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SCIENTIFIC PAPER

SEGMENTING HUNGARIAN PEOPLE BASED ON HEALTHY EATING

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Abstract: *Relying on customer trends healthy eating, which is one aspect of healthy lifestyle is becoming more and more popular. The aim of this study was to understand the healthy eating style of Hungarian adult consumers. An online empirical research with a sample of 1563 respondents (58.7% females and 41.3% males) was conducted in November 2018. Considering healthy eating two factors, namely the choice of healthy foods and the avoidance of unhealthy foods could be distinguished. A hierarchical cluster analysis was conducted to segment consumers. Four groups of consumers were identified: unhealthy food avoiders (20.3%), rejecters (11.8%), neutrals (26.2%) and healthy food choosers (14.7%). Unhealthy food avoiders are seniors. Rejecters are blue collar workers and have financial problems. Healthy food choosers live in families with children over 10 and do not have weight problems. This study is useful for the health sector and the government since targeted marketing programs can be planned to change eating behavior. To decrease overweight and obesity is the goal of all society, especially in developed countries. To increase the well-being of people and their quality of life educating social marketing campaigns are necessary with the aim of raising their awareness and explaining the basic principles of a healthy diet..*

Keywords: *healthy eating, perception, segmentation*
(JEL Classification: 112, M30, M39)

INTRODUCTION

Researchers (törőcsik, 2014) identified the 'extension of health market', as one of the major trend in the 21st century. Households spend higher and higher amount of money the prevention and development of health and healing in case of illnesses. Dudás (2011) identified the elements of conscious consumer behavior and health consciousness is one aspect of that which means an approach, or a behavior and an activity to be healthier in the long run. One element of health consciousness is healthy and moderate food intake. Considering the most up-to-date food trends it can be said that plant based diet is becoming more and more popular. Previously meat was an important source of nutrient but nowadays there are a lot of skepticism about it such as healthiness, environmental and sustainability issues. There is a great demand for local fresh fruit and vegetable since vegetables become the main dishes. Vegetable symbolizes freshness, innocence and health (trendinspiracio.Hu/aktualis-trendek-2019/). Health and healthy eating is an important topic for people. Relying on the most up-to-date researches of gfk hungary research institute (2019) hungarian consumers put more emphasis on the healthiness of food products. People eat regularly especially older people however younger people do not pay attention to eat regularly. Most of the hungarians eat three times a day and breakfast and lunch are the most important occasions of eating. When they purchase food products four aspects are the most important: taste, healthiness, ingredients and previous positive experiences (gfk research institute, 2019).

Considering the eating behavior of hungarian people the results of the hungarian diet and nutritional status survey (otáp - országos táplálkozás és tápláltsági állapot vizsgálat, 2014) can show a good overlook (nagy et al. 2017). The results of the latest survey show that hungarian adults are not so healthy. Mainly females had increased their fat intake especially their saturated fat intake. The fiber intake had shown a decreasing and added sugar intake had shown an increasing tendency. The vitamin intake was inappropriate of adults and the population could decrease their salt-intake but it

was still above the norm by 2.5 Times. Considering fruit and vegetable (without potato) consumption females (346 g/day) were in a better situation than males (330 g/day) but it was still below the suggested level (400g/day). Cereals (86.3 Kg/capita/year) fruit and vegetable together with potato (81.8 Kg/capita/year) were the most important sources of food intake in 2017. People consumed more pastry (bakery products with white meal) and flavored cereals and sweeteners (egészségjelentés, 2017; ksh, 2018).

The inappropriate eating habits are responsible for overweight and obesity which are considered to be the world's epidemic. Relying on the most up-to-date statistics of world health organization (who) in 2017 the average body mass index (bmi) of hungarian adult population was 27.52 Kg/m2, which was a little bit lower among females (26.65 Kg/m2) than among males (28.39 Kg/m2). 30% Of the total population is obese. According to ncd risc living in rural areas have a higher level of average bmi than people living in cities. Relying on the health survey of ksh (central statistical office) from 2014, more than half of the entire hungarian population (54%) was overweight ($25 \leq bmi < 30$) or obese ($bmi > 30$). This rate was higher in case of men (62%) than in case of women (49%). Based on age it can be said that 23% of young females were overweight or obese and 39% of young males. As people are getting older their bmi is increasing, too. 53% Of middle aged females and 71% of middle aged males had problems with their weight. Among older people weight problems were even more common, 65% of elderly women and 72% of elderly men suffered from overweight and obesity (european health interview survey, 2014).

In this paper the healthy eating style of hungarian people is analyzed from a marketing viewpoint. After the theoretical background the result of an empirical quantitative study is presented.

MATERIALS AND METHODS

Perception of healthy eating can be defined as 'the public's and health professionals' understandings, views, attitudes and beliefs about healthy eating and healthy foods (Paquette, 2005: 15). Taking into consideration healthy eating or healthy diet the WHO principles are the following:

- Fruit, vegetables, legumes, nuts and whole grains should be the most important sources of nutrients. At least 400 g (i.e. five portions) of fruit and vegetables per day should be consumed.
- Less than 10% of total energy intake should come from free sugars.
- Less than 30% of total energy intake should come from fats. Unsaturated fats are preferable to saturated fats. It is suggested that the intake of saturated fats be reduced to less than 10% of total energy intake and trans-fats to less than 1% of total energy intake. In particular, industrially-produced trans-fats are not part of a healthy diet and should be avoided.
- Less than 5 g of salt per day should be consumed (who.int/news-room/fact-sheets/detail/healthy-diet).

More authors (Paquette, 2005 and Lake et al. 2007) found that healthy eating influence food intake. Fruits and vegetables are important elements of healthy eating. Naturalness, fat, sugar and salt contents are other important aspects of healthy eating perception. Dutta-Bergman (2004) developed a scale containing 11 items to measure healthy eating one aspect of health consciousness. The scale contains attitude statements related to intention to eat nutritious foods with vitamins, calcium, fiber and avoid unhealthy foods with high cholesterol, fat, salt and sugar content.

More international researches focused on segmenting people based on their healthy or unhealthy eating behavior (André et al. 2017; Heerman et al. 2017, Psouni et al. 2016; LV et al., 2011). Some papers concentrated on children (Sabbe et al 2008) or adolescents (Cuenca-García et al. 2013, MATIAS et al. 2018) and clustered youths based on eating behavior and physical activity or sedentary behavior. These studies analyzed the demographics of each group and found gender differences. WAH (2016) and LV et al. (2011) also emphasized the healthy eating behavior of women and the unhealthy eating behavior of men. Males consume more calorie-rich food, junk food and oily food with carbohydrate. Females care more about their body weight and eat less and eat more fruit and vegetable (WAH, 2016). GRACA et al. (2015) highlighted that meat was more important for males and females were willing to adopt a more plant-based diet to be healthier.

Among international researches more empirical results could be found that investigated a special consumer group (Tanton et al. 2015; André et al. 2017; Benedet et al. 2017). Tanton et al. (2015) analyzed the eating behavior of British university students whose lifestyle is considered to be risky when it comes about eating. The researchers used the consumption of snacks, convenience, and fast foods and fruit and vegetable. They identified four segments: risky, mixed, moderate and favorable eating behavior. The majority of university students had an unfavorable eating behavior. Anrdé et al. (2017) categorized senior Norwegian citizens (65+) based on similarities of food consumption. They distinguished people with unhealthy food pattern (21.5%) and people with healthy food pattern (78.5%). The first group of people consumed a larger amount of food and beverages such as chocolate/candy, pasta, sausages, sugar free and sugary soft drinks, whole milk, juice, white bread and semi-grain bread. The second group of people consumed more fruit, vegetable, boiled potato, oily fish, whole-grain bread and water. Benedet et al. (2017) used clustering of four unhealthy food habits (low intake of fruits, low intake of vegetables, high intake of candy, and high intake of fried snacks) among Brazilian workers. They found that unhealthy food habits were more frequent among women workers with a lower education level, and those living without a partner. Heerman and his co-authors (2017) identified eating styles from six eating behaviors (frequency of eating healthy food, frequency of eating unhealthy food, breakfast frequency, frequency of snacking, overall diet quality and problem eating behaviors) and tested their association with BMI among adults. Four eating styles were identified and defined by healthy vs. unhealthy diet patterns and engagement in problem eating behaviors. Unhealthy and unhealthy problem eating groups had significantly higher BMI than healthy eaters. Psouni et al. (2016) investigated the patterns of eating and physical activity attitudes and behaviors in relation to BMI. They also identified healthy and unhealthy group of Greek people. Healthy people were related to healthier exercise and eating behavior. They had normal BMI. Unhealthy people were related to lower level of exercise and healthy eating. They belonged to the overweight category considering their BMI.

The relevance of this topic can be explained by an initiation of SZONDA IPSOS in 2007. The research institute investigated the Hungarian population based on health styles (smoking, alcohol consumption, physical activity, nutrition and control weight) in a longitudinal study. A similar research was conducted in Netherland (Vries et al. 2008). They identified clusters based on five important preventive health behaviors, namely non-smoking, alcohol use, fruit consumption, vegetable consumption and physical exercise. They distinguished healthy, unhealthy and poor nutrition cluster. They found a strong relationship with cluster membership and the level of education. The higher the education, the healthier the behavior was. LV and his co-authors (2011) conducted a similar survey among Chinese adults (aged 18 and 64). They identified three distinct health-related lifestyle clusters: an unhealthy (25.7%), a moderately healthy (31.1%) and a healthy (43.1%) group. Tobacco use, physical activity, fruit and vegetable consumption and out-of-home eating were analyzed among lifestyle variables. Men were more likely than women to have unhealthy lifestyles. Adults aged 50 and 64 were more likely to live healthy lifestyles. Adult aged 40 and 49 were more likely to follow an unhealthy lifestyle. They also highlighted the relationship with cluster membership and the level of education and asset index.

The aim this research was to explore the perceptions of healthy eating in Hungary there are some educational initiatives and programs by health government, and public education connected to eating behavior (school lunch reform and school fruit program) and physical activity (obligatory PE lessons every day). At the same time the attitude and behavior of Hungarian people have been changing slowly and there is a major gap between the recommendation and actual eating habits.

Based on the literature review the following marketing research problem has aroused: to identify the components of healthy eating and to identify homogenous consumer groups based on the results of factor analysis, and characterize them based on demographics. The main research questions were the following:

a) What kind of factors can be distinguished based on healthy eating?

b) Is it possible to segment consumers based on healthy eating?

c) Is it possible to profile each segment based on demographics (gender, age, family lifecycle, residence, occupation, income level, and BMI)?

To answer the research questions three hypotheses were defined:

H_a: Different factors can be distinguished based on healthy eating.

H_b: Consumers can be grouped into homogeneous groups based on healthy eating.

H_c: It is possible to profile each segment based on demographics (gender, age, family lifecycle, residence, occupation, income level, and BMI).

Measurement and specification of scales

The method of primary research was the survey method. In the questionnaire we mainly used metric scales, but we made transformation and recoded some variables into non-metric scales.

- Examining healthy eating the scale developed by Dutta-Bergman (2004) was used. Response categories ranged from 1 'totally disagree' and 5 'totally agree'. The scale contained 11 items. The following attitude statements were included in the questionnaire:
  1. I try to avoid foods that are high in fat.
  2. try to avoid foods that are high in cholesterol.
  3. Nutrition information determines what I buy.
  4. I make a special effort to get enough fiber.
  5. I am concerned about how much sugar 1 eat.
  6. I try to avoid foods with a high salt content.
  7. I try to select food fortified with vitamins.
  8. I use a lot of low calorie products.
  9. I try to avoid foods with high additives.
  10. I am careful what I eat to keep weight in control.
  11. I am concerned about getting enough calcium.
- Gender was measured on nominal scale.
- Age was measured on ratio scale and we recoded into nominal scale to categorize respondents into three categories, youths (18-34), middle-aged (35-50) and seniors (51+).

The other demographic variables were measured on non-metric, categorical scales.

Sample design and data analysis

To answer the research questions the author chose single cross-sectional research method. The authors used the quota sampling design. A proportional sampling technique based on gender was chosen. Originally the researcher planned to question the same number of people in each gender group, which meant 50% of males and 50% of females. The planned size of the sample was 1000 respondents.

The empirical research was conducted in November 2018. To obtain the primary information, the online questionnaire was sent to different social media groups. Finally 1563 people could be reached with the survey and were willing to fulfil the whole questionnaire. Actually the researcher could not maintain the planned sample design. The ratio of males to females is 41.3% to 58.7%. Based on age three generations were investigated: 60.9% youths (18-34 years), 25.3% middle-aged (35-50 years) and 13.8% senior people (above 51 years). The

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sample can be characterized with the following demographics and health state characteristics (Table 1).

Table 1: Basic demographics of the sample

Residence:	villages 33.7%	towns 20.5%	cities 34.6%	capital city 6.9%
Occupation:	white collar workers 34.9%	blue collar workers 23.3%	students 30.3%	unemployed 1.6%
	dependents 2.3%	retired 5.0%	other 3.0%	–
Family lifecycle:	single 36.5%	lived in relation-ship without children 31.8%	lived in relationship with children under 10 15.0%	lived in relationship with children over 10 16.8%
Income level:	financial problems 8.6%	low income 13.0%	do not com-plain 40.4%	can save money 21.3%
	live in financial prosperity 14.5%	–	–	–
BMI cat-egory:	underweight 5.9%	normal weight 50.9%	overweight (less than 10 kg plus) 31.7%	obese (more than 10 kg plus) 11.4%

Source: Own research

The sample was not a representative one the authors would like to emphasize this study is an exploratory one and the main conclusions are true for this sample only.

The data analysis was conducted with the help of SPSS 23.0 software. To answer the research questions multivariate statistical analysis was conducted. To answer the first research question the authors used factor analysis. The method of factor extraction was the principle component analysis. The number of factors was determined by the priori determination (3) and approaches based on the eigenvalues (5), the scree plot (5) and the percentage of variance accounted for (5). The number of factors was determined by the eigenvalues. The benchmark of factor loading above 0.4 was applied as a criterion for item inclusion in each factor (TSOGAS et al. 2010: 4.). The rotation of factors was assessed by the method of Varimax. To answer the second research question the method of cluster analysis, especially the method of Ward's hierarchical cluster analysis, namely the agglomerative clustering was used (Malhotra, 2018). Since the aim was to emphasize the main differences square Euclidean distance was used to measure the distances. After investigating the pre-conditions, the researchers considered different cluster solutions, but finally they decided to apply the three cluster solution. In the next step they considered these three clusters as nominal variables. In order to answer the third research question to analyze the connection between cluster membership and basic demographics Chi-square analysis was conducted. In this case the authors took into consideration the expected value and the condition of variables measured on nominal scales.

RESULTS AND DISCUSSION

Healthy eating

In connection with healthy eating 11 statements were examined. In this case the value of Cronbach was 0.921, which means that this scale is consistent. The values of indicators proving the appropriateness of factor analysis were appropriate (KMO: 0.921, Bartlett's Test: 6586.563, Sig. 0.000). The number of factors was determined by Scree-test that is two factors could be distinguished that explained 63.173% of the total variance.

The first factor contained five variables which represented a conscious behavior and the choice of nutritious foods that are good for the body:

- I try to select food fortified with vitamins. 0.828
- I make a special effort to get enough fiber. 0.801
- I try to avoid foods with high additives. 0.760
- I am concerned about getting enough calcium. 0.758
- I am concerned about how much sugar I eat. 0.568

The total variance explained by this factor was 31.723% and the value of Cronbach was 0.867.

The second factor contained six variables which represented a conscious behavior the refusal of unhealthy foods which are harmful for the body:

- I try to avoid foods that are high in cholesterol. 0.832
- I use a lot of low calorie products. 0.806
- I try to avoid foods that are high in fat. 0.726
- I try to avoid foods with a high salt content. 0.686
- Nutrition information determines what I buy. 0.554
- I am careful what I eat to keep weight in control. 0.551

The total variance explained by this factor was 31.450% and the value of Cronbach was 0.863. It can be stated that different factors can be distinguished based on healthy eating, namely the choice of nutritious food and the refusal of unhealthy foods.

Consumer groups based on healthy eating

In the next step using the results of factor analysis were used for clustering. Relying on the results of Elbow criterion and Agglomeration schedule the four cluster solution was chosen. Count and frequency in case of each cluster was the following: 1st cluster 317 people (20.3%), 2nd cluster 185 people (11.8%), the 3rd cluster 409 people (26.2%) and 230 people (14.7%). In order to make a typology for the different clusters analysis of the means was necessary. The method of one way ANOVA was used to check the category means of healthy eating factors (choice of healthy foods - CHF, refusal of unhealthy foods - RUF) in case of each cluster and significant differences (FCHF: 509.468, p: 0.000, 2:0.472; FRUF: 748.369, p: 0.000, 2: 0.568). There were significant differences between groups in case of all variables. To test the homogeneity of variables Post-Hoc tests (Dunnett T3 and LSD) were conducted. Relying on the results there were statistically significant differences among variables.

1. Unhealthy food avoiders (20.3%): they try to eat in a healthy way and they typically refuse unhealthy foods such as foods with high cholesterol value, fat and salt content. They prefer low calorie foods and make their purchasing decision based on nutrition. They pay attention on their weight.
2. Rejecters (11.8%): they could not be characterized by choice of healthy foods or refusal of unhealthy foods. They have a negative attitude towards the aspects of healthy eating.
3. Neutrals (26.2%): are neutral when it comes about healthy eating.
4. Healthy food choosers (14.7%): could be characterized by the choice of healthy foods. They put an emphasis on eating foods with vitamin, fiber, calcium (Table 2).

Table 2: Results of cluster analysis

Hierarchical cluster analysis 4 cluster solution		Choice of healthy foods	Refusal of unhealthy foods
Cluster 1: Un-healthy food avoid-ers; 20.3%	Mean	0.063	1.191
	N	317	317
	Standard deviation	0.777	0.471
Cluster 2: Reject-ers; 11.8%	Mean	-1.506	-0.558
	N	185	185
	Standard deviation	0.361	0.618
Cluster 3: Neutrals; 26.2%	Mean	0.269	0.0454
	N	409	409
	Standard deviation	0.644	0.402
Cluster 4: Healthy food choosers; 14.7%	Mean	0.644	-1.274
	N	230	230
	Standard deviation	0.955	0.471
Count	Mean	0.000	0.000
	N	1141	1141
	Standard deviation	1.000	1.000

Source: Own research, n=1140 respondents

It can be stated that consumers can be grouped into homogeneous groups based on healthy eating factors (choice of healthy foods, refusal of unhealthy foods). Four groups of consumers were identified: unhealthy food avoiders (20.3%), rejecters (11.8%), neutrals (26.2%) and healthy food choosers (14.7%).

Profiling consumer groups

In order to analyze the connection between cluster membership and basic demographics cross tabulation (Chi-square analysis) was conducted. The relationship with cluster membership and gender, generation, occupation, family lifecycle, income level, and BMI were analyzed. Significant relationships in case of generation (χ^2=15.944; p=0.01), residence (χ^2=23.168; p=0.02), occupation (χ^2=77.203; p=0.00), family lifecycle (χ^2=18.446; p=0.03), income level (χ^2=25.549; p=0.01) and BMI (χ^2=20.389; p=0.01) were found. However these connections were very weak (Cramer's $V_{generation}$=0.08; Cramer's $V_{residence}$=0.08, Cramer's $V_{occupation}$=0.15, Cramer's $V_{family\ lifecycle}$=0.07, Cramer's V_{income}=0.09, Cramer's V_{BMI}=0.07 (Table 3).

Relying on the results of adjusted standardized residuals it can be stated that unhealthy food avoiders are seniors. Rejecters are blue collar workers and have financial problems. Healthy food choosers live in families with children over 10 and do not have weight problems (Table 3).

Table 3: Clusters and basic demographics

Demographics		Adjusted standardized residuum				
		un-healthy food avoiders	rejecters	neutrals	healthy food choosers	Sign. relations with clusters
Age	senior	2.2	-1,5	0.5	-2.0	un-healthy food avoiders
Occupa-tion	blue collar	-0.6	3.5	-0.6	-1.5	rejecters
	other	-1.8	-2.1	-0.1	4.2	healthy food choosers-
Family lifecycle	fam-ily with children over 10	-0.9	-0.5	-0.6	2.2	healthy food choosers-
Income level	financial problems	-2.4	2.0	-0.5	1.7	rejecters
BMI	normal	-0.2	-1.2	-0.8	2.4	healthy food choosers

Source: Own research

It is possible to profile each segment based on demographics, especially based on age, occupation, family lifecycle, income level and BMI. Unhealthy food avoiders are seniors. Rejecters are blue collar workers and have financial problems. Healthy food choosers live in families with children over 10 and do not have weight problems.

Discussion

More international studies focused on clustering adult population based on healthy eating or lifestyle. Benedet et al. (2017) concentrated on unhealthy food habits and Anrdé et al. categorized senior Norwegian citizens based on similarities of food consumption. This research focused on the healthy eating style of Hungarian adults. Considering healthy eating two factors were identified: choice of healthy foods and refusal of unhealthy foods. The first behavior was referring to eating healthy, nutritious foods and the second one meant avoiding junk foods. A hierarchical cluster analysis was conducted to segment consumers based on their healthy eating (choice of healthy foods, refusal of unhealthy foods). Four groups of consumers were identified: unhealthy food avoiders (20.3%), rejecters (11.8%), neutrals (26.2%) and

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healthy food choosers (14.7%). Unhealthy food avoiders try to eat in a healthy way and they typically refuse unhealthy foods such as foods with high cholesterol value, fat and salt content. They prefer low calorie foods and make their purchasing decision based on nutrition. They pay attention on their weight. Rejecters could not be characterized by choice of healthy foods or refusal of unhealthy foods. They have a negative attitude towards the aspects of healthy eating. Neutrals are neutral when it comes about healthy eating. Healthy food choosers could be characterized by the choice of healthy foods. They put an emphasis on eating foods with vitamin, fiber, calcium. In order to profile each segment cross tabulation was conducted. There were statistically significant relationships in case of generation, residence, occupation, family lifecycle, income level and BMI. Unhealthy food avoiders are seniors. Rejecters are blue collar workers and have financial problems. Healthy food choosers live in families with children over 10 and do not have weight problems. WAH (2016) and LV et al. (2011) highlighted gender differences that females are more health-conscious, they eat less and smaller proportions and take care of weight control. However there were no gender differences in this empirical research. More studies (Benedet et al. 2017; Vries et al. 2008; LV et al. 2011) emphasized the importance of education level in healthy lifestyle. However in this study the level of education was not investigated. More researches (Psouni et al. 2017, Heerman et al. 2017) found that healthy eaters had lower level of BMI and they did not suffer from overweight and obesity. This is line with present results since people with normal weight are healthy food choosers.

CONCLUSIONS AND FURTHER RESEARCH

Present study is useful for the health sector (doctors, dieticians and food experts) and the government since targeted marketing programs can be planned to change eating behavior. In case of government social marketing programs would be necessary. Raising the health consciousness of neutrals and rejecters (38%) is also important. The barriers of healthy eating are the lack of support from others and knowledge, cooking skills, availability, willpower. Price (too expensive, preparation time and hedonics such as too boring, not tasty are also barriers to healthy eating (MARROW et al. 2016). In order to increase the quality of life and wellbeing of people it is necessary to improve their health. Health is not only the state of being free from illness or injury, but it is even a more complex category. A sound mind in a sound body should be emphasized in social marketing campaigns. To decrease overweight and obesity is the goal of all society (especially in developed countries where this phenomenon is considered to be an epidemic) that is why educating people and applying social marketing campaigns are necessary. Informing people about the correct eating habits and the principles of a balanced nutrition (food pyramid, WHO principles) should be communicated to people. Developing applications and smart equipment like smart plate, fork could help them to follow the basic principles of healthy eating. These applications could be developed with the cooperation of doctors, dietitians and nutrition consultancy. Educating people and changing their unhealthy habits is the interest of a society. Not only education but raising attention of people with emphasizing the consequences of bad eating habits should be in focus. The social marketing campaign aims to change people's attitudes and behavior. The behavior is driven by many factors and two factors – benefits and costs – are at the heart of the changing process. The non-profit managers seek to amplify benefits and reduce costs in order to get target publics to behave in certain ways such as eating healthy. Many times people have social support and a belief in the beneficial effects of behavior such as stopping eating snacks, but are unable to adopt it because they think they actually cannot succeed.

Finally the limitation of present study should be highlighted. The most important limitation is the non-representative sample. The author mainly concentrated on a regional sample, especially people living in the Western Pannon region and one third of the sample belong to the young generation. The limitation of this study is the self-declaration on healthy eating perceptions instead of objectively measured data (food diaries).

In the future the researcher would like to highlight other lifestyle differences. Another possible direction of this research is to analyze the consumption of different food products and conducting a cluster analysis based on consumption patterns. Thus the actual behavior and healthy eating patterns could be compared. It is also worth to analyze the barriers of healthy eating. There are some stereotypes like price, boredom, not tasty, etc. when it comes about healthy eating. Since a major part of the population can be characterized by low involvement when it comes about healthy eating their rejections and drivers should be identified.

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