

REGIONAL DIFFERENCES OF CONSUMER PREFERENCES WHEN SHOPPING FOR REGIONAL PRODUCTS

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Abstract

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This paper presents partial results of a research on consumer preferences when shopping for groceries. It is focused on regional products and consumer preferences in relation to the country of origin of food products. The main objective of this paper is to find the existence of spatial relationships between spatial deployment of regional products and consumer preferences for regional products. It will be necessary to create a data model for monitoring the deployment of regional products and also a data model for tracking important indicators of consumer behavior in all regions of the Czech Republic. The results are based on questionnaire survey that was conducted within the period from October 2010 to January 2011 on a sample of 3767 respondents from the Czech Republic, via both online questionnaires and their printed version. For the data collection the questionnaire system ReLa, developed by the Department of Marketing and Trade at Faculty of Business and Economics at Mendel University in Brno, was used. Data was processed with statistical software STATISTICA (ver. 10). Spatial visualisation was processed with GIS software ArcGIS (ver. 10.1). Preferences for food of Czech origin were analysed in relation to identification criteria. The research results show that the origin of food has an important role in consumer purchase decision-making. There is no significant difference in importance of this factor based on gender of consumers, however, we could prove moderate dependence on respondent's occupation, education and age. We could also experience regional differences in levels of preferences of local products or products of Czech origin in regard of 14 regions of the Czech Republic. χ^2 ($N = 3767$) = 245.25; $p < 0.001$. Value of Pearson's coefficient of contingency is 0.334.

consumer behavior, Czech Republic, region, regional products, local food

What is the appropriate role, if any, for the processor or wholesaler in a local food system? How can collaboration between retail grocers and small farms be best structured to facilitate the local food economy? Also, while there are a variety of outlets for local food, there is a lack of knowledge as to what represents the most rewarding outlet for local food producers. For example, are farmers' markets better placed in an urban centre for greater access to consumers or are they better placed at the rural-urban fringe for better access to producers? Finally, much debate in the popular literature has focused on whether or not a local food industry could

support the demand for the current population. Research on how an alternative agricultural system based on local food can complement, or to some extent replace, the existing industrialized system is needed (Adams, Salois, 2010).

Regional food is considered as a ministry project that includes targets to promote or support food from each regions of the Czech Republic. The website of the Ministry of Agriculture Regional food and Popp (2011) state the reasons, which lead to the fact that consumers and state have an interest in this brand.

The first objective is to supply the food market with foods that are of high quality, tasty, traditional or special. Currently the trend is to import goods from abroad. The reasons are clear, their price is often not as high as what our producers can offer. Foreign products often do not have qualities like the local ones. To support longer durability, many times there are some added artificial flavours or other taste-supporting substance. This is not just products that are typically seasonal (vegetables and fruit), but also dairy and meat products, etc. The advantage of these products is their specific taste. At present, we often see that the regions of the Czech Republic start discovering their unique products. The second objective is to ensure freshness, due to reduced distribution routes. Local products will quickly reach to the consumer in foods are preserved valuable substances that are beneficial to the consumer (Popp, 2011).

In his paper Hingley (2010) discussed the concept of local and regional food. It is a food that is produced, has undergone processing phase and is dedicated to sales in a predetermined area. His experience was that local food is mostly offered at the regional level in the supermarket. Consumer research specified in the paper points out the obstacles leading to low demand for this kind of food, such as: price, availability and awareness.

Quality labels should be perceived not only as a sticker on a product packaging, but they should give valuable information to the consumers as well as to the other market entities. Quality labels enhance the marketability and competitiveness of products, and also help build a better image of a product and its producer both on domestic and international market (Velcovská, 2012).

What the situational influence also concerns, Bártová, Bárta and Koudelka (2007) suggest that the buying intentions of a consumer when going shopping are not identical to the actual purchase. There might be circumstances that may negatively impact purchasing decisions. The authors also mention an impact of consumers' attitudes towards buying local food (of Czech origin), based on the region where the respondents live.

METHODS AND RESOURCES

This paper presents results of primary research, which is focused on preferences of Czech consumers when buying food, especially regional food products. The objective of the article is to assess the consumer behavior in the Czech Republic in connection to consumer perception of food origin. In this paper the interest focuses on finding out how the consumers perceive Czech food products, whether they are preferred to foreign ones, and whether consumers prefer foods typical of the region where they live.

Researchers of the Department of Marketing and Trade at FBE MENDELÚ conducted data collection in the period from October 2010 to January

2011 on the sample of 3946 respondents from all regions of the Czech Republic. After elimination of incomplete questionnaires, 3767 questionnaires were processed.

Online data collection was conducted via Research Laboratory (ReLa) Questionnaire System and a printed questionnaire version too. Both sources were merged into one database. Statistical evaluation of the obtained data was conducted with use of STATISTICA (v. 10).

The sample is almost evenly divided into the following three categories accordingly to the size of the place of their residence: up to 3,000 inhabitants, 3,000 to 89,999 inhabitants, and municipalities with 90,000 or more inhabitants. The largest group of respondents was a group that consists of people with secondary education, with leaving exam (50.6%).

There were various social groups of respondents according to their occupation; the two largest groups are a group of students (38.0%) and a group of employees (38.0%).

The most represented age category is 18–24 years of age (34.5%), second largest group consists of age category 35–54 years (22.4%) and the third one of respondents in age category between 25–34 years (17.0%). Men are represented in the sample by 1518 respondents (40.3%) and women are represented by 2249 respondents (59.7%).

Geographical Information System (GIS) software ArcGIS 10.1 developed by ESRI and especially its components ArcCatalog and ArcMap were used for spatial analysis of regional products in the Czech Republic. ArcCatalog is a software used for basic administration of map layers. ArcMap is more sophisticated software used for work with mapping, visualization, spatial analysis and more advanced work with map layers. Map database "Administrative structure and socio-economic data" which is component of map database ArcCR 500 was used for creating map layers used in this research. Map database ArcCR 500 distributed by company ARCDATA Prague, s.r.o. is supplied to government institutions and schools for free. Mapping of regional products was performed by using web site "www.regionálnipotravina.cz", which is a project of the Ministry of Agriculture of the Czech Republic. "Regionální potravina" is a brand awarded by Ministry of Agriculture to agricultural or food products of the highest quality. Awarded products are divided into nine categories:

1. Cooked meat products, including smoked meats;
2. Meat products durable;
3. Cheeses, including curd;
4. Other dairy products;
5. Bakery products, including pasta;
6. Confectionery products, including sweets;
7. Alcoholic and non-alcoholic beverages, with the exception of wine from the grape vine;
8. Fruits and vegetables in fresh or processed form;
9. Other.

Point layer map showing the individual award-winning products was the basis for the evaluation regions of the Czech Republic. Cartograms of individual regions depending on quantities and categories of award-winning products were created with the use of the Structured Query Language (SQL) over the point layer map of the regional products.

Regional Food – food or agricultural product that is produced in the region and comes mainly from domestic sources. In 2010 and 2011 Regional Food label were awarded to 170 regional products. The project “Regional food” awards the brand to support local producers (E-AGRI, 2011).

RESULTS

The main goal of our research was to identify consumer awareness and perception of “local food” preferences and influence of Czech origin on the Czech food products market. Fig. 1 presents levels of preferences of Czech food products with respect to sex of respondents. Respondents could indicate the level of importance of the Czech origin of a food product to them when making a choice in a grocery store on a scale from 1 to 10, where 10 represented the highest level of importance.

It is evident that the selected opinions by men and women are only different. The independence on gender was tested also by the analysis of contingency (p-value = 0.227). In general we can see that majority of both men and women consider the Czech origin as moderately or strongly important influence on their choices of food products. The analyses of contingency, however, provided results, which are proving moderately strong degree of association between the selected values and respondents' occupation, age and education. The

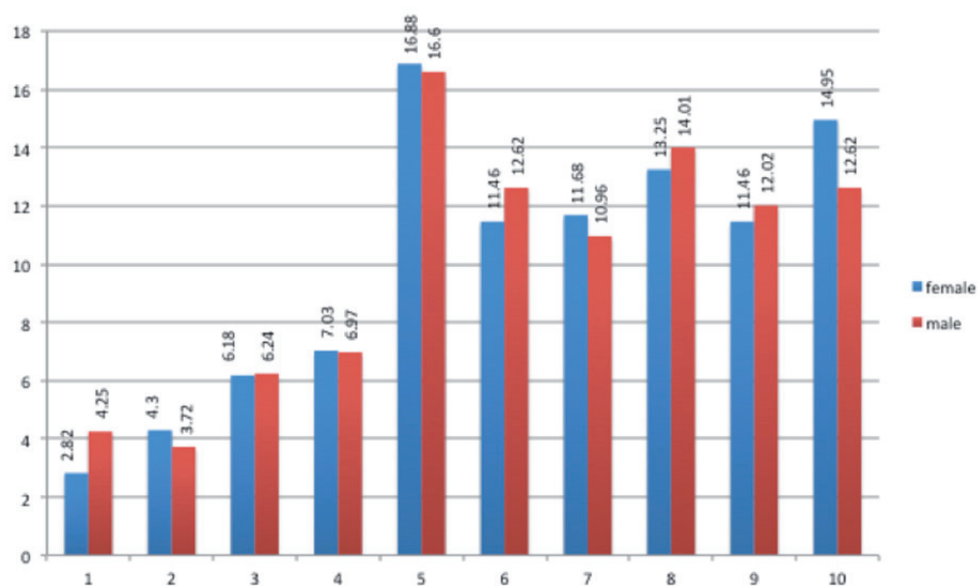
approach to local origin (a particular region of the Czech Republic) is a little bit different, despite the fact we cannot really see big differences between preferences of men and women when dealing with the issue. Again, results of analysis of contingency proved no association between the variables – selected levels of agreement and gender and size of the towns of their residence, but a moderately strong degree of association between the selected values and respondents' occupation, age and education (p-value = 0.000) (Kalábová, Turčínková, 2012).

Fig. 2 represents preference levels of food with Czech origin with respect to region of the Czech Republic where respondents live. The Pearson's chi-square test of independence was used. Statistic testing has confirmed the dependence between regions of respondents and their preferences of Czech origin, χ^2 (N = 3767) = 287.39; $p < 0.001$. Value of Pearson's coefficient of contingency is 0.236.

Similarly levels of preferences of local food with respect to region of the Czech Republic where respondents live were analyzed. The Pearson's chi-square test of independence was used. Statistic testing has confirmed the dependence between regions of respondents and their levels of preferences of food products of Czech origin, χ^2 (N = 3767) = 245.25; $p < 0.001$. Value of Pearson's coefficient of contingency is 0.334.

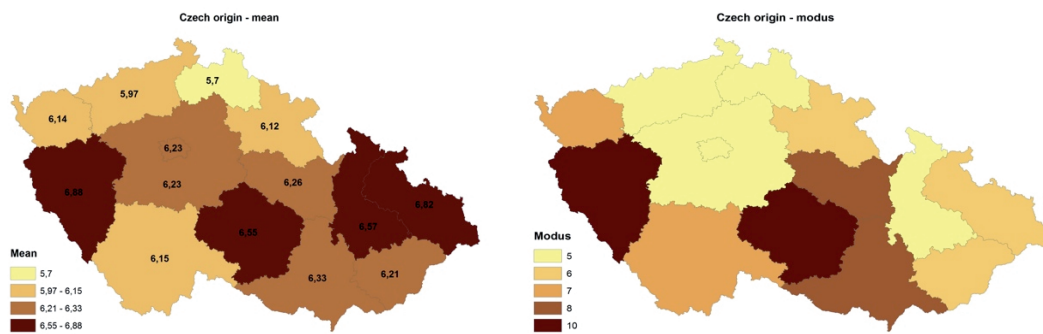
Respondents were also given a list of statements and they had to select a value on scale from 1 to 10 based on their level of agreement with the statement (10 meaning I totally agree).

The last map (Fig. 4) shows the count of the different types of local products awarded with Regional Food brand on the Czech market and in individual regions. The darker the colour, the higher the number of regional (local) products within the region.



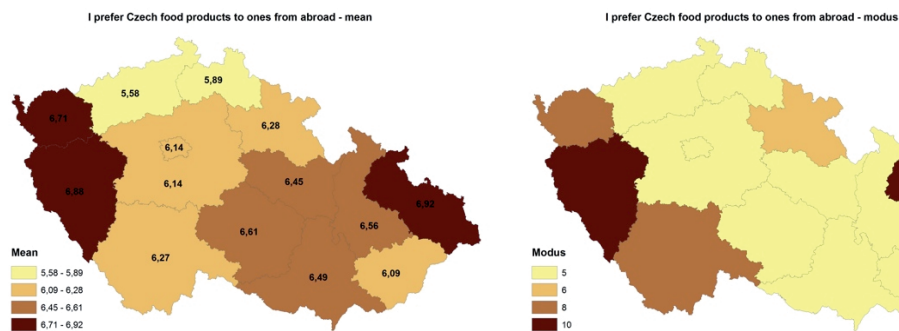
1: I prefer Czech food products to foreign ones (%)

Source: questionnaire survey, October 2010 to January 2011, n = 3767



2: Czech origin – mean and modus

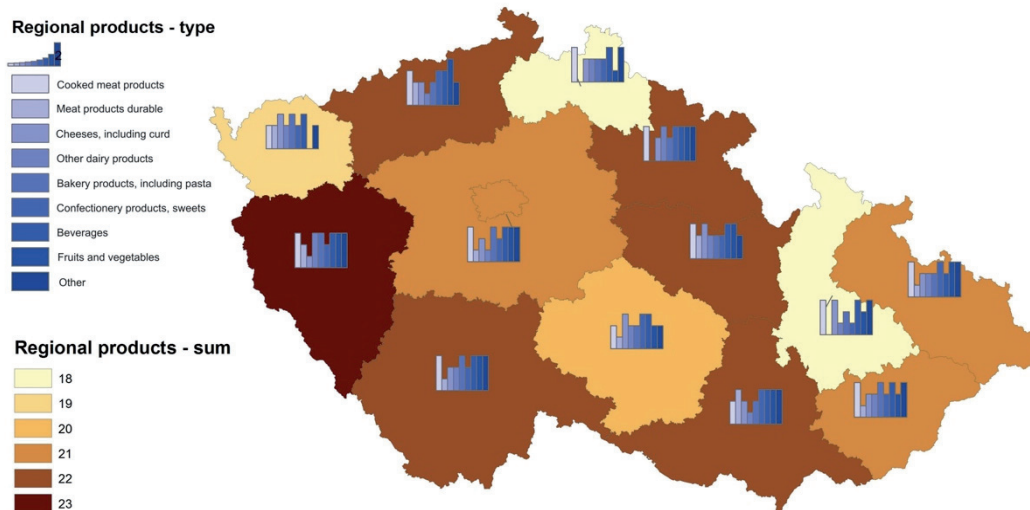
Source: questionnaire survey, October 2010 to January 2011, n = 3767



3: I prefer Czech products to ones from abroad – mean and modus

Source: questionnaire survey, October 2010 to January 2011, n = 3767

Regional products



4: Regional products and their categories in each region of the Czech Republic

Source: questionnaire survey, October 2010 to January 2011, n = 3767

SUMMARY

Product quality is a prime criterion in gaining competitive advantage on the market. Subsequently, quality labels can be a good way for communication a high product quality to the ultimate consumers. They demonstrate to the consumers that a product fulfils not only current standards defined by legal rules, but also additional quality criteria in accordance with market requirements. They give added

value to the product and increase its competitiveness. Products certified with such labels should be perceived as better and having a higher quality. Ideally, quality labels should help the consumers to choose products that meet the specified standards; they should be a guarantee of quality and healthy products.

The Regional food (Regionální potravina) is at this time an integral part of the promotion of agriculture in the regions. In the next few years it is expected to increase awareness not only among producers of these products, but also among consumers of these products. In general, consumers are trying to eat healthily and better. This may be the reason why producers should enter this market. However, among the major threats, that reduce the interest of entrepreneurs and companies in this sector, is reduced purchasing power of consumers due to current economic crisis and imports of cheaper and lower quality products from abroad.

Our research showed that the Czech origin of food products is of moderate or even strong importance to Czech consumers. There is no significant difference between men and women in this respect, with no visible trend showing higher importance to either gender. However, we could find moderately strong degree of association between the level of importance and respondents' occupation, age and education. This might be due to the fact that higher education (many times linked with occupation) leads to more critical approach and also tendency to ethnocentrism, thus preference of local products in order to support local economy. Also age might impact our preference of choosing traditional products over new (foreign) ones. But these assumption would have to be tested.

We could also experience regional differences in levels of preference of local products or products of Czech origin. This may be due to different levels of availability of regional (local) products. But we can see this linkage only partially from what our spatial analysis provided us with. All this phenomena deserve a more detailed analysis and will be in our focus among other aspect in our future research.

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