

HEALTHY AND INNOVATIVE FOOD VERSUS SLOVAK CONSUMER

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ABSTRACT

Consumers are becoming more conscious of the necessity of consuming nutritious food and opting for healthier, more functional food. We consider healthy food with functional benefits to be innovative food. The purpose of the research reported in the paper is to determine the variations in consumer perceptions of rational eating in the Slovak Republic. Even though 48.77% of respondents in the Slovak Republic eat everything and are not interested in rational eating, 43.50% follow it. The study aims to divide customers into groups (way of eating) and identify differences in rational eating perceptions based on gender, the location where they live, level of education, economic status, and net income.

Key words: healthy food, functional food, rational eating

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INTRODUCTION

Healthy eating patterns belong to actual market trends and the current lifestyle of many people. Consequently, it is also a challenging area of interest for food producers, wholesalers, and retailers. They are motivated by changes in eating habits, availability of new ingredients, environmental and medical issues as well. Access of Europeans to healthy, affordable, and sustainable food has become one of the goals of the European Green Deal within the policy area 'From farm to fork'. To design recommendations for the food industry and trade, first, we need to know how

people behave and what the consumer perception towards healthy and innovative food is as we set in the second aim of the study – to identify differences in rational eating perceptions based on gender, the location where they live, level of education, economic status, and net income.

THEORETICAL BACKGROUND

In recent years, both customers and food producers have been increasingly interested in nutritious food. They are both equally interested in identifying the factors that influence the perception of healthfulness.

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Most young consumers are not interested in ensuring proper food safety (Franc-Dąbrowska et al., 2021). At the same time, innovativeness can be considered a strategic tool to improve their market position for agro-food companies (Moravčíková, Tkáč and Mušínská, 2021), however, most farmers claim that they intend to continue their organic production only if financial support is provided (Łuczka and Kalinowski, 2020). Determining which meals are healthful may be a challenge (Motoki et al., 2021). There are no objective criteria for what defines healthy food, it is sometimes characterised as food that is high in nutrients (e.g. low in calories, sodium, and saturated fat) (Lobstein and Davies, 2008). People's food purchasing decisions are influenced by their perceptions of healthfulness (Motoki et al., 2021). In this regard, seeking answers to the following questions on consumer attitudes toward innovative and functional foods should be the first step. In the research of Gutkowska and Czarnecki (2020) we find three logically related research questions:

- What do customers think of phrases like 'innovative food product' and 'functional food', and what changes do they notice in the food industry? (Component of knowledge).
- What is the public's perception of the food market's recent developments, as well as a creative and functional food and its purchase? (Component of emotion).
- How do customers react to new and functional food items, or how do they intend to react?

Ingredients, product category (e.g. vegetable, meat, honey), packaging, nutritional labels, food origin, added health benefits associated with eating specific foods are all factors that influence people's perceptions of healthy food (Plasek, Lakner and Temesi, 2020). As an example of a healthy and innovative product, we can mention 'honey' with spices, herbs, dried fruits, pollen, and propolis (Šedík, Pocol and Ivanišová, 2020).

MATERIALS AND METHODS

Data about rational eating comes from the questionnaire survey 'Consumer survey for healthy and functional foods'. The survey was attended by

1 189 respondents living in the Slovak Republic, who were randomly selected. Chi-square test was used to find a statistically significant difference between factors if theoretical counts were more than 5 and Fisher's test if theoretical counts were lower than 5 in contingency tables. We used the XL stat and Microsoft Excel to evaluate the results.

We set hypotheses to find answers concerning approaches to eating and rational eating:

- H1: There is no statistically significant difference in approaches to eating between women and men.
- H2: There is no statistically significant difference in approaches to eating between living in town and village.
- H3: There is no statistically significant difference between women and men in terms of rational food.
- H4: There is no statistically significant difference between the respondents living in the city and village in terms of rational food.
- H5: There is no statistically significant difference between the levels of education of the respondents in terms of rational food.
- H6: There is no statistically significant difference between the economic positions of the respondents in terms of rational food.
- H7: There is no statistically significant difference between the net monthly incomes of the respondents in terms of rational food.

RESEARCH RESULTS AND DISCUSSION

The first question 'Which group of consumers does you belong to' shows that the biggest part of respondents (48.77%) consumes everything, and they do not deal with rational food as is described in Figure 1. Another big group of respondents (43.50%) prefers balanced food (rational eating) – this main group of consumers, we will deal with further in the paper.

Only 1.67% of consumers consume mostly fast food and semi-finished products, 4.22% are flexitarians, so they reduce the consumption of meat and meat products, 1.05% are vegetarians, and only 0.7% are vegans. There are statistically significant differences in approaches to eating between women and

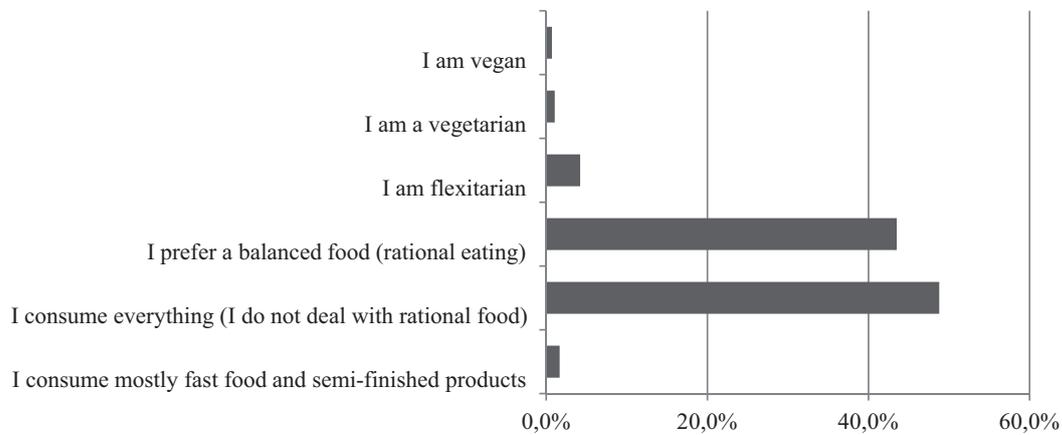


Figure 1. Distribution of the consumer's group

Source: own empirical research.

men because p -value was lower than 0.0001, we reject H1. Differences in food consumption by gender are shown in Figure 2. Based on the above, we can say that men consume mostly fast food and semi-finished product more than women. It follows that women eat more rationally than men – women reduce the consumption of meat and meat products, there are more women vegetarian and vegan than men.

A p -value lower than 0.0002 rejected H2, so we also can say, that people living in town and village have different attitudes towards eating groups. People living in the city consume fast food and semi-finished

product more than people living in a village. People living in a village grow their vegetables and fruits and keep farm animals because they have their gardens. There are more flexitarians in the village, but vegans and vegetarians are more represented in cities. People living in a village prefer balanced food a little more than people living in a city.

From the point of view of rational eating, we have a total of 495 respondents eating rationally: 57.65% women and 42.35% men. City dwellers account for 47.88% of respondents and villagers for 52.12%. By Chi-square test we statistically proved differences

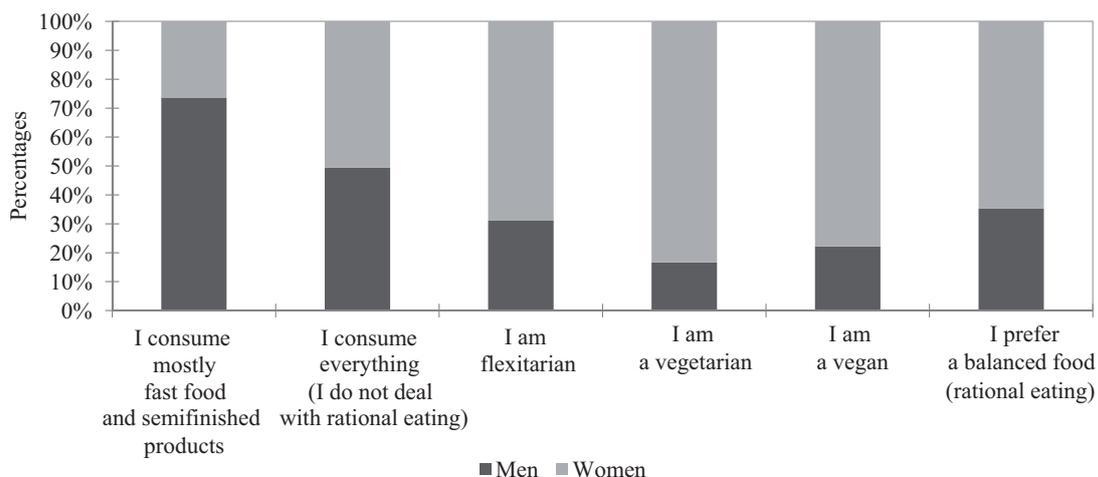


Figure 2. Differences in food consumption by gender

Source: own empirical research.

between women and men in terms of rational food, p -value 0.01, so we reject H3. Differences in rational eating by the place where respondents come from have been confirmed by the Chi-square test, p -value was lower than alpha (0.01), so there is a statistically significant difference between the respondents living in the city and village in terms of rational food and we reject H4. People living in a village are interested in rational eating less than people living in a city. From the perspective of the level of education

of respondents, we reject H5 ($p < 0.001$), so there is a statistically significant difference between the level of education of the respondents in terms of rational food as Figure 3 shown. People with higher education prefer rational eating the most and people with basic education the least. Secondary education people (without the general certificate of secondary education – GCSE) and respondents with basic education do not prefer rational eating as much as respondents with GCSE and higher/vocational education.

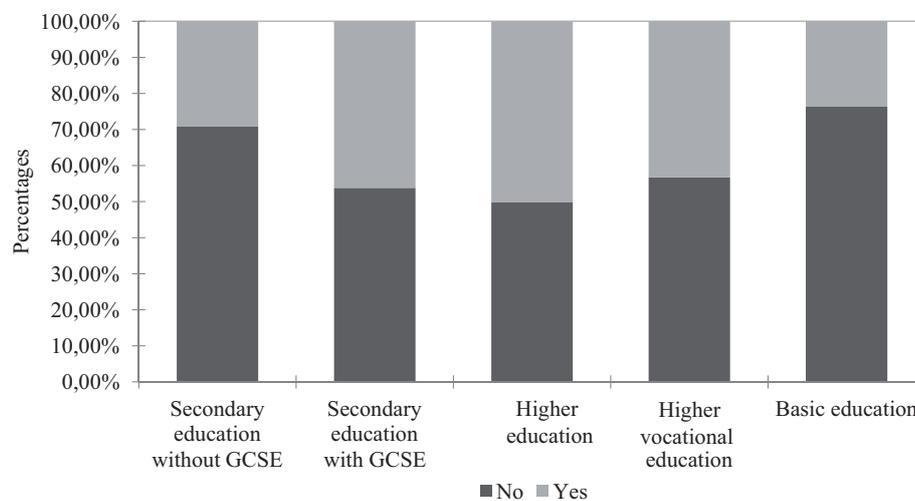


Figure 3. Differences in evaluation based on the level of education of the respondents in terms of rational eating
Source: own empirical research.

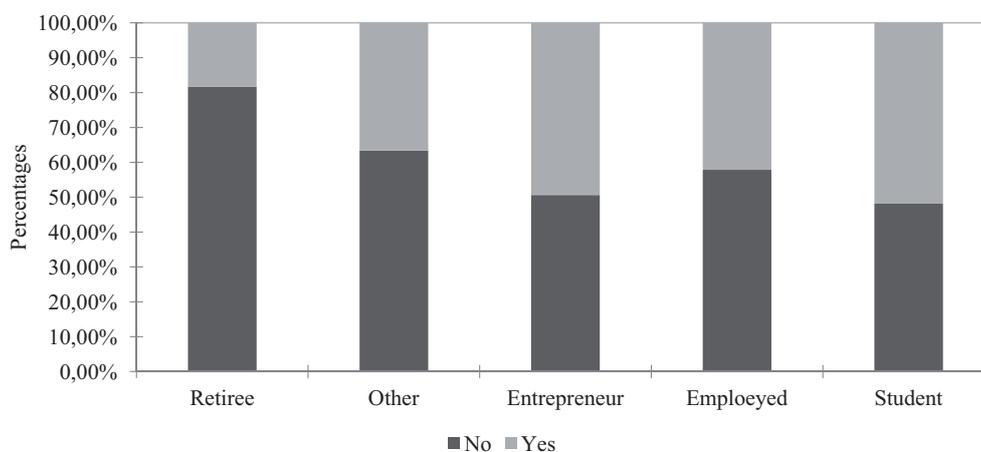


Figure 4. Differences in evaluation based on the economic position of the respondents in terms of rational eating
Source: own empirical research.

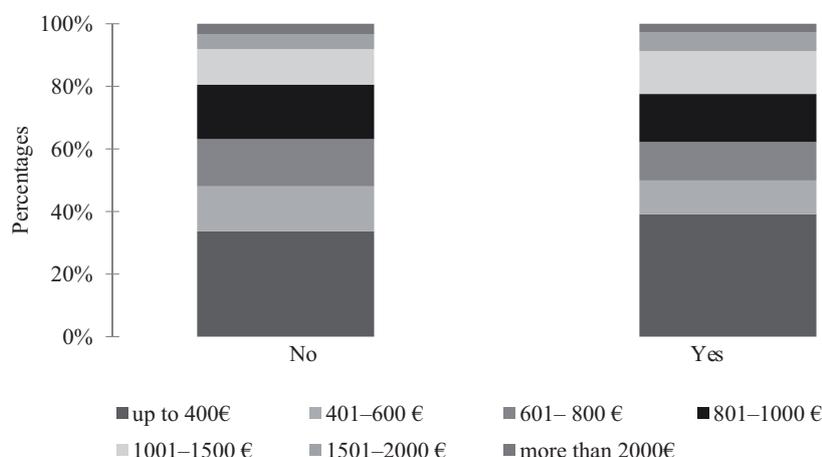


Figure 5. Differences in evaluation based on the net monthly income of the respondents in terms of rational eating
Source: own empirical research.

Figure 4 shows the differences in the perception of rational eating in terms of economics position which confirms the Chi-square test with a p -value (0.0001) lower than alpha, so we reject H6. Retirees are the least attached to rational eating, on the other side students are the most attached. Employed people marked the answer 'No' more than the answer 'Yes' and entrepreneurs evaluated these factors in the same way.

The last hypothesis H7 was accepted. There is no statistically significant difference between the net monthly incomes of the respondents in terms of rational food as you can see in Figure 5. By Chi-square test p -value (0.113) is greater than the significance level alpha (0.05).

CONCLUSION

Following the questions by Gutkowska and Czarnecki, 61.16% of respondents know what is 'innovative or functional' food. They consider these foods to be healthier and better, but more expensive. As for the changes, they are noticing more organic foodstuff in stores. The biggest part (48.77%) of all consumers in Slovakia are consumers which consume everything (do not deal with rational eating). The second, but very important part (43.5%) is made up of consumers which prefer balanced food. Women are more vegetarians and vegan; they

reduce consumption of meat and meat products more than men. Men consume mostly fast food and semi-finished product more than women. People living in the city consume fast food and semi-finished product more than people living in the village – because they have, they own gardens. In the Slovak Republic, more flexitarians are living in the village, but vegans and vegetarians are more represented in cities. In general, people living in the village prefer balanced food a little less than people living in the city. From the point of view of rational eating in the Slovak Republic, women prefer rational eating more than men. People with higher education prefer rational eating the most and people with basic education the least. Retirees are the least attached to rational eating, on the other side students are the most attached. No differences were found in the Slovak Republic in terms of the net monthly income.

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