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Why do Czech consumers purchase organic food?

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Abstract

The objective of this paper is to analyze empirically factors that explain organic food purchase behaviour, using data on a representative sample of inhabitants of Czech Republic. First, socio-demographic characteristics of organic food consumers are examined. Second, the motivational factors and barriers that affect purchase decision-making related to organic food are identified.The results of the study show that organic food is purchased more likely by younger households, households from larger cities and households with the highest income. Health-related beliefs, environmental beliefs, and normative beliefs have positive effect on organic food purchase. On the other hand, low trust in certification system, lack of information and perceived shorter shelf life of organics are the important barriers to organic food consumption.

Introduction

Production, processing, transport and consumption of food form a significant part of the environmental burden. Tukke and Jansen (2006) reviewed studies that analyzed the life-cycle impacts of total societal consumption and the relative importance of different final consumption categories and they found that food contributed 20- 30% to the total environmental impacts. Organic farming represents for many experts, policymakers and for a part of lay public a way to reduce the environmental burden. Furthermore, organic farming can encourage social and economic development of rural regions. The volume of organic food production hinges on, among others, the consumer preferences and purchase behaviour.

Although organic market has been growing fast in the Czech Republic recently (Václavík, 2009), consumption of organic food has been still quite low in comparison to Old EU states and organic food turnover per capita amounted only to € 6,5 (BÖLW 2011).

The knowledge of determinants of organic food purchase behaviour is useful for decision-making of politicians and enterprises involved in the field of organic food production, distribution and sales. This paper is for these reasons aimed at analysis of factors that explain consumer's purchase behaviour related to organic food.

Up to now, we have still relatively little information about factors that influence organic purchase decisions of Czech consumers. In fact, there are available recent descriptive statistics of data representative of general adult population (for example CVVM 2008; Václavík, 2009) and descriptive statistics of some subsamples of the Czech population

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(for example Ogilvy, 2008). However, there are already few studies that examined determinants of organic food purchasing behaviour (Urban et al., 2008i) and willingness to pay for organic food (Urban et al., 2008ii), but these studies analyzed data from representative surveys of Prague and Znojmo region.

However, there are available recent review studies of foreign empirical studies on determinants of environmentally-responsible products consumption (e.g. Boccaletti, 2008; Hughner et al., 2007). Based on the literature review of Czech and foreign studies, we formulated hypotheses that are tested in this paper.

Materials and methods

The data come from two representative surveys of general adult population of the Czech Republic that have been conducted in the turn of November and December 2010. The both surveys took form of structured face-to-face interviews.

The first data come from the omnibus survey conducted on a representative sample of population older than 15 years. Stratified random sampling with quota restrictions for gender, age and region was used to draw sample with size of 1793 observations. This data include information on household food expenditures. In this paper, the data are analyzed using binary logistic model to explain whether respondent's household bought organic food in the last month by the socio-economic and socio-demographic variables.

The second data consist of two subsamples, each with size of 525 observations, totaling to 1050 observations. The subsamples were drawn from the population older than 18 years using quota sampling with quotas for age, gender, education level, and size of the place of residence. The research has been based on the theory of planned behaviour (Ajzen, 1991), which postulates, among others, that "human action is guided by three kinds of considerations: beliefs about the likely outcomes of the behavior and the evaluations of these outcomes (behavioral beliefs), beliefs about the normative expectations of others and motivation to comply with these expectations (normative beliefs), and beliefs about the presence of factors that may facilitate or impede performance of the behavior and the perceived power of these factors (control beliefs)" (Ajzen, 2002: 1). The theory of planned behaviour has been successfully applied on explanation of consumption behaviour. Therefore we gathered data on beliefs about organic food consumption that are analysed in this paper. First, buyers´ and non-buyers´ perception of organic food (belief strengths) are compared using nonparametric tests for the equality of means. Second, belief strength is multiplied by outcome evaluation to get a measure of beliefs. Third, beliefs that have significant effect on organic food purchase are identified using binary logistic model.

Results and discussion

The socio-economic and demographic variables, particularly the household income category, size of the place of residence and the respondent's age, influence whether household purchased organic food last month. Organic food has been purchased more likely by households younger 29 years. There is higher probability that households from cities with more than 100 thousands inhabitants will purchase organic food in comparison with inhabitants of smaller municipalities. The highest odds of purchasing organic food have households in the highest income category, that is households with net monthly income greater than 40 thousands CZK. In the highest income category, 55% of households purchased organic food. Interestingly, the

relationship between household income and organic food purchase is not linear. The results suggest that households with net monthly income between 11 001 and 15 000 CZK purchased organic food significantly less often.

In order to get better understanding of motivation and barriers of organic food purchase behaviour, we examined beliefs related to organic food consumption. Our findings confirm that beliefs of respondents who bought organic food last month (further we call them buyers) significantly differ from beliefs of respondents who did not buy organic food last month (non-buyers).

Organic food buyers more likely state that organic food contains no preservatives and additives, or residuals of animal antibiotics and steroids, and that organic food is more environmentally friendly, healthier, higher quality and tastier than conventional food. However, both buyers and non-buyers perceive health benefits of organic food stronger than environmental benefits. Buyers as well as non-buyers agree that organic food has in general shorter shelf life than conventional food. Buyers perceive shorter shelf life of organic food even stronger.

Important finding is that both buyers and non-buyers do not trust in the organic certification system. Not surprisingly, mistrust of non-buyers is much deeper. Further, organic food is generally perceived as more expensive than conventional food. Non-buyers judge organic food as expensive significantly more often than buyers. According to both groups there is lack of information about organics and insufficient assortment of organics in the stores. Non-buyers are more concerned also about these barriers than buyers.

Buyers´ and non-buyers´ beliefs about the normative expectations of others are very different. Non-buyers perceive that their significant others disapprove, or only slightly approve organic food purchasing, or they have no idea. In contrast buyers think that their significant others, at most their partners, children and friends, approve organic food purchasing.

Finally, we identified beliefs that influenced whether respondent purchased organic food in last month or not. Respondents, who think and highly value that organic food contains no preservatives and additives, organic food is more environmentally friendly and it has in general longer shelf life than conventional food, more likely purchased it. Organic food purchase is also positively influenced by partner´s pressure on organic food purchasing. The higher probabilities of organic food purchase have respondents who trust in organic food certification system. We added into our model also the knowledge of official organic food logos and found that it has positive significant effect on organic food buying.

This analysis of organic food purchase behaviour focused separately on socio-demographic characteristics and on the beliefs about organic food. In the following research, organic food purchase behaviour will be explained by beliefs about organic food controlling for socio-demographic characteristics. Further, we are going to apply the complete theory of planned behaviour on organic food purchasing behaviour.

Conclusions

Based on our results, we suggest that campaigns aimed at motivation of consumers to buy organic food might be more successful if they try to enhance trust in organic food certification system and increase knowledge of official organic food labels. The attention might be also paid to promotion of contribution of organic agriculture to the

protection of the environment. The issue of promotion of health benefits is quite complicated. On the one hand, health-related benefits are perceived more intensively than environmental friendliness of organic food production and promotion of health benefits could have the impact on enhancing organic food consumption. On the other hand, results of nutritional, toxicological, and epidemiological studies (see e.g. Hoefkens et al., 2009) concerning the health benefits of some organic food are not conclusive. Thus, we suggest being rather cautious about claims indicating health benefits, especially about general claims.

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