AKADÉMIAI KIADÓ

UNIVERSITY of DEBRECEN

International Review of Applied Sciences and Engineering

DOI:
10.1556/1848.2020.00185

ORIGINAL RESEARCH PAPER

Examination of the perceived and real environmental and health consciousness of students attending the University of Debrecen

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Received: September 27, 2020 • Accepted: November 20, 2020

ABSTRACT

Increasing food demand poses a challenge for the economy and places a burden on the environment. In agricultural food production, each product chain stage shows scarce resources and negative environmental impacts are becoming increasingly significant. Food consumption has a significant impact on the environment and on human health. Sustainable food consumption is characterised by health and environmental consciousness. This study focuses on the relationship between perceived and real consciousness – more specifically on environmental and health consciousness – concerning food consumption. Following a concise overview of the conceptual background, the definitions of conscious consumption, conscious food consumption, health conscious consumer and environmentally conscious consumer behaviour are explained based on the available literature. The primary research draws conclusions from the results of a 500-person questionnaire survey among the students attending the University of Debrecen on the relationship between perceived and real health and environmental consciousness regarding food consumption. It was concluded that environmental consciousness (10.0%) was less characteristic of students than health consciousness (18.2%); the relationship between perceived and real consciousness is significant; the role of price in determining food purchases is less pronounced for those claiming to be self-conscious food consumers than those who are neither health conscious, nor environmentally conscious.

KEYWORDS

food consumption, health consciousness, eco-consciousness, sustainable food consumption, university students

1. INTRODUCTION

Health consciousness and environmental consciousness mutually characterise sustainable consumption, i.e. the purchasing and consumption of products and services that meet basic needs and lead to better quality of life, while minimising the use of natural resources and substances harmful to nature, as well as waste and pollutant emissions throughout their entire life cycle, in order not to jeopardise the ability of future generations to meet their needs. This approach is particularly pronounced for food consumption, as its environmental impact is significant on both the input and output sides [1–3].

The principles of sustainable and environmentally conscious food consumption include the preference of vegetable foods and fats over those of animal origin, the consumption of less processed, mostly regional foods, and the reduction of animal protein consumption. In many cases, the requirements of healthy and environmentally friendly nutrition coincide, and several studies have already found that foods whose consumption should be reduced due to their harmful health effects are generally foods with a higher environmental load [4–6]. The negative environmental impacts associated with food consumption are significant especially for land use, energy demand and water demand. Kiss et al. also argue in their literature review

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that the issues of food consumption, health, and the environment should be examined in correlation with each other, particularly emphasising the environmental aspect [7].

We believe that sustainable consumption is characterised by a combination of health and environmental consciousness, and the pivotal issue of this study is to examine the relationship between perceived and real consciousness, with particular reference to environmental and health consciousness in relation to food consumption. Following a concise overview of the conceptual background, it is important to clarify what is meant by conscious consumption, conscious food consumption, health conscious consumer and environmentally conscious consumer behaviour. As a next step, based on the results of a 500-person questionnaire survey conducted at the University of Debrecen, conclusions are drawn on the relationship between the perceived and real natures of health consciousness and environmental consciousness regarding food consumption.

Based on the literature, conscious consumers are those who make careful choices when making purchases or using services. They are also aware of information that can help them get to know certain product characteristics and also consider their own interests and those of others [8–13].

The development of conscious consumption is a complex process [14] and is characterised by several motives. First and foremost, the consumer needs to go beyond being a passive 'shopper' but to become a conscious, forward-thinking consumer aware of his or her own goals and needs. To this end, they need to become familiar with products and services and even prior to setting out for the shops.

In the marketing literature, the term 'consciousness' can be considered very versatile, although we do not find a common definition of what is meant by conscious consumption and conscious purchases. According to Dudás, there are three sub-areas, i.e. (1) self-centred consciousness, (2) the sphere of socially responsible consciousness, which takes the interests of others in consideration (environmental consciousness and sustainable consumption appear here, as well) and (3) the so-called intermediate sphere, where country-of-origin consciousness and financial consciousness appear [15]. Both country-of-origin and financial consciousness play an important role in self-interest and community interest. If this division is accepted, it should be examined which is more characteristic of consumers: following their self-interest or socially and environmentally responsible decision-making that also takes into account the interests of others.

Several authors point out that health can be considered to be a very effective buzzword, as self-interest can motivate consumers to buy more environmentally friendly products [16–18]. In our research, we analyse the relationship between health consciousness and environmental consciousness, also attempting to determine the relationship between perceived and real consciousness.

It should be emphasised that experience has shown a difference between perceived and real consciousness. In many cases, especially in questionnaire surveys, one can see that respondents paint a much more positive image of themselves than what is manifested in their actions. This behaviour is not necessarily deliberately misleading, as it can also be traced back to the fact that consumers' self-image, however idealised, does not transform into a conscious decision in their consumption choices and in fact does not influence their consumption decisions. Based on small sample surveys, Szűcs claims that, depending on the given research area, only 10–20% of consumers showed an acceptable level of actual consciousness supported by real knowledge [19]. During the performed research, we aimed to distinguish between perceived and real consciousness, both in terms of health consciousness and environmental consciousness, and subsequently analysed which factor appears more strongly and which has a greater impact on consumer decisions in the area of food consumption, bearing in mind that the protection of the environment appears as a goal, but self-interest often overrides decision-making alternatives that take into account the interests of others. In many cases, eventual decisions may serve one's own convenience, but they represent only momentary cost savings and consider community interests and environmental issues to be less important.

2. MATERIAL AND METHODS

2.1. Methods

In the research process, primary and secondary information collection and analysis were performed. As a first step, we reviewed the literature on the background of the topic in order to define the related concepts and to get an overview of the related research findings. In the introduction, we have presented a concise summary of this process, focusing on the central topic of the study.

As a first step of quantitative research, we conducted a questionnaire survey – i.e. the most common information gathering technique - among students attending the University of Debrecen between May and July 2019. Both the online questionnaire survey and the offline sampling method (personal, paper-based questionnaire) were used, while ensuring we had a sample of students with different levels of knowledge about health conscious eating and environmentally conscious food consumption. In the present case, the study focused on the food consumption patterns of 18–25-year-olds, as they can be considered to be the 'consumers of the near future'; higher education students in the examined sample can be considered to be independent decision makers in their consumption habits, especially in relation to food consumption; patterns of consumption developed during this period, influenced by information gained through education, may be decisive for the future, too.

The sample size was 500 (n = 500) after data cleansing and making the sample gender representative. The sample reflects the headcount data issued by the University of Debrecen Education Office in terms of the distribution of students by faculty and, more specifically, gender distribution. While participation in the survey was voluntary, quota sampling was used to ensure representativeness in terms of the number of students and gender. As of March 15, 2019, there were 24,480 students at the university, which includes the number of full-time and part-time students, PhD students, and those taking part in special further education at the 14 faculties. Due to the exploratory nature of our research, examining a homogeneous group of students of the University of Debrecen, the conclusions drawn from the obtained results concern only the food consumption habits and attitudes of students. However, they may reflect the respective habits of other higher education students, too.

Background variables of the questionnaire included questions about gender, age, educational attainment, subjective sense of income, form and level of participation in higher education, and body mass and height needed to determine body mass index.

The questionnaire was compiled using both open and closed questions for the purpose of gathering more information about the subject matter of the study. Special mention was made of the meals between the main meals, their location and frequency in terms of food and drink. We also included a set of statements in the questionnaire in which respondents agreed or disagreed with food consumption claims on a five-point Likert scale (1 = strongly disagree and 5 = strongly agree).

Data obtained from the questionnaire research were processed with mathematical–statistical analytical software (SPSS 23.0). Following the data cleansing immediately after data logging, we used basic descriptive statistical methods (minimum, maximum, mean, standard deviation, distribution, skew) for filtering out data entry errors and outliers, as well as to perform data processing. A cross-table analysis was also used to reveal the relationships between the different variables. Pearson's chi-squared test was used to confirm (or reject) the significant correlation between the examined variables, and the non-parametric Kruskal–Wallis test was used to reveal the differences between the groups. Interpretation of the results was performed at the 5% significance level [20, 21].

2.2. Sample

After data cleansing and making the sample gender representative, the questionnaire filled out by 500 respondents (n = 500) was evaluated (Table 1).

Table 1. Distribution of the sample in terms of the background variables

Description		Sample distribution	
		N	%
Total		500	100.0
Gender	Female	277	55.4
	Male	223	44.6
Form of education	Full-time	412	82.4
	Part-time	88	17.6
Place of residence	Capital	8	1.6
	City of county rank	226	45.2
	City	131	26.2
	Settlement (population between 2,000 and 10,000 people)	38	7.6
	Settlement (population below 2000 people)	97	19.4
Subjective income	We have daily financial problems	6	1.2
	Sometimes we have financial problems	17	3.4
	We can make ends meet, but we cannot save any	144	28.8
	We life off our income and we can save money	188	37.6
	We life off our income very well and we can save money	145	29.0
Place of residence during the study period	At home	221	44.2
	In a dormitory	112	22.4
	Rented flat	117	23.4
	Own flat	45	9.0
	No response	5	1.0

Source: Own calculation

All respondents are active students at the University of Debrecen, 82.4% of them are full-time students and 17.6% are part-time students. The gender distribution of respondents reflects the overall population, with 223 men (44.6%) and 277 (55.4%) women. Most respondents live in the county seat (45.2%). In terms of subjective income status, the majority of respondents said they were in the higher income category (37% responded 'We live off our income and we are able to save money' and 29% responded 'We live off our income very well and we can save money'). However, it should be noted that they referred to their family's subjective income situation, i.e. not their independent income, as we interviewed active university students. With regard to food consumption, this age group is already considered to be an independent decision-maker, but we believe that there is a difference between those who are still living in a family environment and students who are already living in a dormitory or who rent a room. In terms of the place of residence during the school year, 44.2% of the sample spends their daily lives at home, in a family environment, while the remaining 64.8% mostly spend their daily lives in dormitories. The rest usually rent a flat rather than living in their own homes (1% of respondents did not answer this question).

Fig. 1 shows the distribution of respondents by faculties, in which case the sample corresponds to the proportions of the population. The five largest faculties of the University of Debrecen are the Faculty of Medicine (ÁOK) (3,476 students), Faculty of Economics (GTK) (3,334 students), Faculty of Humanities (BTK) (2,524 students), Faculty of Engineering (MK) (2,495 students) and the Faculty of Science and Technology (TTK) (2,487 students).

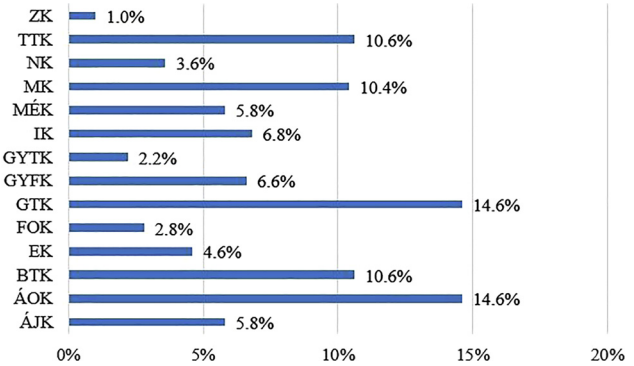

Fig. 1. Distribution of the sample by faculty* at the University of Debrecen (N = 500).

**Note*: ZK = Faculty of Music; TTK = Faculty of Science and Technology; NK = Faculty of Public Health; MK = Faculty of Engineering; MÉK = Faculty of Agricultural and Food Sciences and Environmental Management; IK = Faculty of Informatics; GYTK = Faculty of Pharmacy; GYFK = Faculty of Child and Special Needs Education; GTK = Faculty of Economics and Business; FOK = Faculty of Dentistry; EK = Faculty of Health; BTK = Faculty of Humanities; ÁOK = Faculty of Medicine; ÁJK = Faculty of Law.
Source: Own calculation

3. RESULTS AND DISCUSSION

3.1. Evaluation of the obtained results based on the background variables

As a first step, respondents were asked about their consciousness from various aspects by means of rating themselves on a 5-point scale, based on how conscious they considered themselves to be when it comes to consumption habits (Table 2). Based on the responses, the highest average value (4.002) was given for price (i.e. the examined age group can be considered price-sensitive food consumers) and this criterion also had the smallest standard deviation, followed by quality as an aspect of food purchase and consumption. Local products received the lowest average value (3.092) and their median was also lower (3). It can also be concluded that a higher proportion of respondents consider themselves to be conscious food consumers in terms of health consciousness than in terms of environmental consciousness.

18.2% of respondents declared themselves to be health conscious food consumers.[1] Based on the performed cross-table analysis, these respondents are mostly female students of the ÁOK, GYFK and BTK, living in the county seat, at home, in a rented flat or a dormitory, with parents, with no relatives and in a relationship. As regards their subjective income status, they belong to the high and medium income categories. 9.2% clearly indicated that they do not consider themselves to be health-conscious food consumers. Most of these respondents are male students of MK, IK and BTK, they live in the county seat, at home or in a dormitory and they belong to the medium and the highest subjective income category. 0.9% of respondents indicated that they do not know what this concept means. Most of these respondents are male students of ÁJK and IK, they live in county seats or in settlements with a population lower than 2,000, with their parents or non-relatives. These respondents mostly have medium or high subjective income. (The latter group of respondents will be treated in the follow-up by merging with the non-health-conscious group.) It was also possible to choose 'Partially' as an answer for this question

Table 2. Evaluation of factors influencing food consumption among UD students (N = 500)

Denomination	Mean	Std. dev.	Median
Price	4.002	0.892	4
Quality	3.916	1.039	4
Local products	3.092	1.234	3
Brand	3.112	1.141	3
Environmental- conscious	3.296	1.046	3
Health-conscious	3.644	1.019	4

Source: Own calculation

[1]Question: In your opinion, do you usually eat health-consciously? (1) yes; (2) in part; (3) no; (4) I do not know what this concept means.

and this is where 72.2% of the respondents appear. Most of them are female students of GTK, ÁOK and TTK who live with their parents, at home, in the county seat and their subjective income level is medium and higher.

10.0% of respondents declared themselves to be environmentally conscious food consumers.[2] Based on the cross-table analysis, most of these respondents are female students of the GTK, ÁOK and BTK, living in the county seat, at home, i.e. in a family environment together with their parents. In terms of their subjective income status, they belong to the medium income category. 17.8% of the respondents clearly stated that they do not consider themselves to be environmentally conscious food consumers. Most of them are male students of the TTK, MK and GTK, they live in a county seat, at home or in a dormitory and they belong to the highest subjective income category. 2.4% of respondents indicated that they do not know what is meant by the concept, i.e. they are not aware of the criteria of environmental consciousness. Most of these respondents are male students of the IK and MK, living with their parents in settlements with less than 2,000 inhabitants and have a high subjective income. (In further research, the latter group of respondents will be treated in combination with the group that did not consider themselves environmentally conscious.) It was also possible to choose 'Partially' as an answer for this question and this is where 69.8% of the respondents appear. Most of them are female students of GTK, ÁOK and TTK who live with their parents, at home, in the county seat and their subjective income level is medium and higher.

Based on the above mentioned results, it can be stated that students attending the University of Debrecen are less aware of the criteria of environmental consciousness than the characteristics of health consciousness. They consider themselves to be health conscious food consumers rather than environmentally conscious food consumers and a higher proportion of them reject environmental aspects in relation to food consumption. Additionally, they tend to follow their self-interests as opposed to socially responsible attitudes concerning their food consumption decisions. It is important to note that the above statements are in all cases 'perceived', self-reported health and environmental consciousness-related conclusions.

3.2. Comparing 'perceived' and 'real' consciousness in terms of health consciousness and environmental consciousness

3.2.1. Comparison of 'real' health-consciousness with 'perceived' health consciousness. When examining health consciousness, respondents were categorised into three groups based on perceived self-consciousness, i.e. self-perception: 'yes' (health-conscious), 'partially' (partially health conscious), or 'no' (either rejecting health consciousness or not knowing what it refers to). Subsequently, we created cross-tables and analysed the relationship between perceived and real consciousness using the Chi-squared test.

18.2% of respondents said they were health conscious food consumers. In addition to a healthy diet, regular physical activity and regular sports play a significant role in a healthy lifestyle. In our study, we found that there was a significant association between perceived health consciousness and physical activity (Chi-squared value: 44.752, $P < 0.001$). Regarding physical activity,[3] those who claim to be health conscious food consumers perform regular physical activities (29.7% of them exercise weekly and 38.5% of them exercise more than once a week). Those who do not claim to be health conscious are not likely to exercise regularly, with almost half (46.8%) of the group exercising only a few times a month.

Thus, on the basis of the above findings, it can be concluded that perceived and real consciousness are consistent in relation to health consciousness and regular exercises.

Concerning regular meals in accordance with the recommendations,[4] a cross-table analysis found that there was a higher proportion of people who eat 4–5 times a day among those who declared themselves to be health conscious (52.7%) than those who did not (37.5%). In the case of perceived health consciousness, 4–5 meals a day are more typical in comparison with non-health conscious people, who tend to eat at irregular times or are likely to snack. The Chi-squared test clearly shows that there is a clear correlation between perceived health consciousness and regular eating (Chi-squared value 34.893, $P < 0.001$). However, snacking between main meals does not show a significant relationship with whether respondents declare themselves to be health conscious; no correlation was found here (Chi-squared value of 5.686, $P = 0.058$).

Proper fluid intake is a prerequisite for a healthy diet. According to the relevant recommendations, the average fluid requirement of an adult is 2 and 3 L. This fluid intake consists of several types of fluid intake, including morning coffee or cocoa, soup or broth for lunch, and liquid during the day, which is also highlighted in the questionnaire. Consumers who declare themselves to be health conscious are more likely to consume fluid in accordance with the recommendations. For this reason, it was found that

[2]Question: Do you consider yourself an environmentally conscious food consumer? (1) yes; (2) in part; (3) no; (4) I do not know what this concept means.

[3]Question: Please describe your physical activity (sports or physical work)? (1) I exercise for at least 30–60 minutes per day; (2) I exercise 30–60 minutes several times a week; (3) I do exercises for 30–60 minutes once a week; (4) I do exercises only a few times a month; (5) I usually avoid physical activity

[4]Question: How many times do you eat on an average weekday? (1) 4–5 times a day (breakfast, lunch, dinner, and a small meal between main meals); (2) I only eat 3 times a day (breakfast, lunch, dinner); (3) I eat twice a day (I skip either the breakfast or dinner); (4) I snack almost all day and I do not stick to main meals; (5) I don't know because I eat very irregularly.

perceived and real health consciousness are consistent with each other (Chi-squared value of 21.470, $P = 0.005$).

3.2.2. Comparison of 'real' environmental consciousness with 'perceived' environmental consciousness. Health consciousness is closely linked to environmental consciousness regarding food consumption. However, it must be emphasised that only our real actions, i.e. decisions related to food consumption, can make an impact. 10.0% of the respondents claim to be environmentally conscious food consumers. During the performed analyses, the main opportunity to examine real consciousness was provided by parts of the questionnaire which enabled us to examine the external environmental effects of the questions focusing on food consumption and related situations where decision is needed.

When examining environmental consciousness, respondents were categorised into three groups based on their opinion about themselves: 'yes' (environmentally conscious), 'partly' (partly environmentally conscious) and 'no' (either rejecting environmental consciousness or not knowing what it refers to). Subsequently, we examined the relationships and differences between these groups.

For factors influencing food purchasing decisions, respondents were asked to rate how important each criterion was in their decisions on a five-point Likert scale (1 – not important at all, 5 – very important). A Kruskal–Wallis test was used to analyse whether 'perceived' environmental consciousness has an effect in the case of each criterion (Table 3). It can be concluded that there is a significant difference between those who claim to be environmentally conscious and those who refuse this approach in the following cases: product price, information content and reusability of packaging, country of origin, trademark, product availability in the market/specialist store and reviews in the social media. Regarding the possible criteria, it can be stated that perceived and the real environmental consciousness are related to each other in the case of criteria influencing food consumption decisions.

In order to examine real environmental consciousness, we asked the students about what form of transport they generally choose. The respondents could choose multiple answers. A bicycle is a twice as likely option for those claiming to be environmentally conscious than those who claim to be only partially or not environmentally conscious (Fig. 2).

In the case of car and public transport, non-environmentally conscious students are ranked first among those who mentioned these two forms of transport. The option of pedestrian transport (by foot) is also typically marked by non-environmentally conscious people, although this finding is likely to be influenced by the fact that the dormitory or the rented flat is close to the university campus.

The proportion and amount of animal protein in our diet is a key issue due to its significant environmental impacts and our health status. Numerous studies point to the need to be prepared to satisfy our protein needs with alternatives to traditional animal protein. Such an alternative could be the incorporation of insect protein and synthetic protein in the human diet. We examined student willingness to choose these options. For this question, we performed a cross-table analysis and found, using Pearson's chi-squared test, that 'perceived' environmental consciousness had no effect on whether or not they were willing to consume insect protein ($P = 0.441$). However, respondents who claim to be environmentally conscious are more likely to refuse the consumption of synthetic protein than those who claim to be not environmentally conscious. Examining those who are willing to consume alternative forms of protein, we have found that those with 'perceived' environmental consciousness are clearly more likely to consume insect protein, but refuse to consume synthetic protein, whereas those refusing environmental consciousness tend to be more open to consume synthetic protein and they are more likely to reject insect protein, too (Chi-squared value: 16.029, P=0.042).

3.2.3. Examination of environmental and health-consciousness. In the case of health consciousness and environmental consciousness, as was shown previously, there is a

Table 3. Relationships between criteria influencing food consumption decisions and perceived environmentally conscious behaviour

Description	Value of significance
Unit price (HUF per unit or HUF per kg)	0.263
Product price	0.013
Packaging, appearance	0.850
Information content of packaging	<0.001
Reusability of packaging	<0.001
Country of origin	<0.001
Shelf life	0.061
Consciousness of the brand	0.114
Patent (Hungarian product, Outstanding product)	<0.001
Buying kitchen-ready products	0.572
Product availability in the market/ specialist store	0.004
Product availability in hypermarkets	0.287
Reviews in the social media (e.g. blogs and vlogs)	<0.001

Source: Own calculation, Kruskal–Wallis test, level of significance: $P < 0.05$.

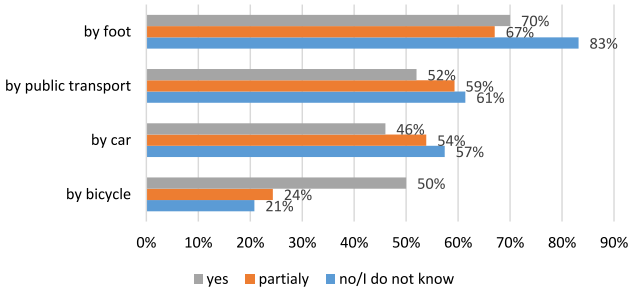

Fig. 2. Perceived environmental consciousness and typical forms of transport (selected answers, %).
Source: Own calculation

relationship between 'perceived' and 'real' consciousness. As a next step, an analysis shows the relationship between 'perceived' and 'real' consciousness in the questionnaire and also the aspects based on which this relationship is stronger (Table 4).

Respondents were able to express their agreement or disagreement with the below statements on food consumption using a five-point Likert scale (1 = strongly disagree and 5 = strongly agree). The data in the table are ranked according to the mean. As a next step, it was examined when 'perceived' health and/or environmental consciousness have an impact, and we were looking for significant differences.

The non-parametric Kruskal–Wallis test was used as the method of analysis at $P = 0.05$ probability level. Examining the 27 statements in Table 4, we found that 6 had no effect on the response to whether the student considered himself to be health and/or environmentally conscious (these statements were marked with # in Table 4). In 14 statements, consciousness was found to play a decisive role in both aspects (these statements were marked with * in Table 4). More specifically, both 'perceived' health-conscious and environmentally conscious effects appear in actual decisions. Based on the 20 questions analysed so far, it can be concluded that, in the case of declared preference, i.e. students with 'perceived' consciousness in actual decision situations, the role of price as a factor influencing their decisions related to food consumption is not as strong as all respondents had earlier indicated as an aspect influencing

Table 4. Assessment of 'perceived' and 'real' health and environmental consciousness based on food consumption statements among UD students

	Statistical indexes					
					Interquartile range of grouped data	
Statements	Mean	Mode	Group median	Skewness	Q1	Q3
I prefer fresh products over canned goods.#	4.38	5	4.51	−1.40	3.82	–
I prefer fresh products over frozen products.	4.26	5	4.39	−1.15	3.59	–
I buy fresh meat and vegetables rather than prepackaged ones.*	4.14	5	4.36	−1.24	3.44	5.00
I always try to get the best quality at the best price.*	4.09	5	4.23	−1.15	3.41	4.87
I compare prices between the foods to buy to get the best value.#	4.01	5	4.20	−1.11	3.3	4.87
I consider the taste the first and most important thing during cooking.	3.89	4	3.95	−0.46	3.14	4.72
I always check prices, even for small items.#	3.62	5	3.75	−0.41	2.59	4.71
I love going to restaurants with my family and friends.	3.59	4	3.75	−0.57	2.65	4.63
I make a shopping list to buy food.#	3.52	4	3.67	−0.49	2.53	4.59
For me, product information is very important. I need to know what the product contains.*	3.41	4	3.49	−0.40	2.53	4.37
A familiar food gives me a sense of security.	3.39	4	3.47	−0.32	2.42	4.42
I prefer food made in Hungary.*	3.38	3	3.40	−0.17	2.41	4.40
I regularly check out the promotional papers and take the opportunity to do my shopping.	3.31	5	3.45	−0.32	2.16	4.51
I only buy and eat foods I know.	3.24	3	3.28	−0.20	2.36	4.13
I like to buy groceries in specialist shops where I can get expert advice. * (e.g. butcher's, greengrocery)	3.08	3	3.15	−0.16	2.09	4.10
I don't like spending too much time cooking.*	3.05	4	3.06	−0.04	1.88	4.23
I try to avoid food additives.*	2.87	3	2.83	0.11	1.86	3.85
I always plan a few days in advance what we will eat.*	2.86	3	2.80	0.16	1.81	3.86
It is more important to choose food for their nutritional value than their taste.*	2.80	3	2.81	0.03	1.89	3.71
I make sure that the product is preservative free.*	2.80	3	2.76	0.17	1.79	3.76
I do not mind paying a higher price for organic products.*	2.64	2	2.55	0.32	1.55	3.66
I consume natural or organic food.*	2.62	2	2.56	0.24	1.61	3.60
I like to know what I buy, so often ask questions where I buy the food.*	2.58	3	2.55	0.20	1.52	3.60
I prefer canned goods over frozen ones.*	2.40	1	2.29	0.43	1.36	3.37
I usually don't decide what to buy until I'm in the store.#	2.38	2	2.29	0.44	1.44	3.25
Ads information can help me make a better purchasing decision.	2.38	1	2.30	0.36	1.32	3.39
We eat a lot of previously prepared meals at home.#	2.37	1	2.24	0.55	1.35	3.28

Source: Own calculation.
Note: the amount of missing data for each statement is less than 4%.

their food consumption-related decisions (see Table 4). Consequently, the influence of price is reduced with the appearance of consciousness.

The effect of 'perceived' health consciousness showed a difference in 3 cases where 'perceived' environmental consciousness showed no significant difference. Students who claim to be not or only partially health conscious are more likely to think that taste is the most important during cooking ($P = 0.005$) and they like to eat with their family and/or friends in a restaurant ($P = 0.01$), while the regular following of promotional papers is more likely among health conscious students than those who refuse the concept ($P = 0.047$).

When examining 'perceived' environmental consciousness, we found that it determines the respective respondents' approach to four statements, while the effect of the 'perceived' health consciousness cannot be observed. Those who claim to be environmentally conscious clearly prefer fresh products over frozen products ($P = 0.047$); it gives them a sense of security if they eat familiar food ($P = 0.003$), they insist on consuming only familiar food ($P = 0.001$) and ads help them make decisions ($P = 0.02$).

Both health consciousness and environmental consciousness are equally relevant for the following statements ($P = 0.001$):

- I always try to get the best quality at the best price.
- For me, product information is very important. I need to know what the product contains.
- I prefer homemade food.
- I try to avoid food additives.
- It is more important to choose food for their nutritional value than their taste.
- I make sure that the product is preservative-free.
- I don't mind paying a higher price for organic products.
- I consume natural or organic food.

While in the case of 6 statements, it is noticeable that either of the two types of consciousness is more significant than the other (3 statements each), it should be noted that both have significant effect in the case of these statements.

'Perceived' health-consciousness has a stronger influence on the following statements:

- I buy fresh meat and vegetables rather than pre-packaged products ($P < 0.001$).
- I don't like spending too much time with cooking ($P < 0.001$).
- I prefer canned goods over frozen products ($P = 0.002$ p).

'Perceived' environmental consciousness has a stronger influence on the following statements:

- I like to buy groceries in specialist shops where I can get expert advice. * (e.g. butcher's, greengrocery) ($P < 0.001$).
- I always plan what we will eat a few days ahead. ($P = 0.003$).
- I like to know what I buy, so often ask questions where I buy the food. ($P = 0.002$).

It can be concluded that 'perceived' health and environmental consciousness has an influence on stated preferences, i.e. it has a real influence on students' food consumption decisions.

4. CONCLUSIONS

Based on the results of the survey, it can be concluded that students attending the University of Debrecen are less aware of the criteria of environmental consciousness than the characteristics of health consciousness and they consider themselves to be health conscious, rather than environmentally conscious. Also, there are a high proportion of students refusing environmental aspects in relation to food consumption and self-interest is dominant over socially responsible behaviour in their food consumption decisions. 18.2% of respondents declared themselves to be health conscious food consumers, while 10.0% consider themselves to be environmentally conscious food consumers. Since even this level of perceived consciousness is too low, it needs to be improved. University education can play a role in this regard, as information on conscious consumer behaviour and criteria for health and environmentally conscious behaviour can be integrated into a multitude of subjects in many fields of study.

Differences and correlations were considered in relation to perceived and real food consumption habits. The obtained results show that there is a significant difference in several aspects between those who claim to be environmentally conscious and non-environmentally conscious people. Those who claim to be environmentally conscious consumers tend to reject novelties, prefer conventional flavours, fresh ingredients, and reject the consumption of synthetic protein, but they accept insect protein as an alternative. Furthermore, they tend to choose walking or the bicycle as a form of transport, and they especially prefer the latter.

In the case of health conscious food consumers, we also found a significant difference between those who are conscious and those who are not. Health conscious students tend to exercise regularly, eat at the recommended intervals and pay attention to adequate daily fluid intake, while they consider taste to be a priority, they connect the experience of the community with eating, they track promotional offers, which also affects their food consumption, while those who do not claim to be health-conscious do not tend to act this way.

Although the survey found significant correlation between perceived and real consciousness characteristics for the examined issues and other influential factors also appear in addition to price in the case of those who claim to be conscious consumers, but their low proportion within the population still does not mean that the food consumption habits of the young generation will be less environmentally harmful and more supportive of healthy lifestyle than today's adult consumers.

ACKNOWLEDGEMENTS

The work/publication is supported by the EFOP-3.6.1-16-2016-00022 project. The project is co-financed by the European Union and the European Social Fund.

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