Olšavský, F., Štarchoň, P., Mitková, Ľ. & Dudić, B. (2022). Dynamics of the Slovak consumer behaviour in the context of ethnocentrism: Managerial implications. Agriculture and Forestry, 68 (3): 7-21. doi:10.17707/AgricultForest.68.3.01

DOI: 10.17707/AgricultForest.68.3.01

František OLŠAVSKÝ[1,*], Peter ŠTARCHOŇ[1], Ľudmila MITKOVÁ[2] and Branislav DUDIĆ[3]

DYNAMICS OF THE SLOVAK CONSUMER BEHAVIOUR IN THE CONTEXT OF ETHNOCENTRISM: MANAGERIAL IMPLICATIONS

SUMMARY

Every company tries to sell its production on the market and has to face the activities of competitors. Various concepts are used to succeed. One of them is the concept of ethnocentrism. Here, it is assumed that the consumer will prefer local production for various reasons. Various studies are devoted to creating and cultivating the consumer's relationship with local products, on which we base this article. The article presents findings from two representative surveys conducted in 2013 and 2020. The respondents were Slovak consumers and the sample was selected using stratified deliberate sampling. There were 1,030 respondents in 2013 and 1,000 in 2020. Respondents were asked the same questions, which guaranteed the comparability of results. The dynamics of consumer behaviour is measured by comparing selected demographic variables of respondents for individual years of research on the topic of consumer behaviour. We focused on three key areas: willingness to pay more for Slovak products, importance to buy Slovak products and whether the Slovak consumer is aware of support Slovak economy, when buying Slovak products.

Using the chi-square test, the relationships between demographic variables and consumer behaviour were determined. Subsequently, consumer segmentation was developed using cluster analysis in the range of tested variables for 2020. Four segments were identified and described in detail. The common denominator of the findings is the fact that Slovak consumers are generally not willing to pay extra for a local product, but a significant majority are aware that by supporting Slovak products they support the national economy. About half of the respondents consider it is important to behave ethnocentrically in their shopping behaviour. At the end of the article, the managerial implications for customer relationship management from the perspective of the government, retailers, customer associations and businesses are formulated.

Keywords: Consumer behaviour, Ethnocentrism, Marketing management, Willingness to pay, Local production.

[1,*] František Olšavský (Corresponding author: frantisek.olsavsky@fm.uniba.sk), Peter Štarchoň, Comenius University in Bratislava, Faculty of Management, Marketing Department, SLOVAKIA;

[2] Ľudmila Mitková, Comenius University in Bratislava, Faculty of Management, Department of Economics and Finance, SLOVAKIA;

[3] Branislav Dudić, Comenius University in Bratislava, Faculty of Management, Department of Quantitative Methods, SLOVAKIA.

Notes: The authors declare that they have no conflicts of interest. Authorship Form signed online.

Recieved:05/06/2022 *Accepted:29/06/2022*

INTRODUCTION

Katt and Meixner (2020) examined in their study the drivers that influence consumer willingness to pay for food, in their cases more specific organic food. From the result there can be seen that the drivers in the cluster analyses for willingness to pay are categorized into three categories related to: consumer (demography – gender, age, income, education, household, family size; values and attitudes; consumer behaviour), product (product attributes – price, quality, locality; product signaling; and product-consumer relationship) and purchasing venue-related factors (type of store). With the most positive impact on willingness to pay are linked with the consumer values and attitudes, quality, locality and labelling of the food products and shopping environment. Another study conducted by Zander and Feucht (2018) shows that additional willingness to pay in the case for European seafood was the highest for: organic and sustainable production, with higher animal welfare, local production, without discards and produced in Europe. According to the results of a survey by Kádeková *et al*. (2017) Slovak customers tend to by organic food from domestic producers and see this as support for the local economy, but the price influences the decision. The price impacts the purchase, but the Slovak consumers are willing to buy domestic dairy products the most (Ubrežiová *et al*., 2019). Géci *et al*. (2020) suggest that Slovak consumers are aware of the quality of purchased goods and if they fit their lifestyle.

Findings by Steenkamp (2019) of ethnocentrism show that is affecting the consumers' attitude towards global consumer culture, those customers are more open to experience with a negative attitude to advertising. Consumers with a high attitude toward local consumer culture are more agreeable and are more brands loyal and are more health consciousness and this type of consumer is much more dispersed among sociodemographic groups in society than the other type.

Customers concerns about the environment, health awareness and concerns about the local economy are strong predictors of attitudes towards local foods, which have been found to have a significant effect on the intention to purchase local food (Kumar and Smith, 2018). Holotová *et al*. (2020) findings suggest that Slovak consumers are eco-aware by purchasing the products.

Customers purchase local food more frequently with the link to the local support rather than to product quality and with this behaviour their support local worker and the local economy; this behaviour can be also linked to the local identity shared with the product (Memery *et al*., 2015). Intentions to buy local food are affected by perceived behavioural control and moral norms rather than by attitudes or social factors (Peral-Peral *et al.*, 2022). The local identity of a consumer is a significant predictor local food preference of the consumer (Zhang *et al*., 2022). Taborecka-Petrovicova and Gibalova (2014) stated that Slovak consumers are showing average ethnocentric tendencies and the tendency to domestic or foreign products is ambivalent. The preference towards Slovak products is stronger amongst older consumers and women prefer more than men Slovak brands (Vilčeková and Sabo, 2014). According to findings by Štarchoň

and Weberová (2016) there is no direct link between gender and preference to Slovak brands. Saffu *et al*. (2010) survey shows that for Slovak the local made products are seen as having a better quality but reconsider the price when purchasing. More recent studies by Čvirik (2018, 2019) are dealing with ethnocentrism in Slovakia from a generational and cultural point of view. The younger generation have a lower tendency towards ethnocentrism and Slovakia compared to Spain, Hungary and Italy has a below-average ethnocentrism score. Horváth *et al.* (2021) findings show that online purchase differs amongst the generations.

MATERIAL AND METHODS

Analysis of the theoretical basis of the available knowledge is the basis of this article. The concept of ethnocentrism is currently being explored from various perspectives on consumer behaviour. Several studies are currently published focusing on consumer behaviour in the context of sustainable production, not only of food but also of a textile and a wide range of consumer goods.

Data from two representative surveys, which were conducted on a sample of Slovak consumers, were used to determine consumer behaviour. Sampling reflected proportional stratified selection of respondents based on regional coverage, size of residence/city, age, gender, education and income distribution of subgroups relevant to the republic population.

Conditions of conducted researches are indicated in Table 1.

Table 1: Conditions of conducted researches in 2013 and 2020

	Research 2013	Research 2020
Sample size	1067	1000
Date of research	January/April	December
Likert scales Number	27	30
Demographic questions	5	8
Open questions	3	0
Research conducted by	Department of Marketing, Comenius University, Bratislava	Department of Marketing, Comenius University, Bratislava

Source: authors

The data were statistically evaluated in software IBM SPSS, which allows preparing graphical and numerical outputs. Results of the analysis presented in the table 2 were calculated in IBM SPSS. As the statistical method was chosen Chi-Square Test which allowed testing of factors: gender, age, education and size of residence on three selected statements. Those statements were tested in Likert scale, with 5 stages: absolutely agree, agree, do not know, disagree, and absolutely disagree. The exact p-Value is compared to the critical value of 5% and then the null hypothesis H0 on independence of statements and factor can be rejected or not rejected. The equations for calculating Chi-Square Test of Independence are presented below:

$$\chi^2 = \sum_{i=1}^{R}\sum_{j=1}^{C}\frac{(o_{ij}-e_{ij})^2}{e_{ij}} \tag{1}$$

$$e_{ij} = \frac{\text{row } i \text{ total} * \text{col } j \text{ total}}{\text{grand total}} \tag{2}$$

where o_{ij} is the observed cell count in the i^{th} row and j^{th} column of the table and e_{ij} is the expected cell count in the i^{th} row and j^{th} column of the table. Then calculated X^2 value is compared to the critical value from the X^2 distribution table with degrees of freedom df = (R – 1)(C – 1) and chosen confidence level. If the Calculated X^2 value > critical X^2 value, than could the null hypothesis be rejected.

The measured results in the Chi-Square Test and the comparison of 2013 and 2020 were the starting point for the processing of cluster analysis in the next step. IBM SPSS Software was used for the calculation. Due to the amount of processed data and the idea of the number of segments, a non-hierarchical type of cluster analysis was chosen: K-Means clustering algorithm. Given a set of observations, where each observation is a d-dimensional real vector, k-means clustering aims to partition the n observations into k sets S = {S1, S2, … , Sk} so as to minimize the within-cluster sum of squares. That aims to partition n observations into k clusters in which each observation belongs to the cluster with the nearest mean serving as a prototype of the cluster. What is expected is to minimize the within-cluster sum of squares. The equations for calculating K-Means clustering algorithm are presented below:

$$\arg\min_{\mathbf{S}} \sum_{i=1}^{k}\sum_{\mathbf{x}\in S_i}\|\mathbf{x}-\boldsymbol{\mu}_i\|^2 = \arg\min_{\mathbf{S}} \sum_{i=1}^{k}|S_i|\operatorname{Var} S_i \tag{3}$$

where μ_i is the mean of points in S_i. This is equivalent to minimizing the pairwise squared deviations of points in the same cluster:

$$\arg\min_{\mathbf{S}} \sum_{i=1}^{k}\frac{1}{|S_i|}\sum_{\mathbf{x},\mathbf{y}\in S_i}\|\mathbf{x}-\mathbf{y}\|^2 \tag{4}$$

Created clusters represent groups of individuals with the same or extremely similar consumer behaviour. This application allows us to apply cluster analysis in marketing segmentation. Created segments may be of interest to economic organizations at the market. Presented outputs are in the form offered by the software solution IBM SPSS.

RESULTS

Independence of statements towards consumer characteristics

The consumer behaviour over the period of seven years was compared. The relationship between selected demographic variables and three scale statements was tested:

1. I am willing to pay more for Slovak products.

2. Buying Slovak products is important to me.
3. By purchasing Slovak products, I support our economy.

The measured results are presented in Table 2. There is described the change in the behaviour of the Slovak consumer over the course of seven years. Highlighted values represent a factor-to-statement independence when the null hypothesis H0 of variable independence can be rejected. Therefore, the alternative hypothesis H1 is accepted, which states that there is 95% independence between the examined variables at the confidence level.

Table 2: Independence comparison of demographic characteristics from attitudes in 2013 and 2020 (measured by chi-square test)

Factor/Statement	I am willing to pay more for Slovak products. *Asymp. Sig. [2-sided]*	Buying Slovak products is important to me. *Asymp. Sig. [2-sided]*	By purchasing Slovak products, I support our economy. *Asymp. Sig. [2-sided]*
Gender	0.519 (2013) 0.332 (2020)	0.058 (2013) 0.088 (2020)	0.052 (2013) **0.029 (2020)**
Age	**0.000 (2013)** 0.485 (2020)	**0.000 (2013)** **0.000 (2020)**	**0.000 (2013)** **0.029 (2020)**
Education	**0.000 (2013)** 0.066 (2020)	**0.000 (2013)** **0.011 (2020)**	**0.000 (2013)** **0.000 (2020)**
Income	**0.028 (2013)** **0.006 (2020)**	**0.000 (2013)** 0.061 (2020)	**0.002 (2013)** 0.146 (2020)
Size of residence	0.053 (2013) 0.485 (2020)	0.092 (2013) 0.090 (2020)	0.604 (2013) **0.018 (2020)**

Source: authors

All the tests have shown that gender does not affect consumer behaviour except that „By purchasing Slovak products, I support our economy.“ as at year 2020. It has been shown that women are more aware of the economy support when buying Slovak products. As many as 91% of women said so. In 2013 generally only 36% of population is willing to pay more for Slovak products, but in 2020 it is 62.9% of population. Buying Slovak product is important for both equally man and woman in 2013 (48.8%) but significantly increased as at 2020 (75.1%) for both genders.

Age has been shown to have a significant effect on consumer behaviour during the period under review as a factor influencing consumer behaviour. The change in consumer behaviour was demonstrated only in 2020, when age ceased to affect the willingness to pay more for Slovak products. The willingness to pay extra for Slovak products has grown steadily with age. While 28.6% of respondents in the 18-29 age group were willing to pay extra, in the age group over 60 it was up to 42.5%. It is interesting that in 2020 the willingness to pay extra for Slovak products increased most significantly among the young generation under 29 (61.1%) and approached the average of the Slovak population (63%). The importance of purchasing Slovak products was the lowest

in 2013 in the age category of 14-17 years (14.3%) and grew continuously up to the age category of 50-59 years (69.4%). In 2020, the positive attitude of young people increased significantly to 61.1% and also increased in the category of 50-59 year-old (81.6%).

Education as a factor in consumer behaviour is significantly important. Only in 2020 did the survey show that education does not affect the consumer's willingness to pay extra for Slovak products. The results for 2013 showed that with increasing education, the willingness to pay extra for Slovak products also increases. Participants with basic education were willing to pay extra to a lesser extent (30.3%) compared to university graduates (44.9%). The situation was similar in the 2020 survey: respondents with basic education showed this willingness to a lesser extent (59.8%) than with university education (72.2%), but the distribution of responses did not show a statistically significant difference in behaviour by education. On the contrary, education is an important factor in the context of the importance of purchasing Slovak products. In 2013, this is important for 25% of the population among respondents with basic education, but up to 57.8% for university graduates. In 2020, the importance increased for the population with basic education to 61% and for university graduates to 82.8%. Education has proven to be an important factor in behaviour even in the case of awareness of support for the national economy. In 2013, this is important for 35.5% of respondents with basic education and 70.3% for university graduates. In 2020, this awareness increased significantly among people with basic education (76.8%), but also among university graduates (94.1%).

Income plays an important role in the willingness to pay extra for Slovak products for both research periods. Given the importance of supporting the national economy and the importance of purchasing Slovak products, income is a statistically significant factor only for 2013. In 2020, income is no longer a statistically significant factor. In 2013, respondents in the income group were willing to pay EUR 1661-2320 (45%) and at least EUR 501-660 (29%) for Slovak products, but it cannot be said unequivocally that with higher incomes the willingness to increase at the same time. In 2020, the willingness to pay in the income category EUR 1,201-1500 (76.6%) was the most significant, the lowest in the income group up to EUR 400 (52.9%). The importance of the purchase of Slovak products was the lowest in 2013 in the income category above 2661 EUR (29.6%) and the highest in the group with income 1991-2320 EUR (66.7%). In 2020, the importance of purchasing Slovak products according to age categories was distributed evenly - mostly in the group with an income of 1201-1500 EUR (79.4%) and the least in the group over 2501 EUR (66%). Awareness of the importance of purchasing Slovak products for the state economy in 2013 was the highest in the income group 1661-1990 EUR (75%) and the lowest in the group over 2661 EUR (50%). In the year, the highest value was measured in groups with income over 1501 EUR (92%) and the lowest in the group 801-1200 EUR (86.3%).

The last variable examined was the size of the residence. It was found that the size of the residence does not affect the consumer attitudes examined over the years. An exception is the significant impact of the size of residence on the awareness of the importance of purchasing Slovak products for the economy in 2020. This is mainly realized by respondents living in cities with 20-100 thousand inhabitants (94%) and the least inhabitants in settlements up to 5 thousand inhabitants (85.8%). In 2013, the lowest awareness of economic support was in settlements over 100 thousand inhabitants (53.2%) and the highest in settlements with the population of 10-20 thousand (64.7%). The importance of the purchase of Slovak products in 2013 was among the inhabitants living in settlements with population over 100 thousand the lowest (42%) and in settlements with population of 10-20 thousand the highest (51.3%). In 2020, the most important to buy Slovak products was measured for residents living in settlements of 5-20 thousand inhabitants (82.6%) and the least important in settlements over 100 thousand inhabitants (69.2%). The willingness to pay extra for Slovak products in 2013 was the highest among respondents from the settlements with 5-10 thousand inhabitants (41.1%) and the lowest at settlements with population over 100 thousand (25.5%). In 2020, the willingness was the highest in settlements with 5-20 thousand (65.1%) and the lowest in settlements over 100 thousand (59.2%).

Table 3: Dynamics of changing the attitudes of the Slovak consumers in 2013 - 2020

I am willing to pay more for Slovak products. *Positive attitude [% of population]*	Buying Slovak products is important to me. *Positive attitude [% of population]*	By purchasing Slovak products, I support our economy. *Positive attitude [% of population]*
36.0 (2013) 62.9 (2020)	48.8 (2013) 75.1 (2020)	56.8 (2013) 88.8 (2020)

Source: authors

Segmentation of Slovak population according to attitudes towards Slovak products

The results of the chi-square test revealed to us the potential for relationships between demographic factors and the tendency to agree with the three selected claims. Factors „gender“ and „size of residence“ demonstrated a low intensity of relationship to the statements tested. On the other hand, „education“ and „age“ were confirmed as significant variables in relation to the statements tested. „Income“ is quite a strong factor, but only for 2014, less so for the variables in 2020.

In the next step, the potential of these factors as segmentation variables as at year 2020 were tested. Due to the size of the data set (1000 respondents and 8 variables), was chosen the K-Means Clustering technique. The aim was to identify those segments that can be considered relevant for exposure to marketing

incentives in the form of a marketing mix and customer relationships programs. The test results are represented in Table 4. The final number of segments reached four. Each cluster refers to a collection of data points aggregated together because of certain similarities. If the data are similar in the whole dataset, the similarities will occur also in the characteristics of clusters. Defined four clusters means the number of centroids which are created. Centroid represents the imaginary location or characteristic of the center of each cluster. Every case (respondent) in dataset is allocated to each of the clusters through reducing the in-cluster sum of squares. K-Means algorithm in this way identifies *k* number of centroids and distributes each case of data to the nearest cluster. The idea is to keep the centroids as small as possible.

Table 4: Centroids of clusters identified 2020

Factor	Centroids of Cluster			
	1	2	3	4
Gender	1.63	1.43	1.44	1.48
Age	5.69	3.88	3.58	3.06
How many inhabitants/city/reside the most?	2.41	2.03	2.22	1.57
What is your highest educational attainment?	2.81	2.84	2.72	2.22
What is your household`s approximately net monthly income?	2.7	4.62	7.22	2.36
I am willing to pay more for Slovak products.	2.44	1.81	2.58	2.58
Buying Slovak products is important to me.	1.98	1.67	2.47	2.42
By purchasing Slovak products, I support our economy.	1.55	1.35	1.70	1.97

Source: authors (IBM SPSS software)

The main purpose of cluster analysis is to include in the segmentation process only those variables that have the potential to contribute to the differentiation of the resulting segments. For this purpose, cluster analysis is linked to the analysis of variance. The value *Sig.* indicates the result in the Tab. 5.

Table 5: Analysis of variance for K-Means Cluster Analysis

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
Gender	2.193	3	.244	996	8.975	.000
Age	389.753	3	.976	996	399.434	.000
How many inhabitants/city/reside the most?	38.380	3	1.076	996	35.669	.000
What is your highest educational attainment?	24.605	3	.667	996	36.894	.000
What is your household's approximately net monthly income?	997.610	3	.783	996	1273.718	.000
I am willing to pay more for Slovak products.	30.631	3	.906	996	33.807	.000
Buying Slovak products is important to me.	32.493	3	.874	996	37.171	.000
By purchasing Slovak products, I support our economy.	18.826	3	.724	996	25.985	.000

Source: authors (IBM SPSS software)

It is clear from the results that each of the included variables has a high potential to contribute to the heterogeneity of individual segments. The critical variable 0.05 is higher than measured in each of the compared factors and reaches 0.00 for each factor.

The result of the cluster analysis is the division of respondents into 4 segments. Centroids of clusters testify to their characteristics. The main purpose of cluster analysis is to include in the segmentation process only those variables that have the potential to contribute to the differentiation of individual segments. Centroids offer the information about the characteristics of each segment for the monitored variables.

The first segment consists of a slight predominance of women over the age of 50. They live mainly in settlements with 20-100 thousand residents; have a complete secondary education and a relatively low disposable monthly household income of EUR 800-1200. They are not identified with the willingness to pay extra for Slovak products, it is important for them to buy Slovak products and they identify with the claim that by purchasing Slovak products they will support the Slovak economy. Briefly, they can be characterized as older, living in larger cities conscious but unwilling to pay extra from their low income.

The second segment consists of both genders with a slight predominance of men. It is an age category of 40-49 years living in smaller cities with 5-20 thousand inhabitants; they mostly have a complete secondary education. They have a relatively higher income in the range of 1200-2000 EUR. This segment is most willing to pay extra for Slovak products, most perceives the importance of buying Slovak products and considers the purchase of Slovak products to be a very strong support of the Slovak economy. These are therefore people with a higher income and a willingness to pay extra for Slovak products and will be fully aware of their actions in the context of the purchase of Slovak products.

The third segment consists of both genders with a slight predominance of men, of age 40-49 years and lives mainly in smaller cities with 5 to 20 thousand inhabitants; they have mostly a complete secondary education. This segment has the largest representation of university-educated respondents. This is the segment with the highest income over EUR 2,501 per month. They are not willing to pay extra for Slovak products, they do not think it is important to buy Slovak products, but they consider the purchase of Slovak products to support the Slovak economy. They are exceptional in their high income but they are reluctant to pay extra for Slovak products, they are not interested in Slovak products, but they are aware that their support helps the Slovak economy.

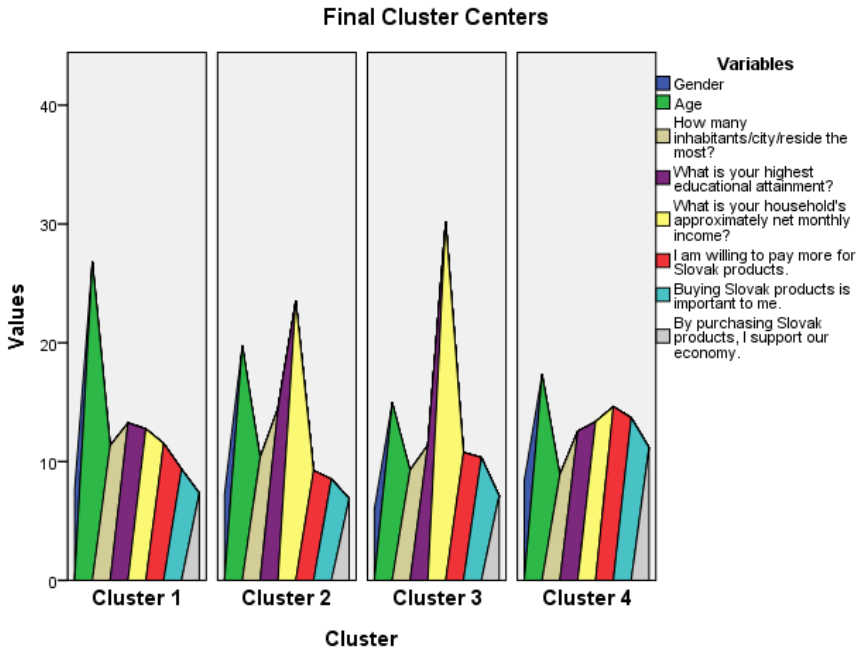
The fourth segment consists of a balanced share of both genders. It is the youngest segment of 30-39 years living mainly in villages and small towns up to 20 thousand populations. They have the lowest secondary education without a high school diploma and have the lowest income from 400 to 800 EUR per month. They are not willing to pay extra for Slovak products, it is not important for them to buy Slovak products, but they consider the purchase of Slovak products to support the Slovak economy. They are therefore young people with low incomes living in small towns and villages, with a low willingness to pay extra for Slovak products and with a low awareness of Slovak products.

Table 6: Distribution of respondents and their characteristics

CLUSTER 1	CLUSTER 2	CLUSTER 3	CLUSTER 4
310 respondents **31%** of population	**222** respondents **22%** of population	**156** respondents **15.6%** of population	**312** respondents **31.2%** of population
older people living in larger cities are aware but unwilling to pay extra from their low income	people with higher income and willingness to pay extra for Slovak products and are fully aware of their actions in the context of buying Slovak products	high income, but they are reluctant to pay extra for Slovak products, they are not interested in Slovak products, but they are aware that their support helps the Slovak economy	young people with low income living in small towns and in the village and low willingness to pay extra and with low awareness of Slovak products
Elderly conscious but unwilling to pay extra	Conscious with above - average income and willingness to pay extra	Rich following their interests	Young with low economic force and low awareness

Source: authors

The distribution of respondents into individual segments is demonstrated in Graph 1. The graph faithfully shows the distribution of respondents according to the answer coding system. The visualization reveals, for example, a stronger representation of university-educated respondents in segment 3 and an exceptionally high income in this segment. Similarly, the representation of older respondents in segment 1.



Graph 1: Visualization of cluster centroids 2020

Source: authors (IBM SPSS software)

DISCUSSION AND MANAGERIAL IMPLICATIONS

As the theoretical background showed Katt and Meixner (2020), the willingness to pay is in special product categories with value added (example of organic food). Authors applied the cluster analyses and the most positive impact on willingness to pay are linked with the consumer values, quality, labelling and locality. Our research was cowered general Slovak products with the result, that income, age and their residence could be crucial for willingness to pay more for Slovak product and play important role when it comes to awareness about the role of Slovak products and support of Slovak economy. Other factors such as gender, education had a significant importance for the cluster analysis as well and allowed us to identify 4 consumers' segments.

Interesting is the conclusion by Ubrežiová *et al.* (2019) and Kádeková *et al.* (2017) when customers tend to buy local products for the support of local economy but the price and disposable income plays important role. In context of our segment the situation seems to be similar in case of income. Segment 4 of young people with limited income is also limited in willingness to pay extra for Slovak production and do not perceive even as extremely important to notice Slovak products among the other from abroad. Segment 2 represents relatively strong purchasing power consumers with extremely high awareness and willingness to pay for Slovak products. Segment 3 looks lucrative in the purchasing power, but the topic of support of Slovak production do not consider essential at all.

The potential of support local production idea is still vivid. As the study by Memery *et al.* (2015) shows customers purchase local food more frequently with the link to the local support rather than to product quality and with this behaviour their support local worker and the local economy. This idea is sufficiently strong in each of the identified segments. Even in the low-income segment 4 of young consumers or high-income segment 3 of extremely rich consumers. Everybody They are aware of the support of the Slovak economy by buying Slovak products. A different situation is already in the evaluation of the importance of buying the Slovak products themselves. The segment 3 of the extremely rich and segment 4 of the poor does not consider this subject necessary. They are not interested in the origin of the product that it purchases. For both segments could be applied the result of the study by Taborecka-Petrovicova and Gibalova (2014) about average ethnocentric tendencies and ambivalent tendency to country of origin as a factor in consumer behaviour. We came to the same finding as *Vilčeková and Sabo* (2014) that older consumers and women prefer more than men Slovak brands as at characteristics of Segment 1. Similar results are recorded to finding by *Štarchoň and Weberová* (2016) that there is no direct link between gender and preference to Slovak brands. Here we can add that there is no relationship with willingness to pay extra for Slovak products. And woman are more sensitive to the support of Slovak economy by buying of Slovak products compared to man. Willingness to pay extra money for Slovak products is limited as the outcomes shows. Findings are similar to study by Saffu *et al.* (2010). When comparing the

results of clustering with the results presented by Horváth *et al.* (2021) we can state the compatible statement about the lower tendency towards ethnocentrism of younger generation in Slovakia. When comparing with other segments, young generation is not willing to pay more for Slovak products and the ethnocentrism (importance to buy Slovak products) is low when comparing with other segments. The only positive attitude of this generation is to the statement about support of Slovak economy by buying of Slovak products.

The practical implications for managerial purposes are connected with two main findings.

First is the dynamics of attitudes around the population in Slovakia. Comparison of consumer behaviour in seven-years period (2013 – 2020) showed that the willingness to pay more for Slovak products increased from 36% to 62.9% and almost doubled. Similarly the question of ethnocentrism about the importance of buying Slovak products showed the prevalence of positive attitudes – increased from 48.8% to 75.1%. And the last statement about the awareness of Slovak economy support when buying Slovak products increased dramatically too: from 56.8% in 2013 to 88.8% in 2020. Slovak consumer is aware and is informed how the behaviour of individual people could influence the well-being of the Slovak companies and the whole society. But this represents much more the passive behaviour. The other one – the active support represents mostly the willingness to buy and pay and of course due to the several reasons this ability counts less numerous part of population. We can state, that the change of awareness of Slovak consumers means the ability to lead them and influence towards the topics of ethnocentrism and support of local/national product consumption. The absolutely inevitable role plays activities of government, retail chains, consumer associations and individual companies. Slovak government tries to support the Slovak producers by several activities: legislation support, presence at the foreign exhibitions, but the common market of European Union is the supreme thesis, which means the principle of equal presence and chance to sell not only for Slovak but also the foreign producers at the Slovak market must be ensured. The "buy the local/national campaigns" dedicated to country of origin effect financed from public budget is therefore relatively limited. But government can influence education of young generation. And as the results showed, the youngest population is much less aware its strength towards support of national/local production – the case of identified segment 4. The topic is still important in context of fulfilment the level of self-sufficiency. Now in connection with Russian-Ukrainian crisis it looks extremely important not only for Slovakia but European Union as a whole economic block.

On the other hand, current activities of retail chains in Slovakia, represents the case how most significant retailers tries to differ in perception of customers by using of country of origin issue. Campaigns of the strongest retailers such as Lidl Slovenská Republika, v. o. s., Kaufland Slovensko, v. o. s. or Billa, s. r. o. and another retailer emphasize in their communications the strong support for Slovak products. This means the understanding of Slovak consumer behaviour

and the significance of this topic for marketing communication. Some of the retailers communicate the percentage of domestic assortment in the goods portfolio. Consumer organizations will also be activated. Due to the issues connected with import of low-quality products from abroad, and not only from Non-European regions but from the neighboring countries, the importance of country-of-origin effect gained on the importance. These associations are mostly non-government organizations and financed mostly from gifts and contributions therefore can play an important role in education of consumers. They are mainly organizations aimed at supporting of the local production of particular region.

In case of Slovak companies, it seems positive that the vast majority of the Slovak population is aware of the connection: business prosperity vs. prosperity of the whole Slovak society. But only some consumers are willing to pay a higher price for Slovak production for various reasons. We recommend focusing on the added value that the company offers to the customer. Appeal alone is not enough: "product made in Slovakia" come and support me by buying. Only 22% of the population does not need additional incentives (Segment 2). They have an income to support Slovak production and are doing so now. We identified another segment here (Segment 3), which makes up 15.6% of the population, has above-average disposable income and does not behave patriotically. They pursue their own goals and buy what is best for them, regardless of the origin of the product. And this is a challenge for Slovak companies. How to identify what is valuable for this high-income category enough to buy a Slovak product. We often encounter the claim that Slovak products are expensive compared to those produced globally. It may not be the price, but perhaps the quality and level of services provided, where flexibility and the level of consumer knowledge or relationship can be an advantage for a national/local producer. According to our research we realize that the more educated consumer, middle-aged and older, with a higher income and living in smaller cities (5-20 thousand inhabitants) is more sensitive on issue of ethnocentrism, but this is a general view of the Slovak consumer. Every business should know its customer and should identify their customer groups and assign them according to certain business criteria.

Criteria which are relevant to the type of business or industry: Segment 1 (31% of population) consists of older people living in big cities. They are educated and sufficiently aware of the need to support the Slovak products, but they are not willing to pay a higher price. Their income is a limiting factor and living in larger cities requires higher expenses. It would be appropriate for these consumers to present economic versions of the products. As they live in big cities, there should be no problem in ensuring the distribution of products in existing distribution chains. The problem may be the insufficient production required by the distribution chains. However, some distribution chains also cooperate with small producers and place their production only in selected plants in the region. They support regional products. In the case of Segment 4, we can talk mainly about the young generation (31.2% of population). They do not feel important to support local production, although they live in small towns and

villages that could prosper thanks to local producers. Therefore, they do not even have enough income to buy quality products. It is also a challenge for the government and perhaps for the retailers themselves to support the local economy of micro-regions with the potential to kick-start production of traditional products. Increasing awareness and income in this group could certainly change their consumer behaviour.

CONCLUSION

The behaviour of the Slovak consumer has been changing dynamically over the last 7 years. This dynamic could be used in the context of creating sales support for national resp. local products. It is a proven way to help the national resp. local economy and ensure a safe source of products (not just food) for the needs of the state. And, of course, achieve organization goals in case of companies both manufacturing, non-manufacturing but also retailers. Identified consumer segments show different behaviour to support Slovak products. It is possible to approach the service of each of the identified segments individually and to appeal to them sensitive topics in the context of ethnocentrism. Repeated data collection on consumer behaviour will take place in 2022. We expect quite significant change in behaviour under the influence of the pandemic and changing consumer behaviour during the Russian-Ukrainian war conflict. Rising inflation, shortages of some commodities and uncertainty will certainly affect consumer behaviour.

ACKNOWLEDGEMENTS

This paper is an output of the scientific project VEGA (Scientific Grant Agency by Ministry of Education, Science, Research and Sport of the Slovak Republic) 1/0737/20 „Consumer literacy and intergenerational changes in consumer preferences when purchasing Slovak products“. The aim of the scientific project is to identify intergenerational differences and subsequently define and categorize individual consumer segments in the market by the analysis of consumer literacy and Slovak consumers' attitude towards purchasing the Slovak products. The research will focus on determinants of consumer behaviour and their prioritization in process of products selection, emphasizing the intergenerational differences.

REFERENCES

Čvirik, M. (2018). Spotrebiteľský etnocentrizmus v generačnom kontexte. Studia commercialia Bratislavensia, 11(39), 5–14.

Čvirik, M. (2019). Existuje prepojenie medzi spotrebiteľským etnocentrizmom a kultúrnymi dimenziami? V Ekonomický a finanční výzkum prezentace výsledků doktorandů (16–26). Vysoká škola finanční a správní, a.s. https://www.vsfs.cz/prilohy/konference/kd_2019_efv_sbornik.pdf#page=18

Géci, A., Krivošíková, A., Nagyová, Ľ., & Cagáňová, D. (2020). The influence of lifestyle on consumer behaviour and decision making in research aimed at protein bars. Potravinarstvo Slovak Journal of Food Sciences, 14, 318–327.

Holotová, M., Nagyová, L., & Holota, T. (2020). The impact of environmental responsibility on changing consumer behaviour–sustainable market in Slovakia. Economics & Sociology, 13(3), 84–96. https://doi.org/doi:10.14254/2071-789X.2020/13-3/6

Horváth, J., Bačík, R., & Fedorko, R. (2021). Analytical view of the consumer behaviour of millennials. Journal of Management and Business: Research and Practice, 13(1), 26–34.

IBM Statistics: K-Means Cluster Analysis 2021. [online]. [cit. 16.5.2022]. Available at: <https://www.ibm.com/docs/en/spss-statistics/28.0.0?topic=features-k-means-cluster-analysis>

Kádeková, Z., Récky, R., Nagyová, Ľ., Košičiarová, I., & Holienčinová, M. (2017). Consumers´ purchasing preferences towards organic food in Slovakia. Potravinarstvo Slovak Journal of Food Sciences, 11(1), 731–738. https://doi.org/10.5219/846

Katt, F., & Meixner, O. (2020). A systematic review of drivers influencing consumer willingness to pay for organic food. Trends in Food Science & Technology, 100, 374–388. https://doi.org/10.1016/j.tifs.2020.04.029

Kumar, A., & Smith, S. (2018). Understanding Local Food Consumers: Theory of Planned Behaviour and Segmentation Approach. Journal of Food Products Marketing, 24(2), 196–215. https://doi.org/10.1080/10454446.2017.1266553

Memery, J., Angell, R., Megicks, P., & Lindgreen, A. (2015). Unpicking motives to purchase locally-produced food: Analysis of direct and moderation effects. European Journal of Marketing, 49(7/8), 1207–1233.

Peral-Peral, B., Arenas Gaitán, J., & Reina-Arroyo, J. (2022). Buying local food is not a question of attitude: An analysis of benefits and limitations. Spanish Journal of Marketing - ESIC, 49(7/8), 1207–1233. https://doi.org/10.1108/SJME-09-2021-0181

Saffu, K., Walker, J. H., & Mazurek, M. (2010). The role of consumer ethnocentrism in a buy national campaign in a transitioning country: Some evidence from Slovakia. International Journal of Emerging Markets, 5(2), 203–226. https://doi.org/10.1108/17468801011031829

Steenkamp, J.-B. E. M. (2019). Global Versus Local Consumer Culture: Theory, Measurement, and Future Research Directions. Journal of International Marketing, 27(1), 1–19. https://doi.org/10.1177/1069031X18811289

SPSS Tutorials: Chi-Square Test of Independence, Kent State University 2022. [online]. [cit. 16.5.2022]. Available at: <https://libguides.library.kent.edu/SPSS>

Štarchoň, P., & Weberová, D. (2016). Attitudes of Czech and Slovak consumers towards brands from the point of view of gender affiliation. Hradec Economic Days, 6, 1095–1103. https://uni.uhk.cz/hed/site/assets/files/1047/proceedings_2016_1.pdf

Taborecka-Petrovicova, J., & Gibalova, M. (2014). Measurement of Consumer Ethnocentrism of Slovak Consumers. International Review of Management and Marketing, 4(4), 247–258.

Ubrežiová, I., Kráľová, T., & Kozáková, J. (2019). Factors influencing interest of Slovak consumers' in organic dairy products. Potravinarstvo Slovak Journal of Food Sciences, 13(1), 538–546. https://doi.org/10.5219/1137

Vilčeková, L., & Sabo, M. (2014). Nákupné správanie slovenských spotrebiteľov Nákupné správanie slovenských spotrebiteľov naprieč vybranými demografickými ukazovateľmi. Trendy v podnikáni, 1(4), 66–72.

Zander, K., & Feucht, Y. (2018). Consumers' Willingness to Pay for Sustainable Seafood Made in Europe. Journal of International Food & Agribusiness Marketing, 30(3), 251–275. https://doi.org/10.1080/08974438.2017.1413611

Zhang, T., Chen, J., & Grunert, K. G. (2022). Impact of consumer global–local identity on attitude towards and intention to buy local foods. Food Quality and Preference, 96, 104428. https://doi.org/10.1016/j.foodqual.2021.104428