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GENDER DIFFERENCES IN CONSUMER PREFERENCES WHEN BUYING DAIRY PRODUCTS IN SLOVAKIA AND RUSSIA

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ABSTRACT

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In spite of geographical and culture differences between examined countries, there can be found similarities in consumer behavior of men and woman and also the similar tendencies on the dairy product market. In the last decade different fields of science concerns with the topic of gender differences more frequently. The article is based on a research of consumers' overall attitude to dairy products in Slovakia and Russia. The important role of gender differences underlines the outcomes of the questionnaire survey. Kruskal-Wallis test and Bonferroni correction was applied to verify the hypothesis whether there is a dependency between gender of the respondents and their attitude while choosing the dairy products in both countries. Analysis showed that in both countries women tend to buy dairy products more often than men. Also consumers prefer more domestic products, but Russian not as significantly as Slovakian. In both countries consumers consider the price of dairy products as high, but they don't outline the price as the most important factor when choosing dairy products. At the same time, both genders consider quality as the most important factor. These results indicate the existence of a niche at the Russian market, which could be used by Slovak dairy producers who can possibly penetrate Russian market. In addition, the similar marketing strategy for both, Slovak and Russian market can be used if the advertisement will be sensitively focused on the gender.

Keywords: gender difference; dairy product; preference; Slovakia; Russia

INTRODUCTION

Penetrating of foreign market is one of the main strategic decisions company's management can do. Decision making in this case is ongoing process which have to include thoroughgoing market analysis (Crowley, Meng and Song, 2018) and subsequently designing of marketing strategy for specific groups of products (Yang, 2018). Campaign planners need to answer three questions (Elsner, Kraft and Huchzermeier, 2004): "when to make an offer (timing), how often to make an offer (frequency), and whom to contact (target group). In this article we are focusing on the target group selection problem, which is widely studied under problem of direct marketing and churn management (Zhu, Baesens and vanden Broucke, 2017).

The food industry has an irreplaceable status in the economy, since it is producing food for the population. Therefore, food producers are not just entrepreneurs, but they provide food security. Food security was defined by **United Nations (1975)** at World Food Summit as "availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices" Therefore the task of food producers is not just to

create profit, but provide food security and secure food too (Golian et al., 2018). Their role is increasingly important within production of dairy products where every country has set the Rational Consumption Norms. Since population usually does not consume prescribed quantities (Kubicová and Habánová, 2012; Zingone et al., 2017; Kubicová, Predanocyová and Kádeková, 2019), information that the consumer receives as part of the advertising campaign companies plays increasing role in ensuring of nutritionally sufficient consumption. Consumers have positive attitudes towards cause related marketing programms (Witek, 2016). Nutrition educationing in this area results in an increased intake of calcium-rich foods (such as dairy products) which is important in the prevention of osteoporosis (Melton et al., 1997). To popularize these products, Kim, Reicks and Sjoberg (2003) recommend using concepts that dairy products taste good, they can serve as beverages at breakfast or during the rest of the day, they help one to have a balanced diet, and they are foods that go well with other foods. In addition, practitioners might help older adults increase perceived control in eating dairy foods with meals by substituting milk for other beverages and enhancing cooking skills using dairy products. Nonetheless Ajzen

(1991) adds that, the relationship between perceived behavioral control and intention is also dependent not just on the behavior but situation as well. In addition, even in this area, we can not forget the differences between men and women. Gender differences are described from variant points of view in different fields of science, and the impact of gender on consumer behavior is increasingly being solved mainly in last decade (Lockshin and Corsi, 2012). For example, research outcomes usable in marketing are that: men have higher ICT self-efficacy and hold more favorable attitudes toward technology than girls (Cai, Fan and Du, 2017), women in Western societies are typically more risk averse than men in individual risk taking decisions (Friedl, Pondorfer and Schmidt, 2019), or that there are differences in variations in fixation count, fixation duration, pupil diameter, and hit ratio when buying (Qu and Guo, 2019). Nonetheless, not only gender should be taken into account when assessing consumer behavior, purchasing is influenced by several factors (Kozelová et al., 2011) among which is dominated consumer personality, income, finances and lifestyle, as well as psychological factors such as perception, motivation, learning, cognition and attitudes. But, several authors confirm specificly the role of origin (Bryła, 2015; Kumpulainen et al., 2018a; Thøgersen, Pedersen and Aschemann-Witzel, 2019) and gender (Kumpulainen et al., 2018b; Broussard, 2019) in the food marketing and consumer decisions.

Scientific hypothesis

H0: The samples come from the same population.

H1: The samples do not come from the same population The hypothesis aply to whether there is a dependency between gender (Mansoora, 2017; Thelwall and Stuart, 2019; Li and Zeng, 2019) of the respondents and their attitude while choosing the brand of dairy products.

MATERIAL AND METHODOLOGY

The research was conducted from February 19, 2019 to March 20, 2019, attended by 203 respondents from Slovakia and 104 respondents from Russia. The questionary was filled by respondents of all ages, in different social situations and with different views on the issue. Questions dealt with consumers' overall attitude to dairy products.

Statistic analysis

For the collection of data, online Google form of questionnaire was used. The results of the survey were processed using XLSTAT version 2019.1 by Addinsoft.

We implied Kruskal-Wallis test (**Ruxton and Beauchamp, 2008**) and bonferroni correction on the sample of Slovak respondents and consequently on a Russian sample. A prerequisite for using this test is that all observations are independent of each other so that the variable under consideration is measured on the ordinal scale, and that all \Box selection distribution functions are approximately the same shape. The hypothesis that all selections come from the same distribution, or from distributions with identical distribution functions were tested: H0: F1 (X) = F2 (X) = Fk (X) versus alternative hypothesis that not all distribution functions equal. The

significance level α is set to 0.05, ie allowance is a 5% test error. If p-value is $\leq \alpha$, then H0 is rejected at the significance level α and we accept H1. If

p-value > α , then H0 is not denied at the significance level α . Statistical hypothesis testing is based on rejecting the null hypothesis if the likelihood of the observed data under the null hypotheses is low. If multiple hypotheses are tested, the chance of a rare event increases, and therefore, the likelihood of incorrectly rejecting a null hypothesis increases (**Mittelhammer, Judge and Miller, 2000**). The Bonferroni correction compensates for that increase by testing each individual hypothesis at a significance level of α/m , where α is the desired event!

 α/m , where α is the desired overall alpha level and m is

the number of hypotheses (Miller, 1970).

Therefore, we applied Bonferroni correction to counteract the problem of multiple comparisons between the following questions:

Question 1. How often do you buy dairy products?

Question 2. What kind of dairy origin do you prefer?

Question 3. What do you think about the prices of milk and dairy products?

Question 4. What is the most important factor for you when choosing a dairy brand?

RESULTS AND DISCUSSION

Slovakia and Russia are states with many geographic, economic (Table 1) and social differences as well. Their markets are in many ways hardly comparable. But, considering impact of Soviet block period of both countries and fact that both are "Slovanian" nations, there are many cultural similarities as well. These common signs could be fundamental for bilateral cooperation and international entrepreneurship activities between each other. Since Russian market is one of the biggest worldwide, it can be seen as a big opportunity for Slovak production sector. However, nowadays Slovak producers have to respect membership in European Union, which is visible mostly in case of quotas in primar agricultural production. These apply to selected products and in the Slovakia it is recently connected mainly with milk and situation at the market of dairy products. Slovakia with the total of 826 thousand tons produces less than 1% of the total EU milk production (Table 2). Russia, despite the total country size, in 2017 produced only more than 31 million tons of milk. While more than 154 million tons of milk was produced in the European Union. Despite this, the dairy industry is of particular importance for the economy and population of Russia. More than 21 thousand organizations and more than 1.2 million people work in the dairy industry and related industries. Milk and dairy products make up 15% of the turnover of retail chains. Strong investments from foreign enterprises, as well as government support in the form of subsidies and loans made Russia one of the world's largest producers of milk and dairy products worldwide. However, it has a fairly low share of marketable milk in total production (57%), and by the efficiency of dairy cows it loses more than twice to developed countries. But, Russian milk production is increasing constantly. Starting before the imposition of an embargo on the import of food and beverages in 2014, Russian dairy production grew on average by 4% per year. In 2017 was recorded a new high level when it exceeded 11.1 million tons of dairy products. Between 2015 and 2017, growth was especially sharp and volume of production increased by 15%. Production growth slowed to 3% in 2018 (**Rosstat, 2019**), but the impulse is still ongoing.

Nowadays after the change in the approach of Common Agricultural Policy (CAP) milk quotas in EU gradually disappeared (after 2009) and milk production rapidly increased (in 2015) with the simultaneous decrease in price.

Milk production in Slovakia decreased by 15% from 2007 to 2017 and farmers do not cover domestic consumption of milk and dairy products. Situation is not caused just by low purchase prices for milk, but lower subsidies for Slovak farmers in comparison with farmers from other member states as well.

Consequently, Slovak dairy sector is able to produce just the 251,000 tons of drinking milk, 4,000 tons of milk powder, 9,000 tons of butter and 38,000 tons of cheese (Eurostat, 2019). On the other hand, the dairy industry in Russia is capable of fully cover all major commodity groups as: 9.2 million tons of liquid milk, 935 thousand tons of cheese, 260 thousand tons of butter, 68 thousand tons of nonfat dry milk and 60 000 tons of whole milk powder. Despite the fact that the production of dairy products with high milk content increased - cheeses and cheese products (8.5%), butter (7.1%) and dry milk (28.8%), the production of milk, fermented dairy products and cottage cheese decreased (3.1%, 5.8% and 1.7%, respectively). This decrease possibly creates market niche for foreign producers and traders. Despite fact, that Slovak producers do not cover domestic consumption, penetrating of Russian market can be solid long term opportunity for them. Since Slovak market is covered by foreign producers from other EU member states with competitive advantage of higher support, market distortions could lead Slovak producers to biggest growing Eastern markets. As states Esmerino et al. (2017) even with their limited financial and human resources, they can focuse on new consumer markets and by using effective strategy, introduce their products with a minimal risk of failure.

This movement is also supported by the development of prices (Figure 1) which are following the same trends in Slovakia and Russia, but prices in Russia remain steadily higher ever since 2010. In Slovakia an increasing milk production, associated with the end of milk quotas, resulted in a marked decline in the milk price index. In addition, Slovaks have been for a long time Europe's weakest milk consumers.

Not only, the average Slovak drank only half of recommended 220 kilograms per year, per capita consumption here decrease from 71.5 liters in 1996 to 45.1 litres in 2016. On the contrary, in the case of cheese consumption, there was a significant increase in consumption (from 8.1 kg to 13.9 kg) and Slovaks exceed the recommended rational consumption norms (RCN) (Table 3). In Russia, devaluation risks and difficult economic situation in the country led to a decrease in the purchasing power of the population and an increase in the cost of production of dairy products in 2015 – 2016. And the consumption of dairy products in recent years is here also decreasing. In 1990 the average level of consumption of dairy products was 387 kg per person yearly, while by

2015 this number dropped to 239 kg per person in year. These values are above Slovak RCN, but Russian recommended medical norm is set on 325 kg per person per year, which creates possibility for increased consumption. In the field of dairy products, the import of dairy products and cheese annually exceeds their exports in Slovakia since 2009. While in 2016, Slovakia imported dairy products and cheese in the amount of 307 million EUR from abroad, exports amounted to 232 million EUR. However, the biggest problem for Slovakia is that only a third of the butter and cheese that can be bought in stores is made locally. The level of self-sufficiency in this area is high, but in reality foreign dairy products prevailon Slovak market. On the orher hand Slovak dairy products are exported to several countries, most of which are EU members, 25% of all exports to Hungary, another 20% to the Czech Republic, almost 18% to Germany and 15% to Italy. The remaining 35 countries account for 8% of total exports.

The introduction of the embargo contributed to a significant reduction in import volumes of dairy products into Russia. For the period from September to December 2014, the volume of imports of dairy products decreased by 27.3%, to 2.540 thousand tons. At the same time, countries that previously provided up to 38% (2013) of all imports left the Russian market. Among them for example Finland (butter and cheese), the Netherlands (cheese), Germany (cheese and cheese-like products), Lithuania (cheese), Poland (cheese), France (butter, cheese, whey), etc. The overall volume of imported goods fell from 9.4 million tons to 7 million tons per year.

The embargo also affected the export side, since export of milk and dairy products increased from 639 thousand tons in 2013 to 743 tons in 2016. The adoption of the Food Security Doctrine in Russia has also influenced the international trade of the country. Its task is to provide 90% of domestic consumption with its own products for the dairy industry. In 2013, the indicator of security of dairy industry was on the level of 76% and the indicator for commodity milk separately was lower than 66%. These results recommend hard possibility of penetration into the Russian market for foreign producers but, considering its size and possibilities it offers, this effort is highly forwarded. By 2025, the Russian dairy market is expected to reach 34.56 billion dollars. In addition, per capita income growth and increased consumption of dairy products due to health benefits are likely to contribute to the development of the market in the future. Investments into processing capacities of milk and dairy products would be effective not just in connection with the possibility of penetrating foreign (Russian) market. The volume of dairy products in the Slovak market by 2021 expects to reach 398 million kg.

The composition of respondents by gender in Slovakia shows that three quarters of respondents were women who are probably more concerned with this issue and also buy food products more often than men. Specifically, 152 women and 52 men living in Slovakia answered to the questions in the questionnaire.

In Russia, higher percentage of men responded to the questionnaire in comparison with Slovakia. Up to 38% of respondents – 40 men from Russia – participated in the survey. The remaining 62% were women. For many

questions, the Figures 2 – Figure 9 show the differences between the responses of women and men.

Figure 2 and Figure 3 shows frequency of purchases of dairy products by respondents, with possibility to see differences between genders. In Slovakia, 61% of all respondents buy dairy products several times a week, 27% once a week and 10% daily. The remaining 2% buy dairy products less frequently. However, differences can be seen between men and women. The biggest difference between answers of man and woman can be seen in case of answer "daily", when woman buy dairy products by 60% more daily than men. In Russia, almost half of respondents buy dairy products at least a few times a week. 29% of respondents buy dairy products even every day and 13% once a week. The remaining 11% of respondents buy dairy products less frequently or do not purchase them at all. All these groups are men. Thus, even in Russia, women tend to buy dairy products more often. Overall, at such a high frequency of purchases of dairy products, our respondents should have a good overview of market supply, prices and trends.

In Slovakia, the largest proportion of respondents which is 72% prefers dairy products produced in Slovakia. 27.5% of respondents do not distinguish between Slovak dairy products and those imported into the country (Figure 4). Only one respondent prefers products of foreign origin. There was a difference between preferences of men and women. While 55% of women prefer Slovak products and the rest do not make a difference between products of different origins, for men only 16% prefer Slovak products, one questioned men prefers foreign products and the rest of them don't distinguish the origin. Therefore, the preference of Slovak products could be an advantage for domestic producers.

In Russia, most respondents also prefer products made in Russia – 60% of respondents (Figure 5). The number of people preferring foreign products is higher compared to Slovakia. More than 15% of Russian customers prefer dairy products of foreign origin. Especially men are more inclined to foreign products. The remaining 25% of respondents do not distinguish where the product comes from. This creates space for importers and possible opportunity for Slovak companies to deliver their products to Russian market.

Currently, over 70% of Slovak respondents consider prices of dairy products to be high, which is 144 respondents. 26% of respondents consider prices as reasonable and only 3% as low. However, women hardly consider prices to be low. Only one woman chose this option in questionnaire. 27% of women perceive prices as reasonable and the remaining 72% think prices are high. On the other hand, 10% of men consider prices of dairy products as low, two-thirds of men as high and the remaining 23% think prices are reasonable. However, consumers' perception of prices is largely influenced by their income (Figure 6). In Russia, 70% of respondents consider the prices of dairy products to be high. The remaining 30% consider them as reasonable. However, none of the respondents perceives the prices as low (Figure 7).

For Slovak consumers, the quality of the dairy product they purchase is the most important factor. Nearly 40% of them, which is 81 interviewers, who choose this option. The second most frequently chosen factor was taste, selected by 49 respondents, which is 24%, followed by composition, which is 15%. Price was the fourth most frequently chosen factor, chosen by 14% of respondents. Only 15 respondents chose the origin of the product, which is 7%. There is a big difference between men and women in two factors: quality and taste. The most important factor for Slovak woman and man was quality followed by taste. Their preferences are different in case of next mostly preferred factor, which women consider as composition and men price. The least answered factor for chosen dairy products for women was origin and composition for men. According to the results of the survey, the majority of Slovak respondents appreciate if the product is of high quality, it is tasty, has the appropriate composition and origin of production (Figure 8).

Also in Russia, the most important factor was the quality of the product, which was selected by 40% of respondents. This was followed by the taste and composition of the product chosen by 20 respondents, which is 19.23%. Only six respondents have chosen the origin of the product. It is also possible to see compliance between Russian women and men. While 30% of men chose the product's quality as the most important factor, also 43.75% of women chose the same factor. On the contrary, 21.88% of women chose the price of the product as the most important factor, but only 5% of men. The composition of the product was also more important for men, while the overall quality of the product for women. From the founded similarities between Slovak and Russian respondents we can recommend for Slovak exporters to Russian market to copy the gender approach to Slovak market at Russian market as well (Figure 9).

For the statistical evaluation firstly Kruskal-Wallis test on the sample of Slovak respondents and consequently also on Russian sample was used (Table 4). The results of the analysis of the 203 samples for Slovakia already described above were proved by calculated means and the significance of the variables were verified by Kruskal-Wallis test. From its *p*-value (Table 5) we can see this as highly significant. Therefore, we have accepted alternative hypothesis, and thus there is a dependency between the most important variables for choosing a brand of dairy products and gender of the respondents.

From the multiple comparison of selected variables using Bonferroni correction, we can see the significance between gender and every included variable. According to this we can conclude, that gender has significant impact on the answers concerned with the preferences of buying dairy products in Slovakia. Also there are significant differences between the selected questions and surprisingly we can see connection of origin and all the other variables.

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2017

Table 1 Economic performance of Russia and Slovakia (as a part of European Union) in 2017.								
	Russia	Slovakia	EU					
GDP per capita/USD	11 441	19 897	36 593					
Area/km2	17 125 200	49 036	4 475 757					
Population/millions	144.5	5.4	513					
Average income per capita/EUR	685	1096	1.520					

Note: Source: Own processing based on the World Bank (2019).

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Table 2 Selected indicators of milk production in Russia and Slovakia (as a part of European Union), 2007 – 2017.

Kebbill											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Milk production/thousand tons	31998	32363	32570	31847	31646	31756	30529	30791	30781	30759	31184
Dairy cows/thousand heads	9320	9127	9026	8844	8976	8859	8661	8531	8379	8250	8200
Milk yield per cow per kg	3433	3546	3608	3601	3526	3585	3525	3609	3674	3728	3803
SLOVAKIA											
Milk production/thousand tons	964	946	852	800	812	851	827	844	865	823	826
Dairy cows/thousand heads	180	174	163	159	154	150	145	143	139	133	130
Milk yield per cow/kg	5351	5439	5245	5023	5266	5665	5706	5897	6210	6204	6360
EU											
Milk production/thousand tons	133812	135281	133700	135528	138859	139951	141247	147847	151632	153275	154792
Dairy cows/thousand heads	24287	24406	23871	23314	23053	23193	23468	23559	23594	23525	23311
Milk yield per cow/kg	5510	5543	5601	5813	6024	6034	6019	6276	6427	6515	6640

Note: Source: own processing based on data of SÚSR (2019), Eurostat (2019) and Rosstat (2019).

Table 3 Per capita consumption of milk and dairy products in kg.year-1, 2007 – 2016.

	RCN	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Slovakia	220	153	153	154	163	159	159	158	167	169	177
Russia	325	242	242	244	247	246	249	248	244	239	239

Note: Source: Own processing based on data of SÚSR (2019) and Rosstat (2019). RCN – Rational consumption norms.



Figure 1 Development of milk prices in EUR.100kg-1, 2007 – 2017. Note: Source: Own processing based on data of SÚSR (2019) and Rosstat (2019).

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Table 4 Summary statistics for Slovakian respondents and Kruskal-Wallis test.									
Variable	Observations	Minimum	Maximum	Mean	Std. deviation	Kruskal-Wallis test:			
Gender	203	0.000	1.000	0.251	0.435	K (Observed value)	512.284		
1. Frequency	203	1.000	5.000	2.236	0.713	K (Critical value)	9.488		
2. Origin	203	1.000	3.000	1.557	0.896	DF	4		
3. Price	203	1.000	3.000	2.232	0.488	<i>p</i> -value (Two-tailed)	<0.0001		
4. Factor	203	1.000	5.000	2.443	1.407	alpha	0.05		

Note: Source: Own processing.

Table 5 P-values: Bonferroni corrected significance level: 0.005, Slovakia.

	Gender	1. Frequency	2. Origin	3. Price	4. Factor
Gender	1	<0.0001	<0.0001	<0.0001	<0.0001
1. Frequency	<0.0001	1	<0.0001	0.725	0.622
2. Origin	<0.0001	<0.0001	1	<0.0001	<0.0001
3. Price	<0.0001	0.725	<0.0001	1	0.399
4. Factor	<0.0001	0.622	<0.0001	0.399	1

Note: Source: Own processing.

Table 6 Summar	y statistics	for Rusian	respondents	and Kruskal-	Wallis test.
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Variable	Observations	Minimum	Maximum	Mean	Std. deviation	Kruskal-Wallis test:	
Gender	104	0.000	1.000	0.385	0.489	K (Observed value)	234.058
1. Frequency	104	1.000	5.000	2.115	1.036	K (Critical value)	9.488
2. Origin	104	1.000	3.000	1.654	0.856	DF	4
3. Price	104	2.000	3.000	2.308	0.464	<i>p</i> -value (Two-tailed)	<0.0001
4. Factor	104	1.000	5.000	2.308	1.330	alpha	0.05

Note: Source: Own processing.

Table 7 P-values: Bonferroni corrected significance level: 0.005, Russia.

	Gender	1. Frequency	2. Origin	3. Price	4. Factor
Gender	1	<0.0001	<0.0001	<0.0001	<0.0001
1. Frequency	<0.0001	1	0.004	0.019	0.694
2. Origin	<0.0001	0.004	1	<0.0001	0.001
3. Price	<0.0001	0.019	<0.0001	1	0.050
4. Factor	<0.0001	0.694	0.001	0.050	1

Note: Source: Own processing.



■ men SK ■ women SK ■ Together

Figure 2 Answers to the Question 1: How often do you buy dairy products (SK answers). Note: Source:Own processing.





Figure 3 Answers to the Question 1: How often do you buy dairy products (RU answers). Note: Source:Own Processing.



■ men SK ■ women SK ■ Together

Figure 4 Answers to the Question 2: What kind of dairy origin do you prefer (SK answers)? Note: Source: Own processing



■ men SK ■ women SK ■ Together

Figure 6 Answers to the Question 3: What do you think about the prices of milk and dairy products (SK answers)? answers)? Note: Source: Own processing.



■ men RU ■ women RU ■ Together

Figure 5 Answers to the Question 2: What kind of dairy origin do you prefer (RU answers)? Note: Source: Own processing.



Figure 7 Answers to the Question 3: What do you think about the prices of milk and dairy products (RU answers)? Note: Source: Own processing.



Figure 8 Answers to the Question 4: What is the most important factor for you when choosing a dairy brand (SK answers)? Note: Source: Own processing.

From the statistics for Russian respondents the significance according to Kruskal-Wallis *p*-value was also proved and we accept H1, which shows a dependence of chosen variables to gender (Table 6). Significant importance is seen from the *p*-values (Table 7) of Bonferroni correction in the question of origin. This can indicate that the Russian market can be more open to the foreign producers of dairy products. Outcomes mean, that for both Slovak and Russian market the strategy should be aimed regarding to gender and thus, the similar competitive marketing strategy (Valdani and Arbore, 2015) can be used on both markets.

CONCLUSION

Analysis of the survey on 104 Russian and 203 Slovak respondents showed that the sample of respondents was diverse enough to show their overview of market supply, prices and trends. In both countries women tend to buy dairy products more often than men. Slovak consumers prefer more domestic products and this trend is also noticeable in Russia but not as significantly as in Slovakia. For 70% of consumers in both countries the price of dairy products was high and almost the same percentage of Slovak and Russian respondents consider them as reasonable. Despite the fact that majority of respondents consider price as high, the price is not the most important factor when choosing dairy products. In Slovakia for both genders the price is even on a fourth position behind quality as first, followed by taste and composition. In Russia the same order of preferred factors can be seen, but considering gender separately, Russian women don't copy the overall order, and after quality the price was second most frequent answer.

The fact that most Slovak consumers prefer domestic dairy products, results in support of domestic producers. Despite the same preferences in Russia, but slightly less significant, in both countries the origin was chosen as the last option. This can be used for benefit of Slovak producers who can export their dairy products to Russian market.



Figure 9 Answers to the Question 4: What is the most important factor for you when choosing a dairy brand? (RU answers)? Note: Source: Own processing.

Based on this outcomes, the hypothesis that gender has significant impact on the answers concerned with the preferences of buying dairy products was set. The Kruskal-Wallis test proved the dependence of chosen variables by gender for both countries. When comparing the differences between selected questions we can see the connection of origin with all the other variables. Our results indicate the same importance of origin and gender as a key factors for respondents to buy dairy products. The implementation of this fact to the marketing strategy would mean that the advertising shouldn't be aimed just on the gender, but the domestic origin should be highlighted too. According this, it can be recommended, that the same marketing strategy of producers used in Slovakia can be applied without major changes also on the Russian market. Last but not least, it is very important to take gender into consideration and form this universal marketing strategy with the focus on man and woman separately.

REFERENCES

Ajzen I. 1991. The Theory of Planned Behavior. Organizational Behavior and Human Decision Prosess, vol. 50, no. 2, p. 179-211. https://doi.org/10.1016/0749-5978(91)90020-T

Broussard, N. H. 2019. What explains gender differences in food insecurity? *Food Policy*, vol. 83, p. 180-194. https://doi.org/10.1016/j.foodpol.2019.01.003

Bryła, P. 2015. The role of appeals to tradition in origin food marketing. A survey among Polish consumers. *Appetite*, vol. 91, p. 302-310. https://doi.org/10.1016/j.appet.2015.04.056

Cai, Z., Fan, X., Du, J. 2017. Gender and attitudes toward technology use: A meta-analysis. *Computers & Education*, vol. 105, p. 1-13. https://doi.org/10.1016/j.compedu.2016.11.003

Crowley, M., Meng, N., Song, H. 2018. Tariff scares: Trade policy uncertainty and foreign market entry by Chinese firms. *Journal of International Economics*, vol. 114, p. 96-115. https://doi.org/10.1016/j.jinteco.2018.05.003 Elsner, R., Krafft, M., Huchzermeier, A. 2004. Optimizing Rhenania's direct marketing business through dynamic multilevel modeling (DMLM) in a multicatalogbrand environment. *Marketing Science*, vol. 23, no. 2, p. 173-274. https://doi.org/10.1287/mksc.1040.0063

Esmerino, E. A., Ferraz, J. E., Tavares Filho, T. F., Pinto, L. P. F., Freitas, M. Q., Cruz, A. G., Bolini, H. M. A. 2017. Consumers' perceptions toward 3 different fermented dairy products: Insights from focus groups, word association, and projective mapping. *Journal of Dairy Science*, vol. 100, no. 11, p. 8849-8860. https://doi.org/10.3168/jds.2016-12533

Eurostat. 2019. Agriculture, forestry and Fisheries database. Available at: https://ec.europa.eu/eurostat/data /database?p_p_id=NavTreeportletprod_WAR_NavTreepor tletprod_INSTANCE_nPqeVbPXRmWQ&p_p_lifecycle= 0&p_p_state=normal&p_p_mode=view&p_p_col_id=colu mn-2&p_p_col_pos=1&p_p_col_count=2

Friedl, A., Pondorfer, A., Schmidt, U. 2019. Gender differences in social risk taking. *Journal of Economic Psychology*, In press,

https://doi.org/10.1016/j.joep.2019.06.005

Golian, J., Nagyová, Ľ., Andocsová, A., Zajác, P., Palkovič, J. 2018. Food safety from consumer perspective: health safety. *Potravinarstvo Slovak Journal of Food Sciences*, vol. 12, no. 1, p. 313-322. https://doi.org/10.5219/917

Kim, K., Reicks, M., Sjoberg, S. 2003. Applying the Theory of Planned Behavior to Predict Dairy Product Consumption by Older Adults. *Journal of Nutrition Education and Behavior*, vol. 35, no. 6, p. 294-301. https://doi.org/10.1016/S1499-4046(06)60343-6

Kozelová, D., Mura, L., Matejková, E., Lopašovský, Ľ., Vietoris, V., Mendelová, A., Bezáková, M., Chreneková, M. 2011. Organic products, consumer behavior on market and European organic product market situation. *Potravinarstvo*, vol. 5, no. 3, p. 20-26. https://doi.org/10.5219/96

Kubicová, Ľ, Habánová, M. 2012. Development of milk consumption and marketing analysis of its demand. *Potravinarstvo*, vol. 6, no. 4, p. 66-72. https://doi.org/10.5219/236

Kubicová, Ľ., Predanocyová, K., Kádeková, Z. 2019. The importance of milk and dairy products consumption as a part of rational nutrition. *Potravinarstvo Slovak Journal of Food Sciences*, vol. 13, no. 1, p. 234-243. https://doi.org/10.5219/1050

Kumpulainen, T., Vainio, A., Sandell, M., Hopia, A. 2018a. How young people in Finland respond to information about the origin of food products: The role of value orientations and product type. *Food Quality and Preference*, vol. 68, p. 173-182. https://doi.org/10.1016/j.foodqual.2018.03.004

Kumpulainen, T., Vainio, A., Sandell, M., Hopia, A. 2018b. The effect of gender, age and product type on the origin induced food product experience among young consumers in Finland. *Appetite*, vol. 123, p. 101-107. https://doi.org/10.1016/j.appet.2017.12.011

Li, Y., Zeng, Y. 2019. The impact of top executive gender on asset prices: Evidence from stock price crash risk. *Journal* of Corporate Finance, In Press. https://doi.org/10.1016/j.jcorpfin.2019.07.005

Lockshin, L., Corsi, A. M. 2012. Consumer behaviour for wine 2.0: A review since 2003 and future directions. *Wine*

Economics and Policy, vol. 1, no. 1, p. 2-23. https://doi.org/10.1016/j.wep.2012.11.003

Mansoora, A. 2017. A Study on Impact of Gender Differences on Customer Satisfaction, Case of Educational Sphere. *Journal of International Business Research and Marketing*, vol. 3, no. 1, p. 14-18. https://doi.org/10.18775/jibrm.1849-8558.2015.31.3002

Melton, L. J., Thamer M, Ray N. F., Chan, J. K., Chesnut, C. H., Einhorn, T. A., Johnston, C. C., Raisz, L. G., Silverman, S. L., Siris, E. S. 1997. Fractures attributable to osteoporosis: report from the National Osteoporosis Foundation, *Journal of Bone and Mineral Research*, vol. 12, no. 1, p. 16-23. https://doi.org/10.1359/jbmr.1997.12.1.16

Miller, R. G. 1970. *Simultaneous Statistical Inference*. McGraw-Hill Book Comp., New York, 272 p. https://doi.org/10.1002/bimj.19700120508

Mittelhammer, R. C., Judge, G. G., Miller, D. J. 2000. *Econometric Foundations*. Cambridge University Press, 784 p. ISBN 978-0-521-62394-0.

Qu, Q. X., Guo, F. 2019. Can eye movements be effectively measured to assess product design?: Gender differences should be considered. *International Journal of Industrial Ergonomics*, vol. 72, p. 281-289. https://doi.org/10.1016/j.ergon.2019.06.006

Rosstat. 2019. Agriculture Main Indicators. Available at: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/en/f igures/agriculture/

Ruxton, G. D., Beauchamp, G. 2008. Some suggestions about appropriate use of the Kruskal-Wallis test. *Animal Behaviour*, vol. 76, no. 3, p. 1083-1087. https://doi.org/10.1016/j.anbehav.2008.04.011

SÚSR. 2019. Hrubá živošíšna produkcia podľa komodít. (Gross livestock production by commodity). DATA cube. (In Slovak) Available at: http://datacube.statistics.sk/#!/view/sk/VBD_SLOVSTAT/pl2 019rs/Hrub%C3%A1%20%C5%BEivo%C4%8D%C3%AD

%C5%A1na%20produkcia%20pod%C4%BEa%20komod%C 3%ADt%20%5Bpl2019rs%5D

Thelwall, M., Stuart, E. 2019. She's Reddit: A source of statistically significant gendered interest information? *Information Processing & Management*, vol. 56, no. 4, p. 1543-1558. https://doi.org/10.1016/j.ipm.2018.10.007

Thøgersen, J., Pedersen, S., Aschemann-Witzel, J. 2019. The impact of organic certification and country of origin on consumer food choice in developed and emerging economies. *Food Quality and Preference*, vol. 72, p. 10-30. https://doi.org/10.1016/j.foodqual.2018.09.003

United Nations. 1975. Report of the World Food Conference. Rome, 1974. New York, 1975. 70 p., Available at:

https://digitallibrary.un.org/record/701143/files/E_CONF. 65_20-EN.pdf84-99

Valdani, E., Arbore, A., 2015. Marketing Strategies. In Wright, J. D. International Encyclopedia of the Social & Behavioral Sciences. Second Edition, Elsevier, p. 555-558. ISBN 978-0-08-097087-5. https://doi.org/10.1016/B978-0-08-097086-8.73026-1

Witek, L. 2016. Influence of Socio-demographic Characteristics of Consumers on Attitudes Towards Cause Related Marketing. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, vol. 64, p. 2173-2182. https://doi.org/10.11118/actaun201664062173

World Bank. 2019. Economy & Growth DATA Available at: https://data.worldbank.org/topic/economyand-growth?view=chart

Potravinarstvo Slovak Journal of Food Sciences

Yang, M. 2018. International entrepreneurial marketing strategies of MNCs: Bricolage as practiced by marketing managers. *International Business Review*, vol. 27, no. 5, p. 1045-1056. https://doi.org/10.1016/j.ibusrev.2018.03.004

Zhu, B., Baesens, B., vanden Broucke, S. K. L. M. 2017. An empirical comparison of techniques for the class imbalance problem in churn prediction. *Information Sciences*, vol. 408, p. 84-99. https://doi.org/10.1016/j.ins.2017.04.015

Zingone, F., Bucci, Ch., Iovino, P., Ciacci, C. 2017. Consumption of milk and dairy products: Facts and figures. *Nutrition*, vol. 33, p. 322-325. https://doi.org/10.1016/j.nut.2016.07.019

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