are differences between the clusters (Table 6). Significantly fewer people never drink pálinka in the second cluster (Aging Ethnocentrists), and significantly more people never drink pálinka in the fourth cluster (Underprivileged Metropolitans). Significantly more people consume pálinka less often than annually in the first cluster (Rural Ethnocentrists), and significantly fewer people drink pálinka every week in the first (Rural Ethnocentrists) and fourth clusters (Underpriviliged Metropolitans).

Table 7 shows that there is a significant relationship between the clusters with age, place of residence, level of education and income status, and there is no statistically significant effect in terms of gender. In the case of **Rural Ethnocentrists** (47 respondents), there are significantly fewer respondents from large cities with a higher education and an above-average income but significantly more respondents with a (maximum) secondary education and below-average income. In the group of **Aging Ethnocentrists** (134 respondents), there are significantly fewer consumers under the age of 45 but significantly more over the age of 60. **Wealthy Metropolitans** (518 respondents), in contrast to the second cluster, contains significantly fewer respondents over 60 but more under 45. In terms of education, the group is characterised by significantly more people with a higher level of education and fewer with a maximum of secondary education. Examining the income situation of the respondents in this cluster, we conclude that there are significantly fewer respondents with a below-average income and significantly more with an income that is above average. Finally, in the case of the **Underprivileged Metropolitans** (61 respondents), a significant effect can only be identified regarding the classification of the place of residence since there are significantly more members of this group living in big cities.

4. Discussion

The research identified that the average value of the CETSCALE statements is 50.04, and the average value of the standard deviations is 19.04. These values are much higher than the values found in the developed countries of the EU [12,16,83], the USA [2,83], Japan [83] and Oceania [31,84]. However, Turkish [68] and Hungarian values [49, 53] do not differ greatly. This suggests that, in practice, Hungarian companies (producers, distilleries, and retailers) should emphasise the Hungarian origin of products much more. During the research, Hungarian origin was *not* decisive, at least to some extent, for only a few respondents. There is already a state-owned label dedicated to

Table 8
Consumer groups and their characteristics.

Cluster name	Ethnocentrism	Main characteristics	Recommendation
Rural Ethnocentrists (n = 47)	Strongest degree of ethnocentrism	Live in smaller cities or villages, secondary or primary level of education, below-average income	Emphasising Hungarian origin may be a good strategy; however, limited financial capacity is an obstacle.
Ageing Ethnocentrists (n = 134)	Relatively high level of ethnocentrism	Over 60 years old, small proportion of people under 45 years of age	Age is characteristic of typical pálinka consumer, chance to emphasise Hungarian origins of product
Wealthy Metropolitans (n = 518)	Lower degree of ethnocentrism	Under 45 years, higher education, above-average income	Role of education is decisive; potential future consumers, more focus on Hungarian origins could play an important role in purchases
Underprivileged Metropolitans (n = 61)	Weakest ethnocentrism	Live in large cities	Hungarian origin clearly not a significant factor.

Source: Authors' construction

Hungarian products [85] but it is necessary to verify through further research which labels, in addition to the GI logo [71], create additional value or a price premium.

There was a strong consensus among Hungarian pálinka consumers that purchasing non-domestic products leads to job losses, which can harm the domestic economy. Choosing Hungarian products instead of imported ones is also seen as necessary, and it is common to consider them to be of the best quality. These findings for food and beverages have been found to be typical in several pieces of research [8,34,53]. However, according to Hungarian consumers, imported products also have a place on the market, especially if there is no Hungarian alternative. This can be inferred from the fact that Hungarians generally do not agree that curbs on imported products are necessary, and there is also agreement that foreign companies should put their products on the Hungarian market. Therefore, there is some inconsistency in the responses to the CETSCALE statements. This inconsistency (confirmed by Szakály and his co-authors [49]) can be explained by noting that Hungarian pálinka consumers consider purchasing domestic products to be a moral act, but this does not necessarily follow through to purchasing situation(s). Furthermore, it must be emphasised that pálinka has alternatives and competitors in the Hungarian market, mainly whiskey and vodka, which are typically cheaper. In market conditions, consumers often prefer these products. However, of course, some Hungarian consumers are willing to pay more for pálinka in a real buying situation. In general, people make purchasing decisions based on only a few details, so the information displayed on the bottle is crucial. Companies must emphasise Hungarian origin and quality (e.g., with the GI logo) because both (may) add value to consumers.

To obtain a more accurate picture of Hungarian consumers, cluster analysis was applied, which identified four distinct groups (Table 8). The results provide market participants with a detailed understanding of which customer groups are the most ethnocentric. The effect of age, place of residence, level of education and income status were significant in the model, while no significant effect was detectable for gender. Even though most of the literature [8,39,68] shows that women can be considered more ethnocentric, there are many studies, including in the CEE region, that find no statistically significant relationship between ethnocentrism and gender [19,34,65,70].

Rural Ethnocentrists are characterised by being most strongly ethnocentric. Unsurprisingly, this group is characterised by containing members who typically live in a village, have at most a secondary school education, and have a below-average income. Several studies have shown a strong relationship between strong ethnocentrism and these socio-demographic factors [9,31,53,68]. Therefore, this consumer group could be targeted by emphasising the Hungarian origin of products; however, due to the conceptual confusion between pálinka and other distillates, less expensive competitors (e.g., vodka and whiskey) and limited financial capacity [86,87], they cannot be considered a target group for pálinka distilleries and distributors. According to Hungarian regulations [88], an alcoholic beverage (pálinka or 'distillate') can be made in one of three ways: by private distilling, by a contract distillery, or by a commercial distillery. Homemade (or private) 'distillate' involves individuals making pálinka from their own fruit with their own distillation equipment. Contract 'distillate' refers to when someone uses the services of a contract distillery. If a company produces distillate for commercial purposes, typically from purchased raw materials, the product can then be called pálinka. In addition, only alcoholic beverages produced in commercial distilleries qualify as GI products. Furthermore, it is important to note that Hungarian consumers consider distillate a national drink (a 'Hungaricum') [54,87], but only pálinka should be considered as such according to the legislation.

Ageing Ethnocentrists are also characterised by strong ethnocentrism; members of this group are typically over 60. The literature shows a strong relationship between (higher) age and stronger ethnocentrism [8,19,34,39,42] – a very typical characteristic of pálinka consumers is their older age [74,75]. Among these consumers, a good corporate strategy would be to emphasise the Hungarian origin of products. **Wealthy Metropolitans** are characterised by a lower level of ethnocentrism, and based on preliminary expectations, it is not surprising that the members of the group have a lower average age, higher education, and higher income status. Balabanis and his co-authors [8] concluded that higher income status is associated with stronger ethnocentrism, but this was not confirmed by our research. However, it should be emphasised that even though there is a significant difference in the strength of ethnocentrism in this group compared to the first and second clusters, their ethnocentricity is still stronger than in many other countries and for other products. In the case of pálinka – a national and GI product – consumer ethnocentrism is typically strong. The third group is the most interesting from both the corporate and marketing point of view, as they have solvent demand and emphasis on the Hungarian origins of the product, which could increase demand. Members of the **Underprivileged Metropolitans** are characterised by the lowest level of ethnocentrism and living in big cities. The relationship between these two characteristics has not been explored as deeply as most socio-demographic characteristics [53,69], but it can be stated that there is an inverse relationship between living in a big city and ethnocentrism.

The use of 'Hungarian' as a product indicator, as mentioned earlier, has become a fashionable marketing tool in Hungary, and there has been an increase in demand for national and regional foodstuffs and beverages from healthy, traceable and authentic sources [89–92]. Furthermore, in the CEE region, consumer ethnocentrism influences consumer preferences for local beverage brands [55,56]. Ethnocentrism is present among typical Hungarian pálinka consumers, but in order to target new consumer groups, it may be more favourable for companies to emphasise the presence of a brand or GI to a greater degree. The connection between GI status and stronger ethnocentrism has been confirmed by Fernández-Ferrín et al. [93]. The results indicate that consumer ethnocentrism directly affects purchase behaviour associated with GI products. Geographical Indication is not only an objective quality criterion but is associated with many other economic advantages [94]. However, from this point of view, more education and a change of attitude are

needed since while the GI label and its underlying content are known in Europe, many consumers in the CEE region are not really familiar with these markings [95,96].

5. Conclusion

Globalisation has led to the evolution of global marketing. Globalisation facilitates consumer choices and purchasing decisions about foodstuffs and beverages from different countries – from this perspective, the world has no borders. Therefore, as managerial and policy implications, knowing consumers' buying and purchasing motivations is necessary for remaining competitive in an increasingly crowded marketplace. In the case of the present research, it is important that companies that produce or distribute pálinka and producers and distributors of other substitute products (e.g., whiskey and vodka) understand consumers' behaviour and decisions in terms of ethnocentrism and socio-demographic factors. Different corporate strategies can be used to target the four groups (clusters) we have identified, and at the government level, it should be easier to determine which means or measures may be used to target these different groups and increase knowledge about pálinka and the consumption of this quality, Hungarian drink. Despite growing consumer cosmopolitism and openness to non-domestic products, consumer ethnocentrism remains a significant issue in the Hungarian alcoholic beverage market, including for pálinka. This study also confirmed that there is stronger ethnocentrism with national and GI products, which product characteristics should be emphasised by companies.

The present study analysed the relationships between CETSCALE statements/items and socio-demographic variables. The study contributes to the literature that investigates the phenomenon in different countries and across various categories of products by examining the attitudes of Hungarian pálinka consumers. However, the research has several limitations that represent opportunities for further research. First, it focused on the consumers of only one national and GI product (pálinka) and one country (Hungary). Thus, the higher values of the CETSSCALE could be due to the characteristics of the Hungarian alcohol-consuming population (e.g., the greater number of older people). Therefore, the sample is not representative of the Hungarian population; this means that the results cannot be generalised to all types of national and GI products or other countries. Our findings suggest that the situation in multiple countries and/or national and GI products should be investigated to improve the understanding of ethnocentric tendencies, especially the relationship between socio-demographic variables and consumer ethnocentrism. Measurement errors may have occurred during the survey, which can bias the results. This includes, for example, socially desirable responding, which is also common with Likert-scale statements. Furthermore, the analytical approach also involved a number of decisions, such as whether to treat Likert-type statements as ordinal or scale measurement-level variables, what type of clustering procedure to use, whether to choose the optimal number of clusters based on completely objective criteria (based only and exclusively on information criteria) or also by taking into account subjective factors (e.g., the interpretability of results). Further, whether hypothesis testing should be undertaken using a parametric or non-parametric approach.

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CRediT authorship contribution statement

Péter Czine: Writing – original draft, Software, Methodology, Investigation, Formal analysis, Conceptualization. **Péter Balogh:** Visualization, Validation, Supervision, Software, Methodology, Conceptualization. **Áron Török:** Writing – review & editing, Writing – original draft, Validation, Supervision, Resources, Project administration, Methodology, Data curation. **Zalán Márk Maró:** Writing – review & editing, Writing – original draft, Visualization, Validation, Resources, Project administration, Methodology, Investigation, Data curation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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