

COMPARISON OF CONSUMER BEHAVIOR OF SLOVAKS AND CZECHS IN THE MARKET OF ORGANIC PRODUCTS BY USING CORRESPONDENCE ANALYSIS

Martina Zámková^{1,2}, Martin Prokop¹

¹ Department of Mathematics, College of Polytechnics Jihlava, Tolstého 16, 586 01 Jihlava, Czech Republic

² Department of Statistics and Operation Analysis, Faculty of Business and Economics, Mendel University in Brno, Zemědělská 1, 613 00 Brno, Czech Republic

Abstract

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This article aims to collect information related to organic farming. It also deals with the assessment and comparison of shopping behaviour in the organic food market in the Czech and Slovak Republics. Respondents from the Czech Republic and the Slovak Republic were addressed within the marketing research – survey and potential factors that could affect young people when buying organic products were formulated. There were also established recommendations to retailers of organic products on how to promote the sales of this item to the young generation of Czechs and Slovaks.

For statistical data processing we used correspondence analysis and contingency tables analysis. Correspondence analysis is a multivariate statistical technique. The graphical representation of results from correspondence analysis is commonly done with so-called symmetric maps. Based on the results the target groups for marketing strategy were identified and proposals to increase the frequency of buying organic food were formulated.

It has been proven in the Czech and the Slovak Republic that there is a negligible amount of young respondents who buy organic food regularly (less than 8%), and therefore it is necessary to change the existing marketing strategy and support the sale of this item.

Keywords: organic products, shopping patterns, marketing research, contingency tables, correspondence analysis, dependence analysis, Slovak Republic, Czech Republic

INTRODUCTION

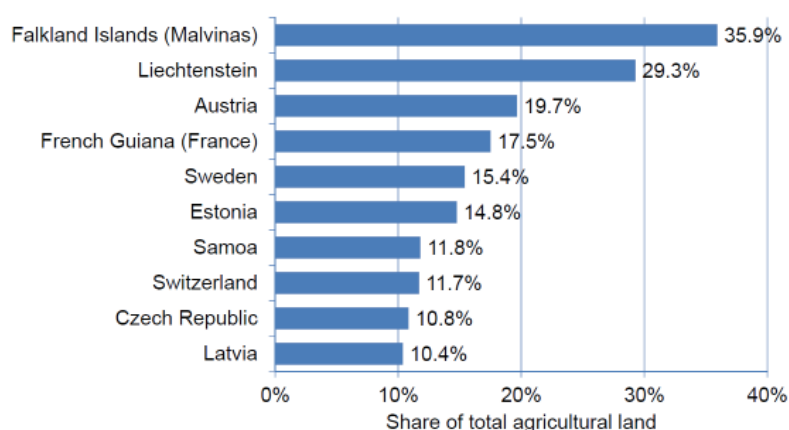
Organic farming has become very up-to-date and discussed topic in recent years. This is caused mainly by the fact that in the developed countries an abundance of food, an increase of civilization diseases and a worsening environment lead to change in thinking and overall environmental awareness. This sector is characterized by progressive development, where new and new organic farms appear each year on the market. This leads to the rapid growth of organic land in proportion to the total agriculture.

Third of the area of organic farming is located in Oceania (33%), followed by Europe (27%)

and Latin America (23%). The largest area is located in Australia (12 million ha), followed by Argentina (4.2 million ha) and the USA (1.9 mill. ha) (FiBL, 2012).

The area in the ecological mode reaches the largest share in the total agricultural area in the Falkland Islands (36%), Liechtenstein (29%) and Austria (20%). Czech Republic then occupies the ninth place (almost 11%), see Fig. 1 (FiBL, 2012).

In the Czech Republic there are cultivated 460,498 ha in organic mode of the total cropped area. In the Slovak Republic there are then cultivated 166,700 ha by organic farming, which is 8.6% of the total cropped area (FiBL, 2012).



1: The countries with the highest shares of organic agricultural land 2011
Source: FiBL, 2013

Organic farming and organic food production has had tradition in the Czech Republic (CR) for more than twenty years as reflected in the action plan of the Ministry of Agriculture. Number of organic farms increased from 836 (2004) while entering the EU to 3,923 (2012). The development and the concept of organic farming in the Czech Republic is fully the responsibility of the Ministry of Agriculture (department of environmental and organic farming). Supervision of compliance with the principles is carried out by three private control and certification organization (KEZ, ABCert and Biokont) under the Ministry's authority. Inspections are conducted at least once a year at all processors and primary producers of organic food (eAGRI, 2013; Organic World, 2013).

After entering of the Slovak Republic (SR) into the EU in 2004, organic farming has experienced a sharp increase in SR. The number of organic farms increased from 127 (2004) while entering the EU to 486 (2010). The development and the concept of organic farming in the SR is fully the responsibility of the Ministry of Agriculture and Rural Development. Supervision of compliance with environmental standards and certification is very transparent in SR, because there is only one authorized inspection organization (Naturalis). Two other supervisory points shall be registered soon (Bio-info, 2012; Naturalis, 2014; Ministry of Agriculture SR, 2013).

METHODOLOGY

In the questionnaire survey analysis we usually obtain categorical data and *contingency tables* analysis is the easy way how to illustrate the data relations. With respect to the kind of the data we use the tests of the independence. According to (Řezanková, 1997) in the case of contingency table of the type $r \times c$ (r is the number of rows, c is the number of columns) we usually use statistics:

$$\chi^2 = \sum_i \sum_j \frac{(n_{ij} - e_{ij})^2}{e_{ij}}, \quad G^2 = \sum_i \sum_j n_{ij} \ln \frac{n_{ij}}{e_{ij}}$$

respectively, e_{ij} is an expected and n_{ij} observed frequency. We use the statistic χ^2 in Pearson's chi-square test, G^2 in likelihood-ratio test. These two statistics have asymptotically $\chi^2_{(r-1)(c-1)}$ distribution with the presumption of the independence (Hindls, 2003). Null hypothesis of independence was tested at 5% significance level. For the evaluation of the test we use p -value, it means probability of wrong rejection of null hypothesis. For the p -value less than significance level null hypothesis of independence is rejected.

Previous tests can be used in the case of high expected frequencies in the contingency table (more than 5 for each cell), see (Hendl, 2006). In some studies this rule is not so strict, it is enough to have at most 20% of frequencies less than 5 but all of them more than 1, see (Agresti, 1990). According to (Anděl, 2005) if the frequencies are too small, we can use Fisher's exact test or we can calculate simulated p -value of χ^2 statistic.

Correspondence analysis (CA) is a multivariate statistical technique. In a similar manner to principal component analysis, it provides a means of displaying or summarizing a set of the data in two-dimensional graphical form.

All data should be nonnegative and on the same scale for CA to be applicable, and the method treats rows and columns equivalently. It is traditionally applied to contingency tables, CA decomposes the chi-squared statistic associated with this table into orthogonal factors.

According to (Nenadič, Greenacre, 2007), as in principal component analysis, the idea in CA is to reduce the dimensionality of a data matrix and visualize it in a subspace of low-dimensionality, commonly two- or three-dimensional. The data of interest in simple CA are usually a two-way contingency table or any other table of nonnegative ratio-scale data for which relative values are

of primary interest. The CA solution was shown by (Greenacre, 1984) to be neatly encapsulated in the singular-value decomposition (SVD) of a suitably transformed matrix.

The total variance of the data matrix is measured by the inertia, see, e.g., (Greenacre, 1984), which reassembles a chi-square statistic but is calculated on relative observed and expected frequencies.

The weighted sum of squares of the coordinates on the k -th dimension (i.e., their inertia in the direction of this dimension) is equal to the principal inertia (or eigenvalue) α_k^2 , the square of the k -th singular value, whereas the standard coordinates have weighted sum of squares equal to 1. The implementation of the algorithm follows (Blasius, Greenacre, 1994).

The graphical representation of results from CA is commonly done with so-called symmetric maps. In that case, the row and column coordinates on each axis are scaled to have inertias equal to the principal inertia along that axis: these are the principal row and column coordinates. Depending on the situation, other types of display are appropriate. This can be set with the scaling option map in the plotting functions for CA.

Software UNISTAT and STATISTICA was used for processing of primary data.

RESEARCH RESULTS

Slovak Republic

147 respondents participated in the Slovak Republic in marketing research, which was conducted through a questionnaire survey¹. The questionnaire was distributed electronically. Data collection was held from 20st November 2013 to 22st December 2013. More women (68%) than men (32%) participated in the study. Typical respondent's age was ranged from 16 to 25 years. Regarding education, respondents were mostly college students and therefore most frequently reported highest level of education was – high school graduation.

It can be stated that this was not a representative sample with respect to the population, but for the fulfilment of the objectives of this article a sample of young respondents is entirely appropriate. It must address especially young people to buy organic food more and more frequently, because young people are potential customers for many years (Zámková, Prokop, 2013).

Monthly household income of respondents varies mostly around 800–1,600 Eur, while most respondents live in a four-person household. Young people who were addressed do then their purchases mostly in municipalities with a population of 20,000–50,000 (26.5%), eventually in towns with

50,000–200,000 inhabitants (19.7%). Representation of other groups is relatively balanced, so the recommendations can be directed to all organic food sellers all over the Slovak Republic.

It is also clear from the survey that young people pay attention the most to the quality of the sold food (93.2%), respondents are also interested in the price of food (89.8%), their appearance (66.7%) and easy availability (61.9%). Respondents don't care too much about brand or place of origin of food.

When asked: *What is the organic food in your opinion, what do you recall under this title, what do you associate with this term?* respondents answered as follows:

- Organically grown, without chemicals (87.1%).
- Healthy, healthier food (49.7%).
- Expensive, more expensive food (41.5%).
- Animals rooming free, not stressed, nourished without compound feeding stuffs (44.2%).
- Food without preservatives, emulsifiers, rational nutrition (46.9%).
- Higher quality food (37.4%), etc.

Respondents appropriately marked most often that organic products are products grown organically, without chemicals. However, an interesting fact is that a relatively large proportion of respondents associated organic food most often with the fact that it is an expensive food.

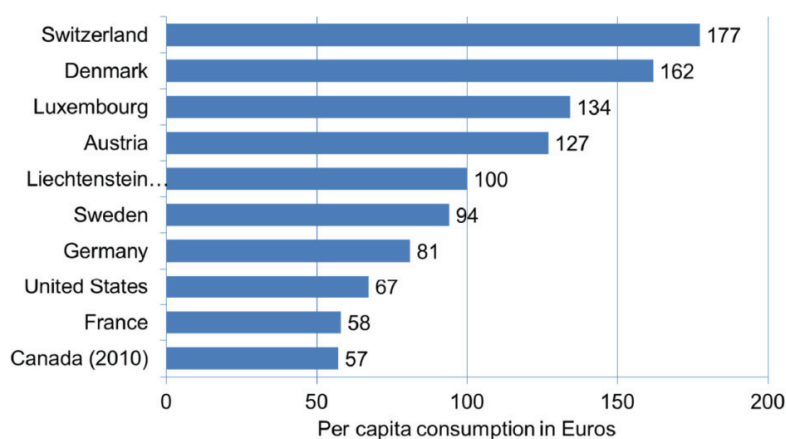
It resulted from the answers to the next question that 79.6% of respondents believe that organic foods are healthier than conventional food and 77.5% think they are of better quality, but only 39% of respondents consider organic food more flavoursome and only 35.4% think they are more attractive than conventional food.

To the question: *Is organic food part of assortment in your favourite store?* 61.9% of respondents answered that yes. The finding that 17% of respondents haven't looked for organic food in the store so far is surprising. Only 45.6% of respondents are persuaded about sufficiently recognizable organic food in stores. 78.9% of respondents then agree with the support of organic farming from public sources (European and national subsidies).

Only 35.4% of young people think that organic foods are sufficiently publicized, and surprisingly 11.6% of respondents have not even seen advertising for organic food. If addressed people saw advertising, it was mostly in the magazine and newspaper.

The question: *Do you buy organic food in your household?* respondents answered as follows: Yes, regularly (8.2%); Yes, sometimes (51.7%); No, never (27.9%); I don't know, I don't follow whether it is organic food (12.2%). It is clear that there is a large amount of young people who don't buy organic food. It is therefore necessary to do basic steps to convince young people that buying organic food makes sense.

1 For further details see Foret, Stávková (2003), Kotler (2007) or Příbová (1996)



2: The ten countries with the highest annual consumption of bioproducts per capita (EUR), 2011
Source: FiBL, 2013

If respondents don't buy organic food, they stated that the main obstacle for them is the financial aspect – the higher price of organic food (27.9%). Furthermore they stated that they don't believe that organic food is better, non-chemical (15.6%), that it is an unnecessary luxury and no difference (14.3%) and also that organic food is not attractive (12.2%).

If respondents buy organic food, they make their purchases of organic food mostly in hypermarkets and supermarkets (31.3%). Another frequent answer was health food and organic food stores (16.3%), approximately 5.4% of respondents attend farms and farmers markets. A relatively large part of respondents then stated that they grow the organic food by themselves (17.7%).

The research also shows that most respondents spend money on organic fruit and vegetables, then for bio milk and dairy products, also for bio flour, cereals and for bio delicacies as well and for meat and sausages. Domestic food production predominates in the available assortment of organic products.

To the question: *How often do you buy organic food in your household?* respondents most frequently responded that about once per month. And to the question: *How much do you approximately spend on buying organic food per year in your household?* respondents answered mostly 4–20 EUR, respectively less than 4 EUR. It is therefore evident that the Slovaks spend little for organic food per year (if buying), the amount invested in organic food ranges mainly from 0 to 20 EUR. If we look at the comparison with countries with the highest annual per capita consumption of organic food (EUR), see Fig. 2, it is clear that there is still room for improvement.

Switzerland has the highest annual per capita consumption of organic food with the amount of 177 EUR. On the contrary, consumers in southern, central and eastern Europe spend on organic food at least. Average annual per capita consumption in the Czech Republic in 2010 was

about 6 EUR, 3 EUR in Hungary, around 2 EUR in Poland and Slovakia.

The observed sample of young respondents from Slovakia is thus high above the national average of annual per capita consumption of organic food in Slovak Republic. However, in comparison with other countries there is still much room for improvement.

Czech Republic

1,217 respondents participated in the Czech Republic in marketing research. The questionnaire was distributed electronically again (20st November 2013 to 22st December 2013). More women (75.4%) than men (24.6%) participated in the study. Typical respondent's age was ranged from 16 to 25 years. Regarding education, most of Czechs marked – high school graduation (87%). This was again not a representative sample with respect to the population, but as has been already written, for the fulfilment of the objectives of this article this sample of young respondents is entirely appropriate.

Monthly household income of respondents varies mostly around 20,000 to 40,000 CZK, while most respondents live in a four-person household. They do their purchases most often in the municipalities with a population up to 2,000 inhabitants (25%), respectively in the towns with 5,001–20,000 inhabitants (22.4%).

It is also clear from the survey that young people pay attention the most to the quality of the sold food (95.8%), respondents are also interested in the price of food (91.1%), their appearance (79.9%) and easy availability (65.9%). When asked: *What is the organic food in your opinion, what do you recall under this title, what do you associate with this term?* the respondents answered as follows:

- Organically grown, without chemicals (90.3%).
- Expensive, more expensive food (50.5%).
- Animals rooming free, not stressed, nourished without compound feeding stuffs (45.1%).

- Healthy, healthier food (43.5%), ect.

What is interesting again, a relatively large part of Czech respondents associates organic food most frequently with the fact that it is expensive.

It resulted from the answers to the next question that 77.1% of respondents believe that organic foods are healthier than conventional food and 76.5% think they are of better quality, but only 41.2% of respondents consider organic food more flavoursome and only 30.6% think they are more attractive than conventional food. Czechs do the shopping in stores, where organic foods are part of assortment and are convinced that the organic products are sufficiently recognizable in the stores. 64.5% of the respondents agree with the support of organic farming from public sources.

Only 42.6% of young Czechs think that organic foods are sufficiently publicized, and surprisingly 13.3% of respondents have not even seen advertising for organic food. If addressed people saw advertising, it was mostly in the magazine and newspaper, similarly as in the Slovak Republic.

The question: *Do you buy organic food in your household?* respondents answered as follows: Yes, regularly (3.9%); Yes, sometimes (43.1%); No, never (39.4%); I don't know, I don't follow whether it is organic food (13.7%). It is thus evident that there is a large amount of young Czechs who don't buy organic food. It is therefore necessary to do basic steps to convince young people that buying organic food makes sense. If respondents don't buy organic food, they stated that the main obstacle for them is the financial aspect – the higher price of organic food (34.3%). Furthermore they stated that organic food is not attractive for them (19.6%) and that they don't trust it is non-chemical, better food (15.5%).

If respondents buy organic food, they make their purchases of organic food mostly in hypermarkets and supermarkets (24.2%). Next frequent answer was health food and organic products stores (18.3%). The research also shows that most respondents spend money on organic fruit and vegetables, as well as organic milk and dairy products. Domestic food production predominates in the available assortment of organic products.

To the question: *How often do you buy organic food in your household?* respondents most frequently responded that not at all or only less than once a month. And the question: *How much do you approximately spend on buying organic food per year in your household?* respondents answered mostly 101–500 CZK, respectively less than 100 CZK. Thus they answered similarly as the Slovaks, and therefore there is also a room for improvement.

Correspondence Analysis and the Analysis of Contingency Tables

It is clear from the contingency table of row relative frequencies that Czech women buy organic food more often than men, then it is clear that men quite often don't follow the origin of food, see Tab. I. During testing of independence we found the value of $\chi^2 = 23.65$ with $p < 0.001$. We can talk about the dependence between gender and frequency of purchasing of organic food.

Similar dependence resulted in the Slovak Republic (see Tab. II), Slovak women buy organic products more frequently than men as well.

Within the correspondence analysis two answers to the questions were considered: *Do you buy organic food in your household?* and *Monthly income of your household* (see Fig. 3).

From Fig. 3 it is evident that Czech households with the lowest incomes (roughly up to 20,000 CZK per month) rather don't buy organic products, richer households (up to 60,000 CZK per month) buy organic food at least occasionally.

The analysis of contingency tables of row relative frequencies shows the same dependence of respondents from the Czech Republic, when with the growing income up to 60,000 CZK a share of household buying organic food rises. The figure for households 60,000–70,000 CZK is not relevant considering the small number of respondents with this income, see Tab. III. No dependence between the frequency of purchases and monthly household income was proven in the Slovak Republic.

Other responses to the following questions were observed: *Do you buy organic food in your household?* and *How many children are in your family?*

I: Contingency table – Czech Republic: Your sex? and Do you buy organic food in your household?

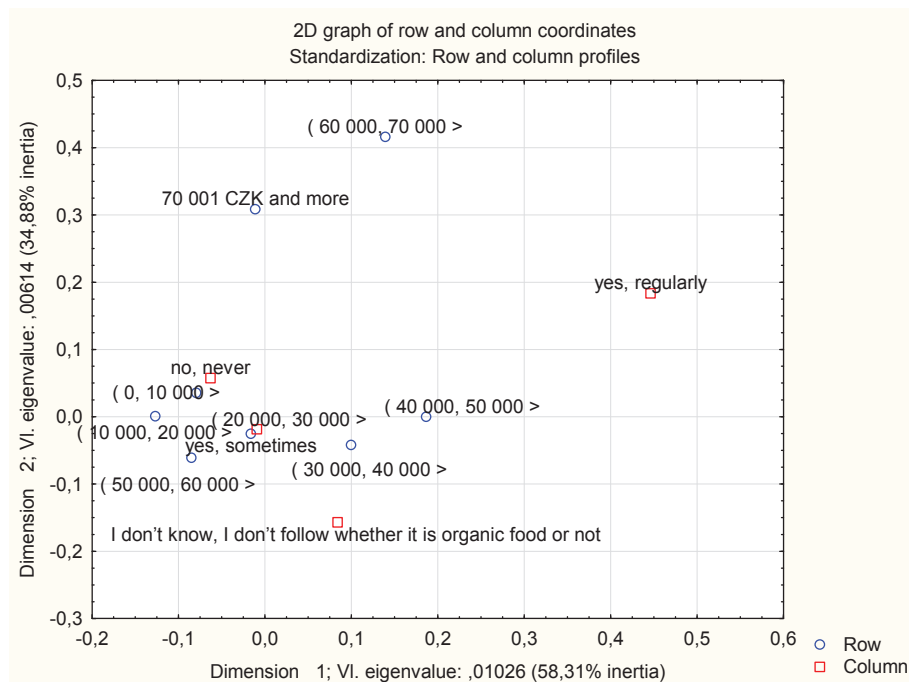
Row relative frequencies	Yes, regularly + Yes sometimes.	No, never.	I don't know, I don't follow whether it is organic food or not.
Woman	49.35%	39.54%	11.11%
Man	39.47%	38.80%	21.74%

Source: own calculation

II: Contingency table – Slovak Republic: Your sex? and Do you buy organic food in your household?

Row relative frequencies	Yes, regularly + Yes sometimes.	No, never.	I don't know, I don't follow whether it is organic food or not.
Woman	63.00%	26.00%	11.00%
Man	53.19%	31.91%	14.89%

Source: own calculation



3: Correspondence analysis – Czech Republic: Do you buy organic food in your household? and Monthly income of your household.

Source: own calculation

III: Contingency table – Czech Republic: Monthly income of your household. and Do you buy organic food in your household?

Row relative frequencies	Yes, regularly + Yes sometimes.	No, never.	I don't know, I don't follow whether it is organic food or not.
(0, 10 000)	43.27%	43.97%	12.77%
(10 000, 20 000)	44.87%	42.74%	12.39%
(20 000, 30 000)	47.48%	38.55%	13.97%
(30 000, 40 000)	47.41%	36.25%	16.33%
(40 000, 50 000)	50.00%	34.38%	15.63%
(50 000, 60 000)	50.00%	37.04%	12.96%
(60 000, 70 000)	45.00%	50.00%	5.00%
70 001 CZK and more	51.61%	45.16%	3.23%

Source: own calculation

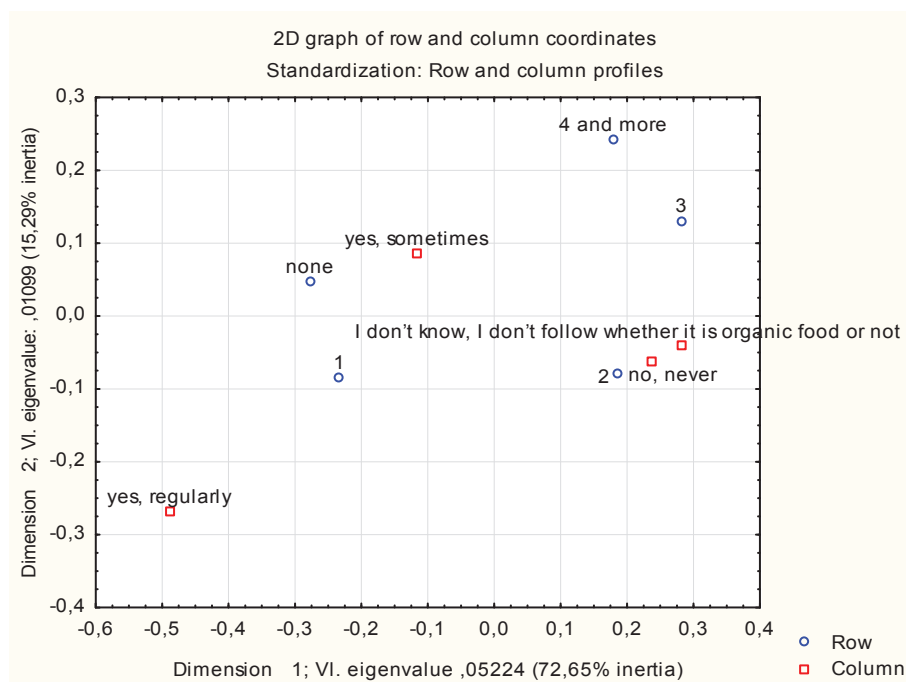
It is very well visible from the graphical output on Fig. 4 that the Slovak households with a small number of children and childless households buy organic food occasionally or regularly, while households with more children (2 or more) rather don't buy organic food or don't follow the origin of food. A similar dependence was not observed in the Czech Republic.

Other answers to the following questions were discussed: *Do you buy organic food in your household?* and *How many inhabitants are in the municipality where you live and shop?* It is clear from the graph in Fig. 5 that Czech households in small municipalities (under 20,000 inhabitants) rather don't buy organic food or don't follow the origin of food. And the inhabitants of the larger cities (up to 200,000 inhabitants) buy organic food at least occasionally.

In the Slovak Republic, see Fig. 6, inhabitants of small municipalities (up to 2,000 inhabitants) rather don't buy organic products and inhabitants of bigger municipalities (2,001–50,000 inhabitants) buy organic products at least occasionally or they don't follow the origin of food. Inhabitants of big cities (above 200,000 inhabitants) buy organic food mostly regularly.

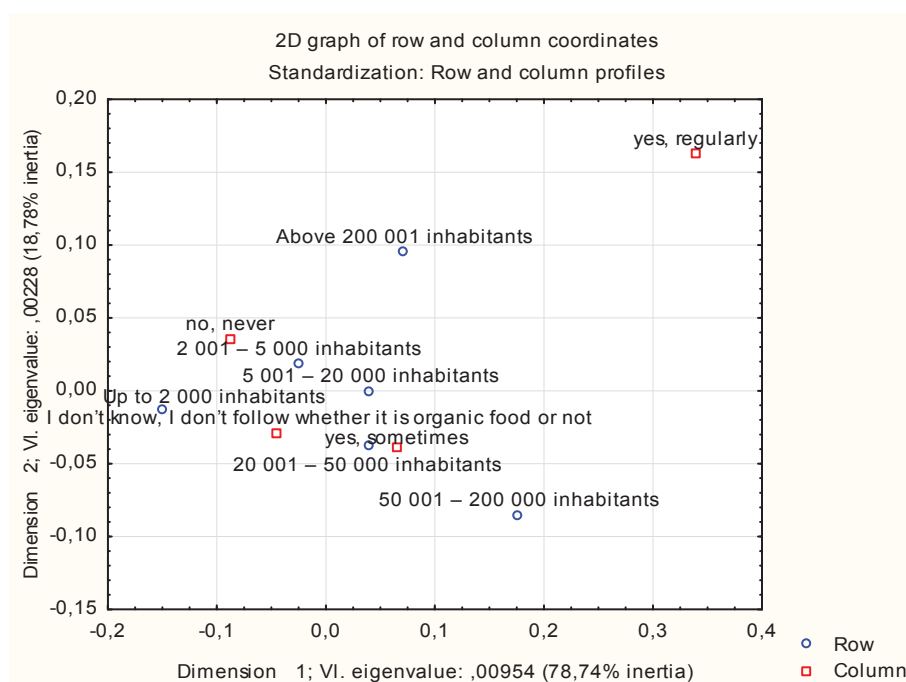
Other answers to the following questions were discussed: *Do you buy organic food in your household?* and *How many members are in your household?* From the graphical output in Fig. 7 it is well visible that in the Czech Republic smaller households (up to 2 members) buy occasionally organic products while multi-member households rather don't buy organic product or don't follow the origin of food.

It is then apparent from the contingency table of row relative frequencies that with the increasing



4: Correspondence analysis – Slovak Republic: Do you buy organic food in your household? and How many children are in your family?

Source: own calculation



5: Correspondence analysis – Czech Republic: Do you buy organic food in your household? and How many inhabitants are in the municipality where you live and shop?

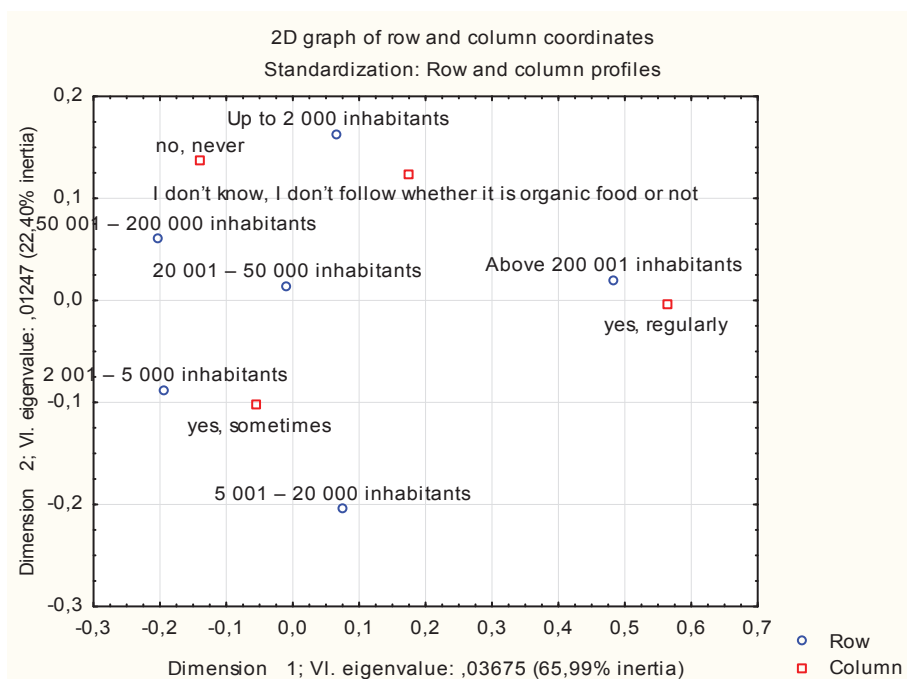
Source: own calculation

number of members of Czech households, the share of households buying organic food decreases (see Tab. IV).

Slovak smaller households up to two members buy organic products regularly or occasionally. For multi-member households (3–4 members), is

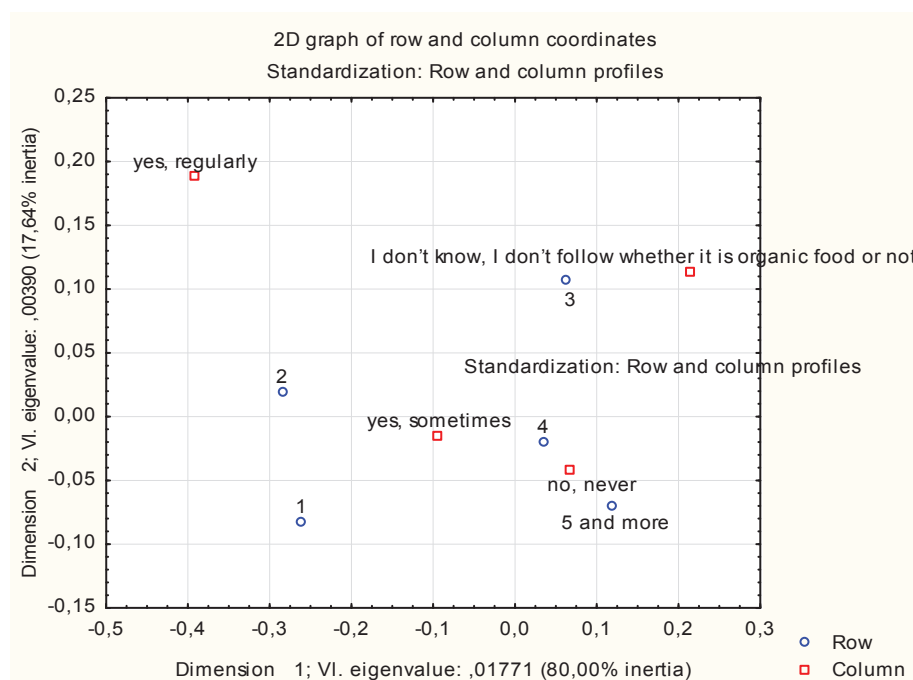
the proportion of buyers smaller and 5 or more membered households usually don't follow the origin of food (see Fig. 8).

Other answers to the following questions were discussed: *Do you buy organic food in your household?* and *Your age?* From the graph on Fig. 9 it is evident



6: Correspondence analysis – Slovak Republic: Do you buy organic food in your household? and How many inhabitants are in the municipality where you live and shop?

Source: own calculation



7: Correspondence analysis – Czech Republic: Do you buy organic food in your household? and How many members are in your household?

Source: own calculation

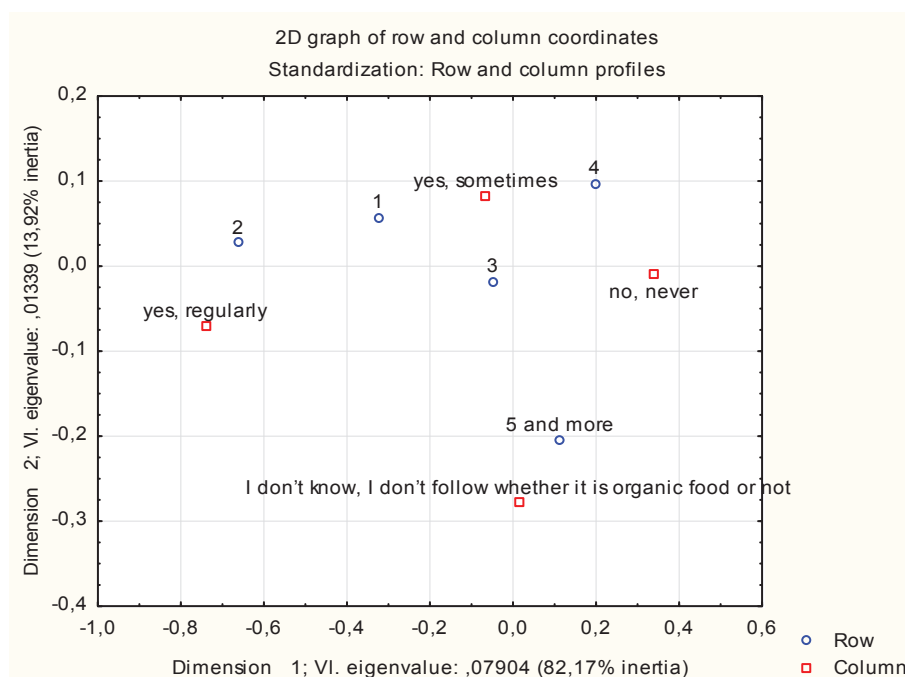
that young people up to 25 years don't buy organic food or don't follow the origin of food. Respondents at the age of 26 to 55 years buy organic food regularly or occasionally. No significant dependence on age was proven in the Slovak Republic.

Within the correspondence analysis the answers to following questions were then evaluated: *Do you buy organic food in your household?* and *Your highest level of education?* In the Czech and Slovak Republic there was not proven dependence of the purchase on the highest level of education of respondents.

IV: Contingency table – Czech Republic: How many members are in your household and Do you buy organic food in your household?

Row relative frequencies	Yes, regularly + Yes sometimes.	No, never.	I don't know, I don't follow whether it is organic food or not.
1	60.00%	33.33%	6.67%
2	57.96%	34.39%	7.64%
3	44.75%	37.35%	17.90%
4	45.41%	40.61%	13.98%
5 and more	41.63%	43.89%	14.48%

Source: own calculation



8: Correspondence analysis – Slovak Republic: Do you buy organic food in your household? and How many members are in your household?

Source: own calculation

Other answers to the following questions were monitored: *Do you buy organic food in your household?* and *Have you ever seen an advertising for organic food?* It can be seen in the graph Fig. 10 that respondents from the Czech Republic, who have never seen advertisement or don't know where they have seen it, don't buy organic food. Respondents from the Czech Republic, who have seen advertising on the Internet, in newspapers or magazines buy organic products occasionally. Those respondents, who have seen the advertisement for organic products on TV, don't follow the origin of food. The Slovak respondents, who have seen the advertisement on TV, mostly don't buy organic food.

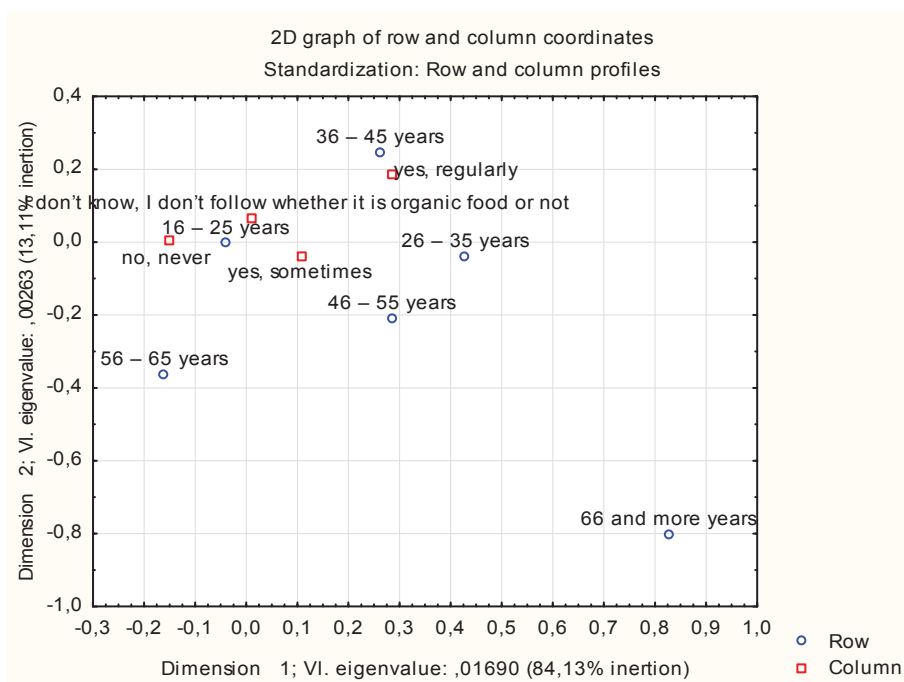
Similar dependence is evident for the Czech Republic also from the contingency table of row relative frequencies, see Tab. V.

It is well visible from the contingency table of row relative frequencies (Tab. VI) that with the increasing income Czech households are more willing to buy more expensive organic products.

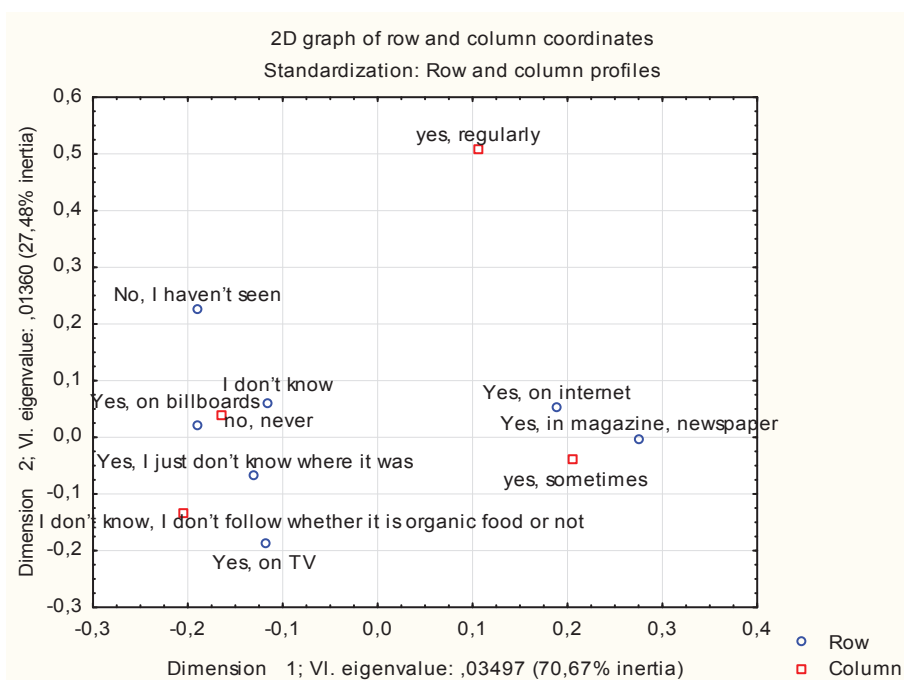
DISCUSSION AND CONCLUSION

The aim of this article was to assess the buying behaviour of young respondents in the organic products market by using knowledge gained from surveys in Czech and Slovak Republic and make a comparison. At the same time the aim was to formulate factors that affect young people when buying this item. In conclusion the goal was then to make recommendations to retailers how to promote the sales of organic food among the young generation of Czechs and Slovaks.

It is evident from the research that the attitude of the Czechs and Slovaks to purchasing of organic products is very similar. It has been proven in the Czech and Slovak Republic that there is still a very small amount of young respondents who buy organic food regularly. In the Czech Republic there are almost 4% of respondents buying organic food regularly and in the Slovak Republic, there are 8% of regular buyers of organic products. Of course, then there are also respondents who buy organic products occasionally or those who do not follow,



9: Correspondence analysis – Czech Republic: Do you buy organic food in your household? and Your age?
Source: own calculation



10: Correspondence analysis – Czech Republic: Do you buy organic food in your household? and Have you ever seen an advertising for organic food?
Source: own calculation

whether it is BIO or not and it is precisely the target groups that needs to be convinced that buying BIO regularly makes sense.

Organic food purchases are provided mostly by women in both countries, as is evidenced by the analysis of contingency tables. Marketing strategies should be therefore focused right

on the women who build up stocks in Czech and Slovak households.

The correspondence analysis then shows that the existing advertising is totally insufficient and probably inappropriate. Respondents of our survey agree that advertising on organic products broadcasted on TV didn't draw their attention at all.

V: Contingency table – Czech Republic: Do you buy organic food in your household? and Have you ever seen advertising for organic food?

Row relative frequencies	Yes, regularly + Yes sometimes.	No, never.	I don't know, I don't follow whether it is organic food or not.
Yes, in magazine, newspaper	60.51%	30.07%	9.42%
Yes, on internet	56.55%	32.74%	10.71%
Yes, on TV	40.57%	40.57%	18.86%
Yes, I just don't know where it was	40.28%	43.06%	16.67%
I don't know	40.95%	46.46%	12.60%
No, I haven't seen	38.27%	48.15%	13.58%
Yes, on billboards	38.09%	42.86%	19.05%

Source: own calculation

VI: Contingency table – Czech Republic: Monthly income of your household. and How much do you approximately spend for buying organic food in your household per year?

Row relative frequencies	Less than 100 CZK	101–500 CZK	501–1 000 CZK	1 001–2 000 CZK	More than 2 001 CZK	I don't know	Nothing, I don't buy it
(0, 20 000)	31.01%	59.97%	9.94%	1.85%	0.43%	50.61%	46.20%
(20 000, 40 000)	22.81%	49.36%	16.75%	5.15%	2.15%	63.32%	40.47%
(40 000, 60 000)	23.82%	37.06%	18.35%	13.95%	1.56%	58.25%	47.02%
60 001 CZK and more	12.90%	26.45%	37.58%	22.90%	0.00%	52.58%	47.58%

Source: own calculation

If any advertising affect them, then it's mostly just in magazines, newspapers and on the Internet. It can be therefore stated again that the marketing strategy of organic food retailers has cracks. After all television is a daily source of information for many people, and therefore advertising affecting from TV could have a far greater effect and encourage customers to buy organic products more.

It is evident from further analysis that households with higher incomes both from the Czech Republic and Slovakia are more willing to buy more expensive organic food and in greater quantities. This may be caused by the fact that wealthier respondents are far more conscious and informed and they know that buying organic food makes sense. Therefore, right the young respondents should be enticed to more frequent purchases of organic food. They are potential university educated persons who will earn higher amounts in the future, and therefore advertising directed to young people now could really confirm them that organic products are the right way for modern healthier life style.

It is also apparent from the research that the Slovak households with higher number of children don't buy organic products too much. On the contrary, households with higher number of children in the Czech Republic sometimes buy organic products, which can be explained by the fact that the system of social children benefits is probably set in a more appropriate way in the Czech Republic which allows these families to achieve organic products financially.

Not surprising result is that smaller households up to two members buy organic products more often than multi-member households, both

in the Czech Republic and in the Slovak republic. This is especially the financial aspect, when the household expenses increase with every further member of the household and therefore there were apparently not left the funds to buy the more expensive organic food. It is also clear that a huge number of respondents associate organic products right with the fact that it is expensive, more expensive. Here we would recommend to retailers considering whether to include organic products in various promotional discounts or not, because discounts on organic products can be actually seen only sporadically in stores. This could entice customers and make them sure that organic food is not only expensive food.

This is related to our next recommendation which is to think of the packaging of organic food. So far packaging of these products has not been very appealing and eye-taking. Let's admit to ourselves that also package sometimes sells and entices customers. Respondents from the Czech Republic and Slovakia agree that organic products are not attractive for them, whether in terms of packaging or misunderstanding why is organic food exceptional. Again, we see space for improvement, both in the creation of more colourful packaging that attracts and in vigorously assuring customers that the controls carried out by monitoring organizations are consistent and really guarantee quality of organic products.

It also follows from the correspondence analysis that if individuals come from small towns and villages they mostly don't buy organic food and prefer to grow them by themselves at home in the garden. Residents of larger cities then already

buy organic products occasionally or regularly. It is therefore necessary to address advertising in this direction, to customers in bigger cities. We suggest e.g. offering them a contact with the countryside through farmers markets and thereby confirming them in the benefits that organic foods have.

It is also clear from other reactions of respondents that if people buy organic food, they spend only a negligible amount on it. In the Czech Republic it

is about 101 to 500 CZK per year, respectively only less than 100 CZK. In the Slovak Republic it is then mostly 4–20 EUR, respectively less than 4 EUR per year. In comparison with other European countries (see Fig. 9) it is really a low amount spent on organic food. Therefore, it is really necessary to change advertising strategies and campaigns and support sales of this article more.

SUMMARY

This article primarily was aimed to collect data on organic farming. Furthermore it was aimed to compare purchasing behaviour in the organic market in the Czech and Slovak Republic by using of marketing research. Another goal was to formulate the factors that affect young respondents from the Czech Republic and the Slovak Republic when buying this item. And last but not least, it was aimed to make recommendations to retailers to promote sales of organic food among the young generation of Czechs and Slovaks.

1,217 respondents participated in the survey in the Czech Republic, 147 respondents participated in the Slovak Republic. It is evident from the research that the attitude of the Czechs and Slovaks to purchasing of organic products is very similar. It was proven in the Czech and the Slovak republic that there is a negligible amount of young respondents buying organic products regularly (less than 8%) and thus it is necessary to change the existing marketing strategies and to promote the sales of this item.

The correspondence analysis then shows that the existing advertising is totally insufficient. Respondents of our survey agree that advertising on organic products broadcasted on TV didn't draw their attention at all. If any advertising affect them, then it's mostly just in magazines, newspapers and on the Internet. Advertising should be therefore changed in our opinion, it should attract customers, draw attention and inform. The target group is then mainly represented by the women, from the results of this research they do shopping more often in the Czech Republic and in the Slovak Republic as well. And at the same time it is necessary to focus on young people, who buy organic food according to the results of the analysis only occasionally or do not follow, whether it is organic or not. It is then also apparent from the correspondence analysis that households with higher incomes, both in the Czech Republic and in the Slovak Republic, are more willing to buy more expensive organic food and in larger quantities. It concerns conscious and informed respondents who know that it makes sense to buy organic food. Therefore, it is necessary to direct advertising to younger people, college students, and by the help of marketing to reassure them that organic products are the right way for the modern healthy lifestyle.

It is also noticeable from other reactions of respondents that many addressed Slovaks make purchases of organic food about once a month and a bigger part of Czech respondents even less often than once a month. At the same time, respondents spend only a really negligible amount on organic products. It is about 101 to 500 CZK per year, respectively just less than 100 CZK in the Czech Republic. The Slovaks then spend mostly 4–20 EUR on organic products, respectively less than 4 EUR per year. It is really low amount compared with other developed European countries. Therefore, the marketing strategies must be changed in any case and the sales of organic products should be promoted.

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Contact information

Martina Zámková: martina.zamkova@centrum.cz
Martin Prokop: martin.prokop@vspj.cz