

The role of country of origin in the milk purchase

Úloha krajiny pôvodu pri nákupe mlieka

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ABSTRACT

Country of origin is becoming one of the critical elements in making decisions among consumers when purchasing products due to the increasing influence of globalisation, internationalisation and market saturation. The milk industry faces several problems, including a decrease in milk businesses, an increase in milk imports and deepening losses of primary milk producers. Country of origin is considered one of the effective competitive sources of differentiation. The main aim of this study is to identify the role of country of origin in the purchase of milk by consumers from the regions of Central Slovakia using finding preferences of Slovak and foreign brands of milk, knowing brands of purchased milk, and finally examining dependencies between the country of origin and selected demographic variables. The survey results showed a high preference for purchasing Slovak milk brands, and more than half of consumers considered the country of origin an important or very important criterion for purchasing milk. From the point of view of dependencies, age showed to be correlated to the factor of the country of origin, income was found to be statistically significant in determining preferences of Slovak, and foreign brands of milk, and gender, age, education, income and place of living were detected to be good predictors of the demand for individual brands of milk. These findings act as a valuable basis for the creation of value and marketing communication strategies by Slovak milk producers.

Keywords: consumer, consumer behaviour, country of origin, milk, regions of central Slovakia

ABSTRAKT

Krajina pôvodu sa stáva jedným z kritických prvkov pri rozhodovaní spotrebiteľov pri nákupe produktov v dôsledku rastúceho vplyvu globalizácie, internacionalizácie a nasýtenia trhu. Mliekarenský priemysel čelí viacerým problémom, vrátane úbytku mliekarenských podnikov, nárastu dovozu mlieka a prehlbujúcich sa strát prvovýrobcov mlieka. Krajina pôvodu sa považuje za jeden z účinných konkurenčných zdrojov diferenciácie. Hlavným cieľom tohto príspevku je zistiť ako vnímajú úlohu krajiny pôvodu pri nákupe mlieka spotrebiteľia z regiónov stredného Slovenska prostredníctvom hľadania preferencií slovenských a zahraničných značiek mlieka, poznať značky nakupovaného mlieka a nakoniec cieľom príspevku je zistiť závislosti medzi krajinou pôvodu a vybranými demografickými premennými. Výsledky realizovaného prieskumu naznačujú veľmi vysokú preferenciu nákupu slovenských značiek mlieka a viac ako polovica spotrebiteľov považovala krajinu pôvodu za dôležité alebo veľmi dôležité kritérium pri nákupe mlieka. Z hľadiska závislostí vek koreloval s faktorom krajiny pôvodu, príjem bol štatisticky významný pri určovaní preferencií slovenských a zahraničných značiek mlieka, pohlavie, vek, vzdelanie, príjem a miesto bydliska predstavovali významné ukazovatele dopytu po jednotlivých značkách mlieka. Tieto zistenia sú cenným podkladom pre tvorbu hodnotovej a marketingovej komunikačnej stratégie slovenských producentov mlieka.

Kľúčové slová: spotrebiteľia, spotrebiteľské správanie, krajina pôvodu, regióny stredného Slovenska, mlieko

INTRODUCTION

Globalisation creates a space for internationalisation, respectively, the expansion of a business scope beyond the country of their operation and the creation of a broader offer of products for consumers on a marketplace. Consequently, today's consumers are flooded with many home and foreign products (Novotny and Duspiva, 2014), which makes the role of country-of-origin even more significant and has become a vital part of consumer's purchase decision-making process (Le et al., 2017). Over the last few years, the country of origin has been considered a crucial attribute since it influences the perceived overall quality of the product. In addition, country of origin can be used to demonstrate loyalty and allegiance to the country (Kilders et al., 2020).

The country of origin is a significant determinant that is examined in marketing. Country of origin refers to a mental network of cognitive and affective associations connected to a specific country (Schultz and Jain, 2015) on the basis of its image, impression, picture, stereotype or reputation (Hanaysha and Hilman, 2015) that results in positive or negative perception of a product (Yunus and Rashid, 2016). Moreover, according to Carneiro and Faria (2016) and El Banna et al. (2018), the country of origin is an important indicator related to the quality of a product. Several studies dealt with the country of origin and confirmed the fact that the country of origin influences consumers' food choices (Newman et al., 2014, Thøgersen et al., 2017). There exists a positive and mutual relationship between a country's image and its product image, which means that the more consumers hold positive predispositions toward a country, the more positively they evaluate the country's product; and conversely, the positive experience of consumers with a product may be reflected in better perception of the country of origin (Sokolowska et al., 2020). Country image refers to a particular image, picture or representation that consumers hold in their minds about a specific country (Wegapitiya and Dissanayake, 2018). Consumers create an image of a country based on their previous personal (cognitive and affective) experiences,

stereotypes, general (historical, political, economic, social and traditional) characteristics and information from acquaintances (Rezvani et al., 2012). The perception of a country's image consumers develops while considering a set of four dimensions or determinants, specifically innovativeness (superior technology), design (style, elegance and balance), prestige (exclusiveness and status of national brands) and workmanship (reliability, durability and quality of national manufacturers) (Godey et al., 2012).

The phenomenon of evaluating products based on judging the country of origin is called the country of origin effect" (Chrysochoidis et al., 2007). The country of origin effect differs from country to country and from product to product. Research shows that consumers prefer products from their home countries rather than foreign ones (Eicaite, 2016); the country-of-origin effect is stronger in products from developed countries, influencing consumers more positively than products from developing countries (Eng et al., 2016). According to Chrysochoidis et al. (2007), "the cause of the appearance of the country of origin effect can be found in consumer ethnocentrism". Ethnocentrism represents a sociological concept (Bizumic, 2014) that refers to a belief or perception of consumers about the inappropriateness, or indeed immorality, of purchasing foreign-made products due to the (moral) reason for its negative impact on the national economy and employment (Lesakova, 2016). According to Durço et al. (2021), consumers with a high level of ethnocentrism prefer and always purchase products made in their own country. Ethnocentrism is manifested in the behaviour of consumers in three ways. In the first case, consumers pay increased attention to the country of origin cue when purchasing products (Cumberland et al., 2010).

In the second case, consumers rate products originating from their home country more positively and favourably than those from abroad (Pentz et al., 2014). In the final case, consumers are willing to pay premium prices for products produced in their home country (Smaiziene and Vaitkiene, 2014). The term consumer ethnocentrism should not be interchanged with the term

consumer patriotism. Both terms coincide in that they express an attachment or loyalty to products made in the home country. However, the main difference lies in that while an ethnocentric consumer (to a certain degree) underestimates foreign production, a patriotic consumer does not feel any hostility towards products from abroad (Vesela and Zich, 2015).

Country of origin represents one of the extrinsic factors or (information) cues consumers consider when evaluating a product and deciding whether to purchase it (Hu and Baldin, 2018). Many researchers (Eng et al., 2016, Lin and Chen, 2006) agree that the country of origin represents a signal of product quality. The research of Kleinova and Neomani (2010) found that the preference for domestic products, the country as an indicator of quality and support of domestic economy belonged to the group of top reasons behind observing the country of origin when purchasing food (especially what refers to products like pastry, meat and dairy products) by Slovak consumers. Preference for purchasing products from home products can be explained using relations (dependencies) between the country of origin and various demographic variables (Javed and Hasnu, 2013). Research by Kleinova and Neomani (2010) on examining the effect of country of origin on purchasing food by Slovak consumers (determined by selected demographic variables) showed that the country of origin influences those consumers who are employed, have from 35 to 64 years and possess a higher level of education.

In a globalised market where milk products are sourced from various regions, the country of origin is a critical factor influencing consumer decisions and perceptions. The milk industry holds importance in Slovakia, as dairy products are an integral part of the country's food culture and economy. Slovakia has a long-standing tradition of dairy farming, and milk production plays a significant role in its agricultural sector. Many studies focus on consumer behaviour and country of origin in the dairy market.

However, there is a lack of studies that deal with the impact of the country of origin on the milk market in Slovakia. The present work is focused on the impact

of country of origin on consumers. Moreover, this study reveals the preferences of respondents for Slovak and foreign milk brands and preferences for brands when purchasing. Finally, the study is focused on dependencies between the country of origin and chosen demographic variables (gender, age, education, income, and place of residence). A questionnaire survey was used for data collection. The questionnaire survey was collected by 155 individuals from Central Slovakia, but after applying inclusive criteria, the final research consisted of 112 individuals. The study is divided into several parts. The introduction discusses the current situation in the milk market and defines important terms related to the country of origin. The following section focused on the methodology. The subsequent part presents the findings and discussion. The concluding remarks are presented in the final section.

MATERIALS AND METHODS

The main aim of this paper is to identify the role of the country of origin in the purchase of milk by consumers. The milk and dairy industry belongs to not only one of the historically oldest but also one of the most essential industries in Slovakia (Kurajdova, Taborecka-Petrovicova, 2017). The highest share of Slovak products on the shelves was in the categories of milk (73%), water and mineral water (64%), wine, beer and dairy products (52%) in 2022. According to the retailmagazin.sk (2022), the share of Slovak products in 2022 reached the level of 42.3%, which is an annual increase of 0.9 percentage points compared to 2021. Long-term measurements since 2011 show that the share of Slovak products decreased until 2017 (37.2%), and in 2018 it gradually started to grow again. The import of milk and milk products to Slovakia in 2021 increased by 2.1% compared to 2020. Moreover, in 2021, the export of milk and milk products from the Slovak Republic increased by 0.7% compared to 2020. The average consumption of milk and milk products per inhabitant of the Slovak Republic was 190.4 kg in 2021. In 2000, the average consumption of milk and milk products per inhabitant of the Slovak Republic was 160.2 kg. It is evident that the consumption of milk and

milk products increased by 18.85% compared to 2000 (Research Institute of Agricultural and Food Economics, 2021). Concerning all of this, we focused on studying the influence of country of origin on milk consumers, and within partial aims, we focused on finding: (1) preferences of Slovak and foreign brands of milk, (2) brands of purchased milk, and (3) dependencies between the country of origin and selected demographic variables (gender, age, education, income and place of living).

To gain primary data, an online questionnaire survey was applied. The research sample consisted of respondents from Central Slovakia, specifically the region of Banská Bystrica and the region of Žilina. The age minimum of 18 years was settled as the primary criterion for selecting respondents. The representativeness of the research sample was verified using the Chi-Square Test while considering the criterion of gender and age. Based on the results (Table 1), it could be concluded that the research sample is representative concerning both settled criteria (*P*-value for gender accounted for 0.993 and for age accounted for 0.997).

Following the main and partial aims of the paper, hypotheses were formulated:

- H1: More than half of consumers from Central Slovakia prefer purchasing Slovak milk brands.
- H2: There exists a dependency between selected personal factor variables and brands of milk purchased by consumers from Central Slovakia.

- H3: There exists dependency between selected personal factor variables and country of origin as a factor influencing the purchase of milk by consumers from Central Slovakia.

The questionnaire survey was conducted in 2021. The questionnaire survey was collected by 155 individuals from Central Slovakia. The majority of respondents (72%) belonged to purchasers of milk. After applying selective criteria – milk purchaser- the final research sample contains 112 respondents. Based on the data, it can be concluded that women represented more than 52% of participants. In terms of education, 55% of respondents had a university education. Regarding income, 46% of respondents have a disposable monthly income of 551 to 1 110 €. Finally, regarding the place of living, 57% of respondents said they lived in a city, and the remaining 43% lived in a village. Data processing was provided by applying the statistical software SPSS using the Binomial Test, Spearman Correlation Test and Fisher Exact Test. The evaluation of hypotheses was provided on the 10% level of significance.

RESULTS

According to presented data, 59% of Slovak consumers purchase products from domestic food producers, and 69% consider Slovak origin when purchasing milk (Jarossova, 2015). Based on this, we assumed that more than half of consumers from the region of Central Slovakia purchase Slovak brands of milk. In the questionnaire, we

Table 1. Results of representativeness of the research sample

Test statistics		Gender	Age
Chi-square		0.000	0.007
df		1	2
Asymptotic significance		0.993	0.997
Monte Carlo significance	Sig.	1.000	1.000
	99% confidence Interval		
	Lower bound	1.000	1.000
	Upper bound	1.000	1.000

Source: own elaboration based on data from the questionnaire survey

asked respondents a question on finding what brands of milk, Slovak or foreign ones, they purchase most frequently. According to the results, 110 individuals (98%) claimed that they purchased milk, and only 2 respondents did not purchase milk. The Binomial Test was applied to verify the preferences of Slovak and foreign milk brands by respondents from Central Slovakia. According to the results introduced in Table 2, it could be seen that the majority of Slovak consumers preferred the purchase of Slovak brands of milk. For this reason, we accept hypothesis H1.

Besides preferences, we focused on verifying the dependencies between Slovak preferences and foreign milk brands and selected demographic variables. Subsequently, the Spearman Correlation Test in connection to ordinal variables (age, education and income) and the Fisher Exact Test in connection to nominal variables (gender and place of living) were used. The level of the *P*-value (Table 3) was lower than 0.10 only in the case of income (0.020), suggesting that this variable is statistically significant in explaining the preferences of Slovak milk brands. According to the

value of Spearman's rho that accounted for - 0.221, we could classify dependency as a negative, weak one, meaning that foreign milk brands are purchased more by consumers with a higher disposable income (Table 4).

The next question was focused on finding out what kind of milk brands respondents purchase. Individual brands of milk were divided into three categories, specifically the category of original brands of producers (including 16 brand names), brands of retail chains (including 9 brands) and others (including 2 options). From the point of view of percentage expression to the group of most selected original brands of milk producers belonged, the (Slovak) brand Rajo (61%), Tami (43%) and (Czech brand) Tatra (39%); to the group of most selected brands of retail chains belonged the brand Coop Jednota (53%), Tesco (49%), Pilos (34%) and Kaufland (31%) and concerning other options, 25% of respondents introduced that they purchase milk from milk machine and 22% from a service yard. Table 5 represents dependencies between individual milk brands and selected demographic variables in this question.

Table 2. Purchasing Slovak versus foreign brands of milk

Group of brands	Category	N	Binomial test			
			Observed prop.	Test prop.	Exact sig. (2-tailed)	Exact sig. (2-tailed)
G1 (Slovak)	2.00	110	0.98	0.50	0.000	0.000
G2 (Foreign)	1.00	2	0.02			
Total		112	1.00			

Source: own elaboration based on data from the questionnaire survey

Table 3. Dependencies between Slovak versus foreign brands of milk and selected demographic variables

Slovak vs. foreign brands									
Gender		Age		Education		Income		Place	
<i>P</i> -value	Cramer's V	<i>P</i> -value	Spearman's rho	<i>P</i> -value	Spearman's rho	<i>P</i> -value	Spearman's rho	<i>P</i> -value	Cramer's V
0.783	-	0.110	-	0.265	-	0.020*	- 0.221	0.113	-

Source: own elaboration based on data from the questionnaire survey

Table 4. Purchasing Slovak versus foreign brands of milk by respondents segmented by income

Income	More foreign brands (N)	More Slovak brands (N)
Up to 334 €	0	5
335 – 550 €	0	15
551 – 1 110 €	1	51
1 111 – 1 670 €	1	26
1 671 € and more	0	13

Source: own elaboration based on data from the questionnaire survey

A presence of dependency in each studied demographic variable was identified. Specifically, gender was weakly correlated to the brand Babicka, Gemer milk, Kunin, Olma, Rajo, Tami, CBA and Laura. It has been shown (Table 6) that while women had a greater tendency (compared to men) to purchase Slovak brands of milk, Rajo (68%), Tami (53%) and Babicka (10%), men showed a greater tendency (compared to women) to purchase Czech brands of milk, Kunin (8%) and Olma (4%). In the case of age, we identified six weak dependencies, of which four were positive. In the connection to the brand Babicka, Olma, Tami and milk from the service yard, the remaining two were negative, i.e. in the connection to Kaufland and Pilos.

As a result, it could be said that older consumers purchase milk from original brands of milk producers, Babicka, Olma and Tami, or milk from service yards; younger consumers purchase milk with brands of retail chains Kaufland and Pilos. Concerning education, we identified three negative, weak dependencies, specifically in relation to the brands Olma and Milblu and milk from the service yard, which suggest that consumers purchase these three brands of milk with lower education. Regarding income, we identified seven dependencies of weak power and negative direction. It was the milk brand Milex, Olma, CBA, Coop Jednota and Laura, and milk from the service yard. All of these brands, from which the majority belonged to the group of brands of retail stores (that tend to sell at lower prices), showed to be more purchased by consumers with lower disposable income. Finally, we identified the most significant proportion of

dependencies, fourteen, concerning the place of living, of which two were medium of power (in brand Kunin – 0.266 and milk from service yard – 0.253) and the remaining twelve were weak of power. According to the answers of respondents, it could be concluded that consumers (Table 7) living in a city purchase Czech brands of milk, Kunin (10%) and Bohe Milk (1%) or brands of milk produced out of their region, Rajo (64%) or Tami (48%) what refers to original brands of producers; and what refers to brands of retail chains, they purchase brands of the retail chain Kaufland (35%) and Billa (18%). Consumers living in a village tend to purchase brands of milk produced by their regional producers, Gemermilk (the brand Gemer milk – 3%) and Koliba (the brand Hrinovske mlieko – 3%), then milk from the retail chain Coop Jednota (63%) as well as milk coming from service yard (31%). Concerning all of these results, hypothesis H2 could be confirmed as follows: in case of gender with respect to 8 brands of milk, in case of age with respect to 6 brands of milk, in case of education with respect to 3 brands of milk, in case of income concerning 7 brands of milk and finally in case of place of living with respect to 14 brands of milk.

The last area of research intention concerned the role of country of origin in the purchase of milk. Regarding this, respondents were asked to evaluate the degree of importance (on a scale from 1 – not at all important to 5 – the most significant). By applying the statistical method mode, we get to know that consumers from the region of Central Slovakia consider the country of origin as a crucial criterion (mode = 4, the country of origin was considered as very important – 4 and essentially important – 5 by

Table 5. Dependencies between brands of milk and selected demographic variables

Brand	Gender		Age		Education		Income		Place	
	P-value	Cramer's V	P-value	Cramer's V	P-value	Cramer's V	P-value	Cramer's V	P-value	Cramer's V
Babicka	0.010*	0.231	0.071*	0.146	0.405	-	0.191	-	0.151	-
Bohe Milk	0.117	-	0.237	-	0.208	-	0.166	-	0.084*	0.175
Euromilk	0.287	-	0.828	-	0.947	-	0.312	-	0.158	-
Gemer milk	0.025*	0.189	0.264	-	0.138	-	0.836	-	0.014*	0.209
Hrinovske mlieko	0.266	-	0.131	-	0.601	-	0.307	-	0.068*	0.187
Kunin	0.089*	0.174	0.737	-	0.250	-	0.995	-	0.001*	0.266
Milex	0.183	-	0.264	-	0.486	-	0.046*	-0.157	0.115	-
Milk	0.232	-	0.219	-	0.608	-	0.330	-	0.040*	0.201
Milsy	0.175	-	0.758	-	0.488	-	0.168	-	0.024*	0.213
Mlieko	0.248	-	0.840	-	0.210	-	0.894	-	0.074*	0.176
Olma	0.013*	0.207	0.037*	0.154	0.013*	-0.187	0.049*	-0.156	0.180	-
Rajo	0.024*	0.208	0.802	-	0.472	-	0.778	-	0.078*	0.177
Sabi	0.116	-	0.993	-	0.597	-	0.151	-	0.167	-
Selce	0.139	-	0.042*	0.161	0.753	-	0.544	-	0.159	-
Tami	0.009*	0.240	0.186	-	0.282	-	0.457	-	0.052*	0.190
Tatra	0.225	-	0.926	-	0.292	-	0.172	-	0.143	-
Billa	0.172	-	0.294	-	0.644	-	0.335	-	0.035*	0.202
CBA	0.072*	0.183	0.613	-	0.946	-	0.042*	-0.166	0.103	-
Clever	0.220	-	0.731	-	0.483	-	0.190	-	0.159	-
Coop Jednota	0.153	-	0.493	-	0.202	-	0.009*	-0.211	0.017*	0.224
Kaufland	0.298	-	0.018*	-0.191	0.428	-	0.885	-	0.059*	0.194
Laura	0.086*	0.183	0.326	-	0.992	-	0.073*	-0.144	0.078*	0.181
Milblu	0.249	-	0.995	-	0.049*	-0.157	0.983	-	0.171	-
Pilos	0.275	-	0.019*	-0.190	0.594	-	0.873	-	0.143	-
Tesco	0.184	-	0.159	-	0.866	-	0.410	-	0.115	-
Service yard	0.261	-	0.002*	0.247	0.052*	-0.155	0.094*	-0.135	0.004*	0.253
Milk machine	0.291	-	0.735	-	0.932	-	0.467	-	0.150	-

Source: own elaboration based on data from the questionnaire survey

53%) when purchasing milk. From the point of view of tested dependencies, we identified only one weak positive dependency, in relation to age (0.183), with respect to the factor of the country of origin (Table 8). This means that the older a consumer is, the factor of the country of

origin is more important when purchasing milk. Due to this, we could confirm hypothesis H3 only in the case of the demographic variable of age. The hypothesis cannot be confirmed for other demographic variables, whereas the *P*-value exceeded the level of 0.10.

Table 6. Brands of milk purchased by respondents segmented by gender

Brand of Milk	Women		Men	
	N	%	N	%
Babicka	8	10.00	1	1.39
Gemer milk	0	0.00	2	2.78
Kunin	3	3.75	6	8.33
Olma	0	0.00	3	4.17
Rajo	54	67.50	38	52.78
Tami	42	52.50	24	33.33
CBA	14	17.50	7	9.72
Laura	8	10.00	3	4.17

Source: own elaboration based on data from the questionnaire survey

Table 7. Brands of milk purchased by respondents segmented by place of living

Brand of Milk	City		Village	
	N	%	N	%
Bohe Milk	1	1.14	0	0.00
Gemer milk	0	0.00	2	3.13
Hrinovske mlieko	0	0.00	2	3.13
Kunín	9	10.23	0	0.00
Milk	9	10.23	12	18.75
Milsy	7	7.95	11	17.19
Mlieko	13	14.77	13	20.31
Rajo	56	63.64	36	56.25
Tami	42	47.73	24	37.50
Billa	16	18.18	6	9.38
Coop Jednota	41	46.59	40	62.50
Kaufland	31	35.23	16	25.00
Laura	8	9.09	3	4.69
Service yard	13	14.77	20	31.25

Source: own elaboration based on data from the questionnaire survey

Table 8. Dependencies between country of origin and selected demographic variables

Gender		Age		Education		Income		Place	
P-value	Cramer's V	P-value	Spearman's rho	P-value	Spearman's rho	P-value	Spearman's rho	P-value	Cramer's V
0.164	-	0.025*	0.183	0.480	-	0.452	-	0.970	-

Source: own elaboration based on data from the questionnaire survey

DISCUSSION

The situation in the Slovak milk market is not very favourable. The import of milk from abroad is slightly increasing, and the proportion of milk of Slovak origin in shops stands at slightly over 73% (Bibel, 2022). The country of origin in the purchase of milk is followed "only" by less than 70% of Slovak consumers, which represents one of the lowest proportions within the European Union. The severity of the situation is enhanced by the declining number of milk businesses and deepening losses of Slovak primary milk producers, and therefore if Slovak milk has to survive, it requires a loyal consumer (Sedlak, 2015). In connection with this, we focused on examining the role of the country of origin in the purchase of milk by consumers from the regions of Central Slovakia. The survey results showed that more than half (53%) of consumers considered the country of milk's origin essential or very important. This is slightly less (16%) compared to the results of the European Commission (2014), according to which the country of milk's origin was considered important by 69% of Slovak consumers. Several studies have dealt with the factors affecting purchasing and consumer behaviour in the dairy market. Bytyqi et al. (2020) investigated milk and dairy product consumption patterns in Kosovo households. Based on the results, it can be concluded that the most important factors when buying milk and dairy products were mostly the quality and safety of the product. The quality of the product was evaluated by more than 60% of the participants. More than 80% of respondents claimed that the origin of milk and other dairy products is not important to them. On the other hand, findings by Hysen et al. (2008) showed that trust, quality, and origin of the product are the most critical determinants

influencing dairy product purchase. Similarly, Bousbia et al. (2017) found that when it comes to consumers' perception of milk product consumption, factors such as country of origin, type of store, brand, health advantages, packaging, and advertising have a substantial impact. Results by Petroman et al. (2015) showed that milk consumption is mainly influenced by tradition, age and the price of the products. Data obtained by Krivošíková et al. (2019) showed that taste, quality and durability impact purchasing and consumption decisions the most. The packaging and advertising were evaluated as the least important factors. Country of origin had no significant impact on purchasing milk in Slovakia. Country of origin, trust in sellers and price were the factors significantly influencing consumers in Italy (Tempesta and Vecchiato, 2013). Zhang et al. (2020) investigated the influence of country of origin on imported milk towards Chinese consumers. The findings showed that Chinese consumers were more willing to purchase premium milk from foreign countries such as Australia, New Zealand, Germany and France than domestic milk. Moreover, Ngyuen et al. (2019) added that foreign product knowledge plays a crucial role in purchase intention. A higher level of product knowledge causes a higher awareness about the country of origin. In addition, according to Merlino et al. (2022), country of origin, expiry date, brand and price are the most critical determinants in the decision-making process. Therefore, the national product is associated with guaranteed quality and traceability. Finally, Krešić et al. (2010) dealt with the choice motives for dairy products according to gender in Croatia. The most important factor was the sensory appeal for both genders. The second important factor for males was brand. On the other hand,

for females, it was a health aspect. Country of origin was ranked in third place in the case of both genders. Based on this result, supporting domestic products was evident and consistent with the study by Chambers et al. (2007), where British consumers were likely to purchase national products.

According to the perceived quality, Rahmawati and Muflikhati (2016) discovered that 82% of participants in Indonesia trust the quality of domestic food. The perception of foreign food was evaluated similarly. More than 54% of participants claimed the good perceived quality of foreign food and the ability of foreign producers to make high-quality products. Kleinová and Lušnáková (2010) in their study focused on a comparison of Slovak and foreign food products – specifically products made in the Czech Republic, Hungary, Poland, and Germany. According to the results, it could be concluded that there were significant differences between the countries. Slovakia, the Czech Republic and Germany were the first group of countries without any differences. The image of the mentioned group was positive. On the other hand, Poland food was evaluated with the lowest rate of food image. This was mainly caused due to the food scandals.

Besides identifying the degree of importance that consumers attribute to the country of origin when purchasing milk, we focused on examining dependencies between the criterion of the country of milk's origin and selected demographic variables, gender, age, education, income and place of living. Only the age variable was statistically significant ($P = 0.025$). These results are in line with research by Eicaite (2016) and Kleinová and Neomani (2010). All of these researchers agree that the country of origin is mainly observed and considered by middle-aged consumers whose age range, however, moves heterogeneously, from 35 to 49 years (Kleinová and Neomani, 2010), from 46 to 65 years (Eicaite, 2016) or 55 and more years (European Commission, 2014). Our survey showed that the country of origin is seen as an important and very important criterion of milk purchase, mainly for consumers aged 36 to 65 years (58%) and then for consumers aged 66 and more years (54%). Other

dependencies, the ones related to the variable of gender, education, income and place of living, were not confirmed within our survey. A study by Breitenbac and Balk Brandão (2019) pointed out that Brazilian consumers between the ages of 18-25 did not care about the origin of milk when purchasing. Moreover, Brazilian women were more interested in their country of origin compared to men when purchasing.

Based on the questionnaire survey results regarding purchasing preferences, 25% of participants claimed to purchase milk directly from the machine and 22% from the service yard. A study by Grębowiec (2021) showed that supermarkets and hypermarkets are the most preferred places to purchase dairy products. Only 4% of respondents claimed that they purchase dairy products in local stores. Moreover, over 23% of participants stated that they purchase dairy products through the Internet, which is connected with the growing interest in Internet purchases primarily due to the Covid-19 pandemic. Finally, results by Velčovská and Larsen (2021) showed that more than 90% of Czech participants prefer to purchase milk in supermarkets and hypermarkets. Only 2% of respondents claimed they buy milk from a speciality store.

The second part of the survey dealt with preferences of Slovak and foreign brands of milk by consumers from the regions of Central Slovakia. We examined this issue from two points of view. From the broader point of view, we studied respondents' preferences for Slovak and foreign groups of brands and from the narrower point of view, we asked about specific names of milk brands respondents purchase most frequently. By applying the Binomial Test, we found that 110 respondents (98%) preferred Slovak milk brands. In addition, our finding is in line with the general assumption that consumers tend to prefer products from their home country before those from abroad (Eicaite, 2016). In connection to the studied demographic variables, the survey uncovered the dependency between income and preferences of Slovak and foreign brands, meaning that a greater tendency towards purchasing foreign milk brands was observed in consumers disposing of higher income. In the research

of Lesakova (2016), the significant negative effect of income on Slovak consumers' ethnocentric tendencies when purchasing dairy products was confirmed. More specifically, testing showed that women (compared to men) reflect a greater tendency to purchase Slovak brands (Rajo, Tami and Babicka) of milk, and conversely, men (compared to women) reflect a greater tendency to purchase foreign (Czech) brands of milk (e.g. Kunin and Olma). The similarity of these findings could be found in the research by Hysen et al. (2008), acknowledging women as those inclining more towards local dairy products and men as inclining more towards imported dairy products. Furthermore, it has been shown that women had a greater tendency to purchase Slovak brands of milk, Rajo (68%), Tami (53%) and Babicka (10%). On the other hand, men showed a greater tendency to purchase Czech milk brands, Kunin (8%) and Olma (4%). The research showed that Czech consumers prefer any kind of milk brand (54%). More than 18% of participants preferred the Kunin brand (Velčovská and Larsen, 2021).

Finally, the last conjunction could be observed in the linkage to the research of Bousbia et al. (2017), in which the local origin of dairy products showed to be more important for consumers from rural areas. We also came to a similar conclusion, whereas we confirmed dependency between specific brand names of milk (Bohe Milk, Gemer milk, Hrinovske mlieko, Kunin, Rajo and Tami) and place of respondents living based on statistical Test and the answers of respondents suggested that consumers from cities (compared to those from villages) purchase more foreign (Czech) brands of milk (Bohe Milk and Kunin) or brands produced outside their region (Rajo and Tami) and consumers from villages (compared to those from cities) purchase more milk produced by regional producers (Gemer milk and Hrinovske mlieko).

CONCLUSIONS

Current conditions in a marketplace create a space for doing business almost anywhere. The marketplace has become increasingly globalised, competitive and flooded with products of different origins. Because of that, the country of origin plays an important role in setting a

competitive advantage and determining the source of the product's value for domestic or local producers and representing one of the crucial decision-making criteria for consumers when purchasing products. This paper aimed to investigate the role of the country of origin in the purchase of milk by consumers from the regions of Central Slovakia. In connection to this, we focused on finding preferences of Slovak and foreign brands of milk, then knowing brands of purchased milk, and finally testing dependencies between the country of origin and selected demographic variables (gender, age, education, income and place of living). The survey results showed that slightly more than half, 53%, of consumers considered the country of milk's origin an important or fundamental purchase criterion, which is relatively low compared to the EU 28's average, accounting for 73% (European Commission, 2014). Concerning this, a possible (future) research question arises of what is behind this gap and what other criteria are more appealing to consumers when purchasing milk.

Another benefit of the survey was confirming a correlation between the country of origin and the age of consumers. According to results, the country was perceived as an important and very important criterion when purchasing milk mostly (58%) by consumers in the middle age category, in 36–65 years of life. A further correlation was confirmed between the consumer's income and his preferences for Slovak and foreign milk brands. More specifically, the testing showed that consumers disposing of higher incomes tend to purchase more foreign brands of milk than those having lower incomes. The income of respondents, together with age, gender, education and place of living, appeared to be a statistically significant variable in explaining the preferences for purchasing specific brand names of milk, too. More specifically, the analysis of data showed that Slovak brands of milk appeared to be purchased more by females and Czech brands of milk showed to be more preferred by male respondents; then, older consumers inclined more towards purchasing milk (brand) of the original milk producers and younger inclined more towards purchasing milk (brand) of retail chains; and consumers living in a

city tended to purchase Czech brands of milk and brands from non-regional producers and those living in a village tended to purchase brands of regional producers. Apart from whether the country of milk's origin is important to consumers from the regions of Central Slovakia or not, the survey uncovered that the vast majority, 98% of them, preferred Slovak brands of milk. Moreover, according to data obtained from a questionnaire survey, it is evident that 54% of respondents of age 66 and more considered country of origin as an important determinant of purchase. This is a key finding that has to be implemented by Slovak producers of milk in value creation and marketing communication strategy. Slovak milk is generally perceived as high quality. Slovakia has a strong tradition in the dairy industry. Moreover, Slovakian cuisine features dishes that incorporate milk and dairy products. Therefore, we assume that not only the country of origin but also tradition and milk utilisation influence consumers' buying behaviour in the milk market. Milk and dairy producers should concentrate on milk promotion, emphasising traditions and domestic origin. Promoting locally produced milk requires targeted marketing efforts and a focus on highlighting the benefits of choosing local milk. Consumers should be informed about the benefits of choosing locally-produced milk. Freshness, quality, supporting local producers, and the reduced environmental impact due to shorter transportation distances are the key factors to increase consumer awareness. These factors could be communicated directly on the product packaging or through television spots or social media. Moreover, we suggest utilising a website, social media channels, and digital marketing to share the story of local milk brands, for instance, by showing behind-the-scenes footage, interviews with farmers, recipes and reviews from satisfied customers to create a connection with the audience. Additionally, it is necessary to address the advantages of milk consumption, which could ultimately lead to increased sales. We are of the opinion that consumers should be informed about the benefits of milk consumption from a young age. Therefore, marketing communication should highlight not only mentioned aspects but also the nutritional value, emphasising Slovak

milk. Milk contains many essential nutrients, such as minerals and vitamins, which help support health.

The limitation of our research lies in conducting research on a representative sample of respondents only from the regions of Central Slovakia, which enables us to generalise achieved results on consumers from Central Slovakia and not from the whole of Slovakia. Therefore, we see a future research potential of a survey in its repetition on a representative sample of respondents from the regions of the whole of Slovakia and its eventual (content) enlargement by the issue of also finding other factors (than the country of origin) that would create an effective combination of benefits within value formula supporting milk's consumption.

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