- DOCTORAL THESIS -

Factors that influence consumer purchasing decision of organic food

ABSTRACT

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INTRODUCTION

The paper studies the consumer’s behavior in general, with a specific focus on the aspects regarding consumer’s decision process of buying organic food.

The purpose of this study is to analyze the factors that influence the consumer in purchasing organic food products.

Research objectives can be summarized as follows:
1. Identifying the factors that influence the buying decision of organic food;
2. Description of the consumption pattern of organic food buyers in Romania;
3. Highlighting the Romanian consumer attitudes towards organic food;
4. Investigating the relationship between demographic variables, consumer attitudes towards organic food, health concerns, environmental concerns and consumer knowledge about organic food and the variable frequency of organic food purchase.

There are two sections in this research. The first one is reflecting the already existing documentation on this topic. The most relevant information has been extracted from the latest studies in this field and used to present the current stage of knowledge on organic food consumer. The main focus is on identifying the specific elements that affect the buying decision of an organic food consumer.

The second part of the paper is an empiric research on the factors that are influencing the frequency of buying organic food of Romanian consumer. The data was collected through online survey, using the structured questionnaire as main tool to evaluate aspects regarding the attitudes towards organic food, the health concern, environmental concern, knowledge about organic food and the link between all these factors and the frequency of buying ecological products.

The paper has 4 chapters including the theoretical directions used in this research, the current stage of knowledge on the chosen subject and my practical approach.

The first chapter presents the market and the organic food consumption at both European and Romanian level. Also, the factors that have contributed to the development of organic food market and organic food consumption are analyzed in this section.

Chapter II combines the main ideas from the most important researches in this field and highlights the current level of knowledge on the organic food consumer. The factors influencing the purchase decision of organic food consumer are also analyzed here.

Chapter III explains the research methodology used in the study applied in Romania – Consumption of ecological food products. How data was collected, the sample size, the questionnaire and data analysis method are all presented in this chapter.

In chapter IV, the research results are analyzed. This section describes the structure of the researched group and the consumption model of organic buyers. The respondents’ attitude towards ecological food is analyzed and the relation between demographic factors and attitude. Variables that influence the frequency of buying are also investigated.

The paper ends with the conclusions – the main ideas gathered from both theoretical and practical research, the managerial implications, research limits and future research directions.
The contributions this paper brings to the organic food literature are multiple: the approached subject, the perspective used in analysis of ecological food consumer, the way in which the factors analyzed (demographic factors, attitude, health concern, environmental concern and knowledge about organic food) is influencing the purchase decision, the research methodology. The conclusions are interesting for both researchers and specialists that are working in this field.

**Keywords**: organic food, organic food consumer, consumption, consumer behavior, factors
1. ORGANIC FOOD CONSUMPTION

The global market of organic food is increasing and it’s often considered to have one of the most significant growths known in the food industry. In Europe, it is estimated that the organic food sales grow by 20% annually (Hughner et al., 2007). The size of organic food market in Europe varies from country to country.

I.1 The market of organic food in Europe

Organic agriculture is carried out in at least 160 countries worldwide (Willer / Kilcher, 2011). The percentage of farmland cultivated in an ecological system reported to total agricultural land and the number of organic farms is constantly increasing in the European Union. The organic products market is growing, not only in Europe and North America but also in many emerging economies.

I.2 The market of organic food in Romania

Romania is an exporter of raw materials, but, although the internal market has known a significant growth every year, the organic food consumption remains at 1% of total sold food. Romanian consumer spends less than one euro per year on organic food. The organic food products are sold primarily through major supermarket networks which commercialize mostly imported products.

I.3 Determinants of organic food consumption

The factors from production sector include a wide range of production and distribution features which could technically influence in multiple ways the consumption of organic food, but in practice, they have an impact only on product availability and the relative prices (Magnusson, 2001, Zanoli and Naspeti, 2002). Thus, it influences the consumer’s opportunity to buy organic food. The factors from the demand sector include beliefs, attitudes and values of consumers (Magnsson, 2001; Thogersen, 2009). These are factors that influence consumer motivation to buy organic food, and factors influencing the consumer's ability to make such purchases: income, habits and knowledge in the organic field (Thogersen, 2005; Thogersen and Olander, 2006).
II. ORGANIC FOOD CONSUMER. CURRENT STAGE OF ORGANIC KNOWLEDGE

This chapter presents the current stage of knowledge on organic food consumer. Also in this chapter there have been identified the factors that influence the decision to purchase organic food to meet the first set objective.

II.1 Methodology

The analysis in this paper is based on 45 studies on organic food consumer behavior and factors influencing the decision to purchase identified from a total of 78 papers initially selected.

II.2 The identity of organic food consumer

Many researchers have tried to identify organic food consumers by analyzing the demographic profile: age, sex, income, presence of children and education. Classifications are numerous and depend on researchers.

II.3 The motivations of organic food consumer

Many studies have shown that the main reason for buying organic products is the concern for health, primarily because they are seen as having better quality and thus be healthier, more nutritious and less affected by pesticides (Aertsens et al., 2009; Hughner et al., 2007, Lea and Worsley, 2008; Magnusson et al., 2003; Padel and Foster, 2005). Other reasons include: environmental protection, animal welfare, quality, origin, taste and food safety.

II.4 Barriers of organic food consumption

The study identifies a number of factors that are negatively influencing organic food purchase. Issues such as the high price, low budgets, limited availability and unappealing appearance of products may be seen as general barrier against organic food consumption.

II.5 Organic food features

From an economical angle, the organically produced foods are goods which have characteristics that cannot be assessed solely by visual inspection or current use. Basically, the attributes of organic products cannot be easily appreciated by the consumer. Thus, several studies have analyzed organic products as goods of trust type.

II.6 Organic versus conventionally produced foods

Several studies have evaluated the differences between organic and conventional foods, both in terms of producers (the offer) and the consumer (the demand). Assessments on the offer sector generally focused on comparisons in terms of crop production, cost, and profitability. By contrast, studies conducted on the demand sector have investigated biophysical and chemical
differences (e.g. nutrients, sensory characteristics, food safety) and consumer preferences and retail prices.

II.7 Knowledge on organic food
The knowledge on organic food has direct and indirect effects on consumer attitudes toward products, as well as its willingness to pay premium prices.

II.8 Attitudes and perceptions of consumers
Consumer attitudes lay within the pleasure or displeasure, i.e. positive or negative orientation towards organic food products or towards the conventional ones. Some authors have argued that consumer preferences for a particular product are based on the attitude he has towards alternatives (Woes et al., 1997).

II.9 Consumer preference for organic food
Consumer preference for organic food is based on general perception that organic products have more desirable qualities than the conventional alternatives. Beyond health, food safety and environmental concerns, a number of features of products such as nutritional value, taste, freshness, appearance, color and other sensory characteristics influence consumer preferences.

II.10 Availability of payment options for organic products
Premium price of an organic product may indicate the superiority of the product in terms of characteristics and quality, so it is something that consumers are seeking.
III. QUANTITATIVE RESEARCH, THE CONSUMPTION OF ORGANIC FOOD

III.1 Methodology
To achieve the assumed objectives we used quantitative research. It is a very effective and useful as it involves obtaining rigorous, accurate and statistically representative data. The advantage of quantitative research is that it’s providing the ability to collect data that accurately describe reality and can provide a basis for generalized models.

III.2 Description of variables
From the scientific papers in this field we extracted the variables that influence consumption of organic food: demographics, attitudes, concern for health, environmental concerns and knowledge about organic food.

III.3 The theoretical model proposed
The theoretical model shows hypothetical links between demographic factors, attitude, concern for health, environmental concerns, knowledge about organic food and the frequency of buying ecological products.

III.4 Assumptions
Research hypotheses are described as follows:
H1: There is an association between demographic factors and consumer attitudes towards organic food;
H2: There is an association between demographic factors and frequency of buying organic food;
H3: There is a positive relationship between consumer attitudes towards organic food and organic food purchasing frequency;
H4: There is a positive relationship between health concern and frequency of buying organic food;
H5: There is a positive relationship between environmental concern and frequency of buying organic food;
H6: There is a positive relationship between the level of knowledge about organic food and organic food purchasing frequency.

III.5 Research design
The research method used was the online survey. The instrument used was the structured questionnaire.
III.6 Sampling
Convenience sample consists of all clients or potential clients (individuals) registered in the database of the company Biosens Srl Romania.

III.7 Questionnaire description
Part 1 is identifying organic food buyers and non-buyers, and their consumer behavior. Part 2 of the questionnaire consists of 20 statements, developed in a previous research (Tsakiridou et al., 2008), which assesses consumer attitudes towards organic food. In Part 3, there are 10 statements that measure health concerns that have been adapted from a research conducted by Kraft and Goodell (1993) and corroborated with statements used in another study (Cheung, 2005). Part 4 of the questionnaire contains 8 statements. These are statements found in the study by Shepherd et al. (2005) and statements used in a research project GREENPRO (2010, Romania), to measure environmental concern. In the 5th part, there are 10 true or false statements to test the knowledge on organic food. These questions were developed based on the information available on the website of the Ministry of Agriculture and Rural Development (www.madr.ro) on organic farming and organic food. Finally, in the 6th part, there has been collected information on demographic characteristics of respondents.

III.8 Data Analysis
SPSS 14 has been used to gather and analyze the data collected and the outputs interpretation was done afterwards. For responses’ interpretation there have been used different methods of data analysis.
IV. RESULTS ANALYSIS

IV.1 Sample structure

From a total of 110 questionnaires applied, we extracted demographic data about the respondents (Appendix 4). To summarize respondent answers, there was extracted the information about each variable from the database.

IV.2 The consumption model of buyers

We can conclude by saying that the majority of respondents declared that in the past, they had spent amounts between 51 and 200 RON on organic food purchase each month. They will spend similar amounts in the future, every month, for purchasing organic food products, most responds confirming they’ll continue to spend between 51 and 200 RON. Most buyers, or 35.5%, said they bought processed products. Organic foods are purchased from supermarkets by most respondents. Most buyers are willing to buy organic food when their price is 25% higher than the price of conventional products.

IV.3 Attitude towards organic food

In general, respondents have a favorable attitude towards organic food (Medium - 3.24) and buyers’ group has a more favorable attitude (Medium - 3.45) than the group of all respondents.

IV.4 Health concern

On health concern, the overall average value is 3.20, which suggests that the respondents have a fair amount of interest on this topic. The item that states “I always avoid eating unhealthy snacks" has the highest average value (3.99) followed by the items “I am concerned there are harmful chemicals in food" (3.65) and, “I always try to have a balanced diet" (3.62), reflecting the increased concern for health, safety and for a balanced diet of the population.

IV.5 Environmental Concern

The overall average value on this topic is 3.40, which indicates a degree of moderate to high environmental concern. We note that most respondents are concerned about saving energy (4.13), but they are not used to donate things they no longer need (2.49).

IV.6 Knowledge about organic food

An overall average score of 4.97 indicates a medium level of knowledge about organic food.
IV.7 Variables that influence purchase frequency

Among the studied demographic characteristics, only the gender aspect has proved to be an important factor influencing the frequency of buying organic food.

Linear regression was used to indicate the link between factors like attitude, concern for health and for the environment, knowledge and buying frequency. Results of the statistical analysis showed that the independent variables attitude, concern for health, environmental concern and knowledge are good predictors for the dependent variable (frequency of buying).

IV.8 Simplified model analysis

The strongest correlations between the dependent variable and independent variables purchasing frequency are: attitude (0.877), health concerns (.872), environmental (.888) and knowledge (.586).
CONCLUSIONS

A few factors contributed significantly to the development of organic food consumption and the corresponding market. These factors are divided into factors related to political aspects and to market factors. Among political aspects, we mention the development of the legislation and the development of a credible system involved in the control, certification and labeling of organic food. The market factors are divided into factors related to supply and factors from the demand field.

From the review the scientific papers in this field we conclude that the main factors influencing the decision to purchase organic food are: demographics, attitudes, concern for health, environmental concerns and knowledge about organic food.

This study provides a preliminary analysis of the proposed theoretical model that defines organic food consumption. Demographic factors as age, education, income and presence of children in the family don’t have a significant influence on buying frequency factor. Only gender factor appears to have a significant influence on consumption, women buying organic food more frequently than men. Variables like attitude, concern for health, environmental concern and knowledge about organic foods have a positive relationship with frequency of purchase.

Results from this study provide information on consumer buying behavior of organic food, which can be used to contribute to the development of marketing strategies for organic food retailers.

Further research should be extended based on this study to determine whether other factors influence the consumers’ decision to purchase organic food.