INVESTIGATION OF CONSUMER BEHAVIOUR AT SELECTED MARKET COMMODITY

Andrej Géci, Eudmila Nagyová, Stanislav Mokrý, Jana Rybanská

ABSTRACT
Consumer behavior is an unexplored area of life for all buyers and sellers alike. Knowledge of consumer behavior brings better market orientation and more consistent establishment of individual products in consumers' shopping baskets. In examining this behavior, the authors of the paper focus on questions such as why, how, where, when, and how much consumers are willing and able to buy at a particular market price. The behavior in question is influenced by several factors (cultural, social, psychological and personality) that influence the final consumer decisions. The main objective of the present document is to evaluate consumer behavior, their purchasing preferences and also to make decisions when buying a particular food product – tea. The primary data were obtained through a questionnaire survey carried out on a sample of 640 respondents. The questionnaire was divided into two basic parts - the demographic part and the part dealing with consumer behavior at the selected market commodity. In the questionnaire processing the respondents were filtered based on their answers. The research has shown that more than 78% of respondents consume tea while women consume it more (50%). Flavor (56.3%) proved to be the most important factor in the selection of a particular tea. Almost half of the respondents reported consuming cut tea (46.5%). In the present document, assumptions were formulated which serve for a deeper analysis of the issue. The relevance of the formulated assumptions was verified by the XLSTAT statistical software. Data were evaluated by qualitative statistics – Chi-square test of good compliance, Fisher's exact test, Mann Whitney test and Friedman test.

Keywords: consumer; consumer behavior; tea; shopping behavior; purchase decision

INTRODUCTION
Consumer behavior is one of the constantly evolving and changing elements of today's world (Carlucci et al., 2015). It can be defined as a certain behavioral process that reflects its internal and external properties (Goel et al., 2010). Through the cooperation of the above-mentioned characteristics, consumers make their purchasing decisions in the market of goods and services (Marriott et al., 2017; Pierański et al., 2017). Consumer behavior is generally defined as the behavior of people or groups of people whose primary role in this process is to meet needs at their best possible level (King et al., 2010; Hoffman and Novak, 2015). There are several factors influencing good consumer choice (Kacen et al., 2012). Among the basic influencing components are mainly price but also brand, quantity, and ultimately consumer preferences (Huang et al., 2004). Yoon et al. (2012) claims that food trends and eating habits also influence consumer decision-making. Habit also plays an important role in purchasing behavior, i.e. what customers and consumers are taught to buy (Major and Vincze, 2010). The habit is that consumers are willing to reach for a product they know, trust, and are satisfied with (Behrens et al., 2010). An important factor in the purchase is also the impulse, i.e. consumers buy without a specific idea (Amos et al., 2014). Last but not least, the consumer is also affected by advertising, which has a great weight in creating consumer opinion on a specific product (Kopalle and Lehmann, 2006). Consumer opinion is created by direct and indirect marketing forms. According to Chikweche and Fletcher (2010), direct form of marketing has more influence on decision-making than methods based on different kinds of other media (television, press, radio).

In general, consumers can be characterized as any individual who satisfies their needs by purchasing goods and services (Hoyer et al., 2010; Golian et al., 2018). In terms of economic definitions, the consumer is an individual, an enterprise, a company or a family. So, consumers are actually all those who buy and consume goods and services (Priest et al., 2013; Kozelová et al., 2011). Consequently, consumers are all people purchasing
in the market of goods and services. However, there are also customers in this market. The difference between customers and consumers is not perceived by ordinary people. However, for the professional public the difference is very significant. Bordalo et al. (2013) states that a consumer is a person who purchases and also consumes purchased goods. The customer is only the person who purchases the goods but does not consume them (Vivek et al., 2014; Mokrý et al., 2016).

The consumer is able to orientate himself in the market of goods and services on the basis of several of the above mentioned factors (Bogomolova et al., 2018). More specifically, the document focuses on consumer behavior in the tea market. This commodity is considered as one of the most popular and cheapest drinks worldwide (Raynolds and Ngewangu, 2010; Trembecká et al., 2013). Given its increasing demand, this commodity is considered to be one of the main elements of world trade (Lee and Chambers, 2010; Godoy et al., 2013).

Scientific hypothesis
Assumption no. 1: We assume that there is no dependence between whether sex has an impact on tea drinking.
Assumption no. 2: We assume that there are differences between the influence of individual factors on the purchase of teas.
Assumption no. 3: We assume that there is no dependence on whether the respondent's age affects the preferred type of tea.
Assumption no. 4: We assume that there is a dependence on whether the respondent's age affects the consumption of even loose teas.

MATERIAL AND METHODOLOGY
The methodological part of the paper was based on a questionnaire survey, which was carried out both in physical form and through the electronic platform Google Forms. The questionnaire survey started in January and lasted until May in 2019. The survey was carried out on the territory of the Slovak Republic. We obtained a sample of 640 respondents of different ages. The goal was to get a relevant number of responses to the questionnaire survey. The survey was divided into two parts. The first part dealt with the demographic categorization of respondents and the second part focused on consumer behavior in the market of a particular food product. The main task of the questionnaire survey was to find out the awareness and behavior of individual consumers.

The survey was used to identify buying preferences, consumer behavior and decisions within a particular food market.

The structure of respondents by sex was as follows – 58% women and 42% men. The age structure was divided into 4 age categories and ranged from 21 to 51 years and over. The largest representation was in the age structure from 21 to 30 years (42.2%). The highest level of education was secondary school with GCSE (42%). More than 1/3 of respondents have finished university. Regarding to the economic status of respondents, most of them (49%) are employed. The second largest component was students – 200 respondents. In terms of marital status, most respondents marked free / single status. Their number reached more than half of the survey participants (54%). The second most marked response was the possibility of married. There were 39% of such respondents.

Statistic analysis
Prior to the questionnaire investigation, scientific assumptions were established and subsequently confirmed or rejected by selected statistical methods. The verification of the assumptions was carried out using the XLSTAT statistical software. Pivot tables that were processed in the program were applied to the obtained primary data, and the data were then evaluated using qualitative statistics – Chi-kvadrat goodness-to-fit test, Fisher's exact test, Mann Whitney test and Friedman test.

We will determine the probability level – alpha (α = 0.05), which will be compared to the significance level (p-value). Based on alpha (α), we can evaluate the hypothesis with the p-value comparison. If p-value is lower than alpha (α), we will refuse H0. If p-value is higher than alpha (α), we will not refuse H0.

RESULTS AND DISCUSSION
640 respondents participated in the survey. Primary data were obtained to a greater extent from women than men. The number of women in the research participated 58%, with men accounting for 272 respondents (42%). Most respondents were between the ages from 21 to 30 (42%). This age limit will be the most important for us as we assume the most frequent consumption of tea. Other age groups were approximately equal. The second largest group was in age from 31 to 50 years old – 133 respondents. Furthermore, the age limit was from 31 to 40 years. Representation in this category was 20%. The last place with the number of 110 respondents placed the age limit of 51 years and more. Almost half of the respondents reported that their highest education was secondary school with a school leaving exam (42%). More than 1/3 of respondents have completed university. Regarding the economic status of respondents, most of them (49%) are employed. The second largest component were students - 200 respondents. The last and significant question of the demographic part was the respondents' net monthly income (Figure 1).

The figure clearly shows that the most respondents have a monthly income between 501€ and 800€. The second place with 18.5% ranked from 801€ to 1.000€. Least of respondents declare their monthly income was between 151€ and 300€. This result is probably due to the fact that some respondents still attend higher education and thus their income opportunities are limited.

The following group of questions dealt with questions about a particular type of food product we selected. We decided to focus our further implementation on a particular food type – tea. More specifically, we focused on consumption, purchase and related matters.

The first and basic question of this survey was the one that dealt with tea consumption. As shown in the Table 1 below, most of the respondents said they consumed tea.
From the information mentioned above we can state that most of the respondents consume tea. 78.3% of respondents expressed a positive answer when consuming this kind of not only hot but also cold drink. Positive figures for tea consumption were also achieved by a survey by the team of Lee et al. (2010). 21.7% of respondents have a negative relation to tea consumption.

Figure 2 shows that women consume tea much more than men. If we look at the negative answers, we can see that 50 women do not consume tea. What is lower than men (89 respondents). A greater positive attitude of women to tea drinking has also been found in a survey by Hegarty et al. (2000).

Based on the factors, statistical observations were made on the presumption - whether there was any dependency on whether sex had an impact on tea drinking.

$H_0$: There is no correlation between whether sex affects tea drinking.

$H_1$: There is a correlation between whether sex affects tea drinking.

We will use $p$-value from Fisher's exact test to verify the hypotheses. Testing will be carried out at the selected level of 5% significance, i.e. alpha will be 0.05. In this case, $p$-value = 0.0001, which means that we reject the null hypothesis. We accept the alternative hypothesis and assert that with 95% confidence there is a dependency on whether sex has an impact on tea drinking. Based on the test results, we consider our assumption to be incorrect.

Subsequently, the Figure 2, which was implemented through the XLSTAT statistical program, is also presented. That means that the survey is over for some respondents. They filtered out respondents that do not consume tea, so that testing could continue to evaluate the primary data collected. From the original number of 640 respondents, the evaluation continues with 501 respondents.

The following question concerned the frequency of tea consumption. We can say that a large number of respondents drink tea very often. Most respondents said they consume tea every day (27.9%).

<table>
<thead>
<tr>
<th>Consumption of tea</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>501</td>
<td>78.3</td>
</tr>
<tr>
<td>No</td>
<td>139</td>
<td>21.7</td>
</tr>
</tbody>
</table>

He: There is no correlation between whether sex affects tea drinking.

Hi: There is a correlation between whether sex affects tea drinking.

Table 1 Consumption of tea.
This was followed by a frequency of 1 – 2 times a week, which was indicated by up to 23.3%. The frequency was placed third place, that is 3 – 4 times a week with 24.2%. This frequency of tea consumption is also due to the fact that some people do not drink coffee and thus replace it by tea. Positive tea consumption also results from the drinking regime, as some types of tea do not contain any undesirable substances (especially caffeine) and so people who love tea can consume it (Mineharu et al., 2011). The last place was taken by the possibility of drinking tea occasionally. Only 13.7% identified this option, which is 78 respondents.

Furthermore, we were interested in the specific preferred type of tea among the respondents. As shown in the Figure 3, the most preferred type of tea is herbal. The figure shows that as many as 33.9% of respondents stated herbal tea preference. This type of tea, according to a team of authors Bobková et al. (2015), is very popular with consumers because herbs are attributed to various medicinal effects (colds, diabetes, digestive problems, etc.). The importance of drinking herbal teas has also been confirmed in a survey by Deetae et al. (2012) and Ulusoy et al. (2009). Fruit tea was on the second place (27.5%) and green tea was ranked as the third one with 22.4%. White tea is preferred by the smallest number of respondents (0.6%).

The following group of questions focused on respondents’ buying preferences when buying teas. The questions were focused on the individual factors of the impact of the choice of a particular tea, the place of purchase of tea and also the price level that respondents are willing to spend for packing the tea. The first question was focused on selected factors that influence respondents when buying tea. The respondents were to give a rating of 1 to 5 with these factors (Figure 4). In this case, number 1 was the least important factor, and number 5 was the most important factor in choosing tea.
Figure 4 shows that the most important factor in tea selection is the particular flavor. As many as 56.3% of respondents stated that flavors were important. Taste was also found to be the most important factor in tea selection in a survey by Cho et al. (2006). The brand ended up on the second place – 30.7%. The brand is important in the selection of teas for consumers, and this has been confirmed in a survey by Lee and Liao (2009). In addition, a very important factor has been placed in determining the choice of most products – price. This factor was on the third place with 35.5%. The last two places ended with packaging and advertising. For consumers, the color of the packaging does not play a big role and this survey also confirmed that neither advertising. The reason may be the time we live in, which is very saturated with online marketing tools.

Based on the factors, statistical observations were made on the assumption – whether there are differences between the influence of individual factors on the purchase of teas. $H_0$: There are no differences between the influence of individual factors on the purchase of teas. $H_1$: There are differences between the influence of individual factors on the purchase of teas.

The $p$-value from Friedman's test will be used to verify the hypotheses. Testing will be carried out at the selected level of 5% significance, i.e. alpha will be 0.05. In this case, $p$-value = 0.0001, which means that we reject the null hypothesis. We accept the alternative hypothesis and argue that with 95% reliability there are differences between the influence of individual factors on the purchase of teas. Based on the results of Friedman's test, we consider our assumption to be correct.

We used XLSTAT statistical software to verify the impact of factors on the consumer's decision-making process when buying teas. Table 2 again confirmed that the factor – flavor has the greatest impact.

### Table 2 Strength of influence of individual factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Strength</th>
<th>Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising</td>
<td>1.881</td>
<td>A</td>
</tr>
<tr>
<td>Packaging</td>
<td>2.302</td>
<td>B</td>
</tr>
<tr>
<td>Price</td>
<td>3.139</td>
<td>C</td>
</tr>
<tr>
<td>Brand</td>
<td>3.404</td>
<td>C</td>
</tr>
<tr>
<td>Flavor</td>
<td>4.273</td>
<td>D</td>
</tr>
</tbody>
</table>

In connection with the previous question, the Mann Whitney test was also used to investigate the dependence of gender and each of the factors (Figure 5). It follows that only one factor (shown in red) showed dependency.

Other dependencies were not demonstrated by the test as their $p$-value was higher than the alpha value (Table 3).

Another question, which falls under the category of consumer buying preferences, was the question of buying, i.e. respondents were asked where they most often buy tea. Most of the respondents buy tea in classic shops, it is up to 80.4%. The assumption of such a large number is clearly that respondents also buy tea during normal shop purchases. This saves effort but reduces the experience of taste, as in traditional shops (supermarket, hypermarket, retail stores) mostly loose teas are not sold (Kalla and Arora, 2010). Pleasing news is that the second most frequently purchased place ended in specialized stores. The unflattering news is that only 10.8% of respondents buy tea in such shops. Tea shop, pharmacy and various e-shops and online stores have reached approximately the same percentage.

The last question about consumer buying preferences was price. Specifically, we asked for the price they are willing to spend on packaging tea. Most respondents said they were willing to spend between 1.1€ and 3€ on packaging for tea. 62.3% of respondents indicated this answer. Commonly available teas in classic stores usually fall within this price range. The second most commonly referred response was the amount from 3.1€ to 6€. This price range allows respondents to purchase teas not only in traditional shops, but also in specialized stores. 26.1% of respondents voted for this price range. Other price ranges had approximately the same rating from respondents. Interestingly, 5 respondents saw a price range that they are willing to spend on packing tea, that is 14.1€ or more.
The following question dealt with the preferences of consuming selected types of teas. We found the most preferred type of tea. A larger number of respondents prefer teabags (46.5%). This form of tea consumption is the most convenient way of making tea for most respondents (Keuskamp et al., 2013). Loose tea ended up on the second place with 37.7%. In the last place was the type of tea made from fresh ingredients - 15.8%.

Based on the factors, statistical observation was made on the presumption – whether there is any dependence on whether the respondent's age affects the preferred type of tea.

H₀: There is no dependency on whether the age of the respondent affects the preferred type of tea.
H₁: There is a relationship between whether the respondent's age affects the preferred type of tea.

To verify the hypotheses, we use the p-value of the Chi-square test. Testing will be carried out at the selected level of 5% significance, i.e., alpha will be 0.05. In this case, the p-value = 0.0250, which means that we reject the null hypothesis. We accept the alternative hypothesis and say that with 95% confidence there is a dependency on whether the respondent's age affects the preferred type of tea. Based on the results, we also present Figure 6, which was implemented through the statistical program XLSTAT.

It follows that more respondents also consume loose teas. It is 58.1% of respondents. Compared to men and women, we can say that loose tea is consumed more by women than by men. There were 98 men who also consumed loose teas and 193 women.

Based on the factors, statistical observations were made on the presumption - whether there is a dependency on whether the respondent's age also affects the consumption of loose teas.

H₀: There is no dependence on whether the respondent's age affects the consumption of even loose teas.
H₁: There is a correlation between whether the respondent's age affects the consumption of even loose teas.

To verify the hypotheses, we use the p-value of the Chi-square test. Testing will be carried out at the selected level of 5% significance, i.e., alpha will be 0.05. In this case, p-value = 0.0010, which means that we reject the null hypothesis. We accept the alternative hypothesis and assert that with 95% confidence there is a dependence on whether the respondent's age affects the consumption of even loose teas. Based on the results of the Chi-square test, we consider our assumption to be correct.

Figure 6 Output from the statistical program.

Figure 7 Eating loose teas.
CONCLUSION
Based on the survey, we can conclude that most of the respondents do not have a problem with consumption of tea (78.3%). Approximately 1/3 of the respondents consume tea every day. The most frequent consumption, more than 70%, takes place in the comfort of home. Most of the respondents stated that they consume tea mainly in the morning (26.3%). They do not need any special reason to consume it. 34.2% said they always drink tea when they taste it and most often drink herbal tea (33.9%). More than half of the respondents stated that they made a taste-based decision when buying tea. They buy tea mostly in traditional shops (80.4%), where they buy mainly teabags (46.5%) and are willing to spend from 1.1€ to 3€ for packaging tea. 58.1% of respondents also consume loose teas. They prefer it mainly due to quality (43.3%). The most common reason for buying loose teas is for most respondent’s taste – 27.4% and are willing to spend from 2.1€ to 5€ for loose teas.

In conclusion, however, we consider it necessary to state that the use of the concept of sensory marketing may encourage some limitations in practice, eg. preventing the use of olfactory, taste and tactile receptors for packaging. Also, in the aroma of marketing there are some unflattering facts such as allergic reaction or inappropriately chosen fragrance, which is likely to result in a negative assessment of individuals. Likewise, it remains only a matter of time before these concepts are actively used in the communication strategy. A big question mark hangs over the ethical aspect of recruiting respondents, as sensory stimuli are often subliminal without the customer being aware of and responding to them.

REFERENCES
Kozelová, D., Mura, L., Matejková, E., Lopašovský, L., Vietoris, V., Mendelová, A., Bezáková, M., Chrenková, M.


Acknowledgments:
This work was Supported by the project VEGA/0502/17 "Consumer Personality and its impact on emotional behavior and decision making."

Contact address:
*Andrey Géci, Slovak University of Agriculture, Faculty of Economics and Management, Department of Marketing and Trade, Tr. A. Hlinku 2, 949 76 Nitra, Slovakia, Tel.: +42137 641 4835, E-mail: geci.andrej@gmail.com

ORCID: https://orcid.org/0000-0001-7684-0418

Ľudmila Nagyová, Slovak University of Agriculture, Faculty of Economics and Management, Department of Marketing and Trade, Tr. A. Hlinku 2, 949 76 Nitra, Slovakia, Tel.: +42137 6414102, E-mail: ludmila.nagyova@uniag.sk

ORCID: https://orcid.org/0000-0002-5220-2857

Stanislav Mokry, Mendel University in Brno, Faculty of Business and Economics, Department of Marketing and Trade, Zemědělská 1, 613 00 Brno, Czech Republic, Tel.: +42054 5133232, E-mail: stanislav.mokry@mendelu.cz

ORCID: https://orcid.org/0000-0002-5220-2857

Jana Rybanská, Slovak University of Agriculture, Faculty of Economics and Management, Centre of Education and Psychological Counseling, Tr. A. Hlinku 2, 949 76 Nitra, Slovakia, Tel.: +42137 6414898, E-mail: jana.rybanska@uniag.sk

ORCID: https://orcid.org/0000-0002-2310-0114

Corresponding author: *