

## CONSUMPTION DIFFERENCES OF THE ORGANIC PRODUCTS IN VARIOUS MARKET SEGMENTS: LITHUANIAN CASE STUDY

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### Abstract

Article is based on the research results which aimed to assess the differences in consumption of organic products in the various market segments in Lithuania. The literature analysis suggests that the global trends of eco-consumption fundamentally changed over the past two decades. It becomes very important to research on consumer behaviour factors that hamper or reduce the consumption of organic products in different market segments.

Authors have conducted an empirical study survey of 476 respondents in Lithuania searching for the answer, what is the difference of perception of organic products in various market segments. The research analysis has showed that 86% of the respondents have intention to buy organic products, 70% recognized eco-labelling as important factor of recognition of organic products, 51% of respondents most likely to buy the organic products, because their care of family and loved ones health and well-being. The most important buying motives of organic products are products safety (64%), quality, and better taste. The research also showed the different purchasing behaviour of the various market segments: The organic food consumption is mostly spread throughout the middle-aged married women with children, counting on their carrier and high salaries. However, the organic products have great potential in youth and senior segments too.

**Key words:** organic products, eco-labelling, motives, information, perception and attitudes.

**JEL Code:** D12, I30, M39, Q01

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### Introduction

Society development for a long time has been linked with the increasing impact on the environment: intensive use of natural resources and the pollution. In a society dominated by Attitude that only increasing production and consumption guarantees public well-being dominating in our society. (Chrysohoidis et al., 2005). Recently, in the twenty-first century, significant changes are observed not only nationally, but also globally - growing number of people, increasing environmental pollution, depleting non-renewable resources, loss of

biodiversity and valuable ecosystem, increasing poverty, rising consumption. (Huylenbroeck et al., 2009) Therefore, in order to ensure sustainable social and economic development, it is necessary to examine the concept of sustainable consumption and related issues, such as the organic consumer behaviour in the different social groups.

The scientific literature contains various definitions of sustainable development and consumption, done by many authors, Jackson (2005), Asberg, (2011), Beaverson al. (2007), Ham et al. (2011), Tanner ir Kast (2003). The ecological consumer behaviour was investigated by authors, such as: Hutchins, Greenhalgh (1997), Jones et al.(2001), Aarset (2004), Janssen, Jager (2002), Mondelares et al. (2009), Mishra, Sharma (2012), Hanss, Böhm (2012), Mente et al. (2014). Author draws attention to the relationship between the organic consumer behaviour, buying habits and the impact on the environment (Akehurst, 2012). Mainieri et al. (1997), in his research has shown that the customers approach to the environment has a positive impact on the purchase of organic products. (González, 2010). Such an approach to consumer behaviour considerations, the researchers have placed particular emphasis on enhancing consumer values and beliefs and their impact on the eco-friendly consumer behaviour research.

Therefore, purpose of this article is to investigate consumer behaviour factors that hamper or reduce the consumption of organic products in different market segments in Lithuania. Also research focuses on how marketing information can shape consumer attitudes and to promote the benefits for better value perception of organic products. The research problem can be defined: What are the main perception and attitudes differences in consumption organic products for various market segments in Lithuania?

The article is based on literature review and prepared by summarizing the research findings, based on representative empirical study of 476 respondents in Lithuania as well as the authors' insights on the topic.

## **1. Sustainable consumption of organic products**

Sustainable consumption can be understood in two ways: on the one hand - it 's needs satisfying process, and on the other - that contributes to the formation of consumers personality, social status , cultural identity and etc. "(Hamm. 2011). Council for Sustainable Development in 1995, formally adopted a currently valid definition of sustainable consumption - is the use of products and services conforming to the basic needs and providing a better quality of life for the nearly natural resources and hazardous materials, minimizing

waste and emissions throughout the life cycle to avoid compromising the needs of future generations (Beaverson, 2007). Tanner and Kast (2003) improved the definition of sustainable consumption, saying that – its organic products purchasing process, reared or produced within the country, organic, seasonal and fresh, less packed and with a fair trade label. Defining organic product according Jones et al. (2001), Jensen and Jager (2002), organic products - is a high -quality products, produced with minimal negative environmental impact. The others definitions were set by Mondelares et al. (2009) Skulskis, Girgždienė (2009) and Mishra, Sharma (2012) that emphasizes that it is certified organic products are products that meet stringent environmental standards of production and trade .

### 1.1. Organic products consumer profile and market segmentation

Many authors, such as Mente et al (2014), Suki (2013) and others give the overview of organic products consumer profile. Organic products consumers are those, who are not buying products that may pose a health risk or significant damage to the environment issues. D' Souza et al. (2006), describes the organic products consumers as environmentally friendly individuals who are not only going to meet their personal needs, but also concerned about the social and environmental well-being. Gonzalez et al. (2012) gives definition of eco- conscious consumers, who seek to consume only those products that have the least or no impact on the environment. Eco- friendly consumers avoid buying products that are perceived as risky to health, production time / use / disposal harms the environment, uses a lot of energy, have a great packaging and ingredients that affect endangered species and jobs.

Oliver ir Rosen (2010) organic food consumers are segmenting to four groups according two factors: self-efficacy and environmental dignity (value) (see Tab.1) .

**Tab. 1: Organic products consumer segmentation**

	<b>High environmental dignity</b>	<b>Low environmental dignity</b>
<b>High self-efficacy</b>	Active green	Potential green
<b>Low self-efficacy</b>	Invisible green	Non-green

Source: Tuten, 2013, p. 504

1) **Non-green consumers** are the least likely to use organic products. They don't care For them if products have a negative impact to the environment. They are not looking for information on environmentally friendly products, but their consumption decisions influenced by advertising and price. (Vranken, 2013)

2) **Active green consumers** are the main target market group. They buy organic products and pay attention to advertising, but their consumption decisions are not affected by adds.

3) *Invisible green consumers* care about the environment, but they do not feel the need to protect it. These consumers are sceptical about green products and it is difficult to convince them. They care about the environment, but do not feel that their actions can change anything.

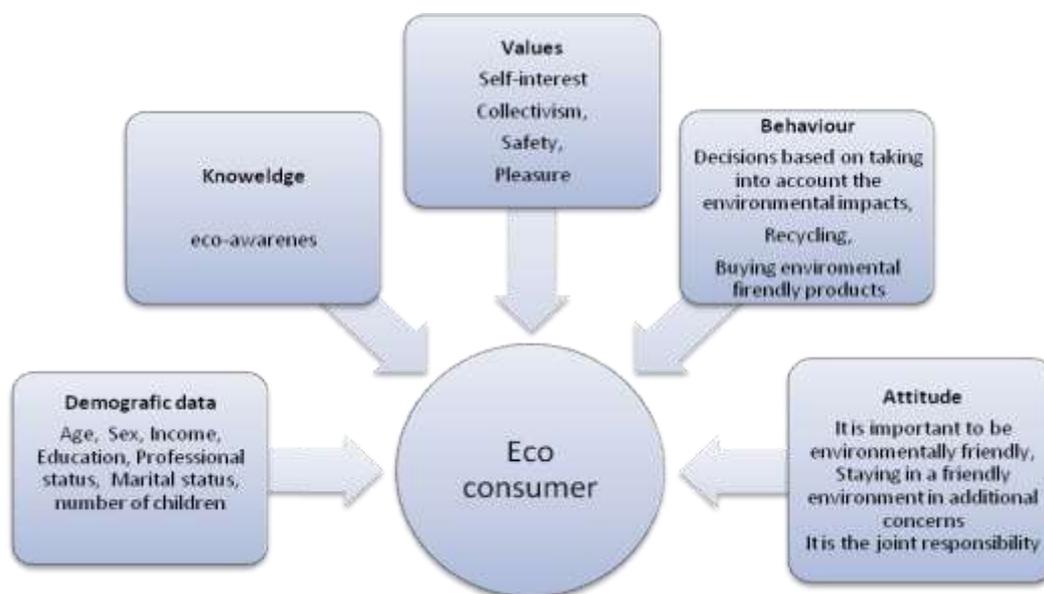
4) *Potential green consumers* do not care about the environment, but do not feel the need to change. These consumers decision-making process is influenced by the group opinion. They think that they can change, but do not feel that it is very important for them to sacrifice.

Research studies have showed that green consumers are willing to change their consumption habits to save the environment (D'souza, 2004). It was proved in Chrysohoidis et al. (2005) study, which revealed that the consumption of organic products in particular, is associated with the user's chosen way of life.

## 1.2. Organic products customer behaviour influencing factors

Lorence et al. (2011) identified the factors that influence consumer behaviour (see Figure 1), and based on the scientist's words, organic consumers are most likely to not only buy organic products, but also agree to pay a higher price.

**Fig. 1: Factors influencing eco consumer behaviour**



Source: Lorence et al., 2001, p. 504

By examining the organic products consumer behaviour, many factors have impact on their buying patterns (see Fig.1). The main factors are named, such as: socio-demographic, psychographic and geographic. Typically, the eco-conscious user's profile containing socio-demographic variables such as: gender, age and education affect attitudes towards the

environment and its problems. The general pattern is observed by the researches that women are more likely to buy organic products, as well as younger people are likely to be more sensitive to the environmental issues, because those users have grown up in the period when the fundamental issue related to the environment (Gonçalves, 2012). In addition, the customers with higher levels of education are more interested and aware in environmental issues and try to change their habits (Sundqvist, 2009). However, in the last two decades, research has shown that the eco-conscious consumer is older than average. (Yusuf , 2012) . Thogersen and al. (2011), found that children in the family plays an important role in making a positive impact on the purchase of organic products , although more attention must be given to the child's age as a factor in buying organic . In addition, the consumers, who live an active social life and being aware of environmental issues, become more responsible for themselves. (Jansen, 2013, Lucie, 2008). Balderjahn (1988) have found also, that individuals who had a positive attitude towards the environmental issues, are more involved in the procurement and consumption of organic products. In general, according to Lennernas and others (1997) factors that influence organic products consumer behaviours are age, sex, education, young children in the family, incomes and attitudes toward environmental issues.

By examining the internal factors of green consumer behaviour, it is worth to mention the study of Mainieri et al. (1997), which revealed that *the personal benefits* of green consumption and the *green attitudes* has a positive impact on the purchase of organic products. Green consumer buying motivation is chiefly through the interest in obtaining personal benefits (health, feelings), less altruistic over (benefit to society, rather than a person). Hamm (2011) study revealed that the main reasons why consumers are buy organic food because they are healthier, better quality compared with the conventional food.. The majority (93%) say that they are buying for "health reasons" and / or because it is „better for kids". Less than (30%) confess that "it's better for the environment". (Hamm, 2011)

The other reason to buy organic products is *confidence*, for example Health and better taste. (Janssen, 2012) . However, according to Thogersen (2011) study in 4 different countries (Denmark, the UK, Germany, Italy), consumer confidence for organic food is different. Consumers who buy organic products are more favourable in the output characteristics (better taste, more attractive, more natural) than non-buyers. In general, Hamzaoui (2009), Thogersen (2011), González (2012) and others mentioned the main reasons for purchasing organic products that are environmental protection and health, product quality that is nutritional value , taste, freshness , and cost.

Another important reason to purchase is *knowledge* (Blavirson, 2007). Thoroughly analyzing the organic buying habits the ambivalent situation is observed: the consumer awareness about the environment and commitment to live responsibly, protecting the environment does not mean that they will buy organic products. (Ward, 2009) Consumers who buy organic products are willing to pay more than the price of conventional product. This means that users desire to take care of the environment can occur in two different ways: distrust in organic products or the willingness to pay more for products protecting the environment. Zinkhan and Carlson (1995) identified three main challenges for eco-friendly awareness building- misleading advertising, the lack of information in assessing the environmental requirements and the negative attitude of consumers to businesses. (D'souza, 2004).

## **2. Empirical research methodology**

Representative survey was conducted in Lithuania, during 1-14 April, 2014. There were questioned 476 residents of Lithuania, who were randomly selected. The questionnaire was made from 17 questions mostly measured by a five-point Likert scale.

The aim of empirical study is to reveal consumer behaviour factors that hamper or reduce the consumption of organic products in different market segments in Lithuania. The three hypotheses, based on aim of the research, was formulated:

Hypothesis H1: Consumers are more likely to use organic products if they meet their personal interests;

Hypothesis H2: Marketing information has a positive impact on the eco-awareness and product selection.

Hypothesis H3: Consumer perceptions of the environment as the main reasons for the use of organic products in different age groups vary.

To analyse statistical data, Spearman's  $r$  correlation coefficient and dispersion analysis one-way ANOVA method was conducted. The hypothesis testing was made according observed significance level ( $p$ -level $<0,05$  rule).

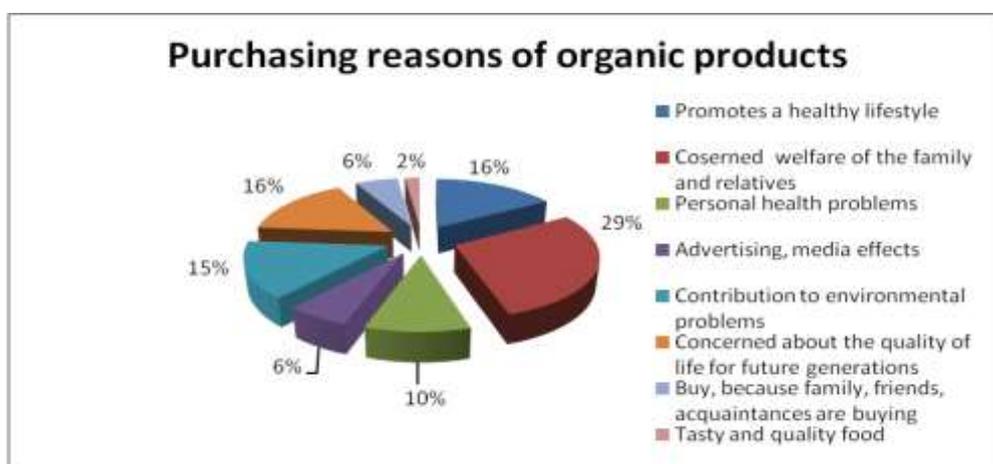
## **3. Empirical research results**

Representative empirical study included 476 respondents all ages, gender, education and income residents of Lithuania. The study included 58.4% women and 41.6% men. Respondents' average age is 33 years. 54% respondents have a university education. Most

respondents (64.9%) have average monthly income up to 2,000Lt. The research analysis has showed that 86% of the respondents have intention to buy organic products in Lithuania. The identification of main consumer attitudes suggested that 51% of respondents most likely to buy the organic products, because their care of family and loved ones health and well-being. The most part respondents (70%) recognized eco-labelling as important recognition factor of organic products. It was found that buying motives of organic products are products safety (64%), quality, and better taste. The limiting factors emerged to the lack of information (49%) and expensive price (48 %).

To analyze the purchasing behaviour of consumers were asked the question about the main organic product purchase the causes. (H1 hypothesis testing).

**Fig. 1: Purchasing reasons of organic products**



Source: Created by authors.

Analyzing Fig1. data, we came to facts that the major cause of purchasing the organic products is taking care of family and loved ones (29%), the other reasons: to promote a healthy lifestyle (16%), to take care about quality of life for future generations (16%) ,to contribute to environmental problems (15%), to solve personal health problems (10%). Other factors account for 14%. It might be concluded, that H1 has to be accepted, claiming that persons using organic products Lithuania relates more to personal benefits than to environmental problems.

In order to verify the second hypothesis, the verification of the marketing information impacts consumer attitudes and buying preferences.

**Tab. 2: Impact of marketing information on purchasing the organic products**

	How often do you buy organic products?	
	Spearman's rho	p-level
Label "Made in Lithuania"	-0,300	0,515
Eco-labelling/ branding "Environmentally friendly"	0,566	0,000
Green Marketing campaign	0,254	0,000
Reputation of manufacturer	0,128	0,065
General appearance (green, green title)	0,344	0,020

Correlation analysis has (Tab.1) has showed the biggest influence on consumer purchasing decision in Lithuania has the eco-labelling "Environmentally friendly" of the products. Correlation analysis showed a relatively strong positive relationship ( $r = 0.566$ ,  $p\text{-level} = 0.000$ ). In other cases, link between "Made in Lithuania", the company's reputation - was not observed, in other cases was weak correlation. In conclusion: The hypothesis about marketing information is supported by only one case out of the five, so it's not obvious that the whole marketing information has a positive impact on the eco- awareness and choice of products (except eco-labelling). H2 hypothesis has to be rejected.

To understand organic products consumer behaviour differences according their internal attitudes and values, the following statements were formulated. ( Tab.3 )

**Tab. 3: Statements related to consumer beliefs and attitudes to the environment**

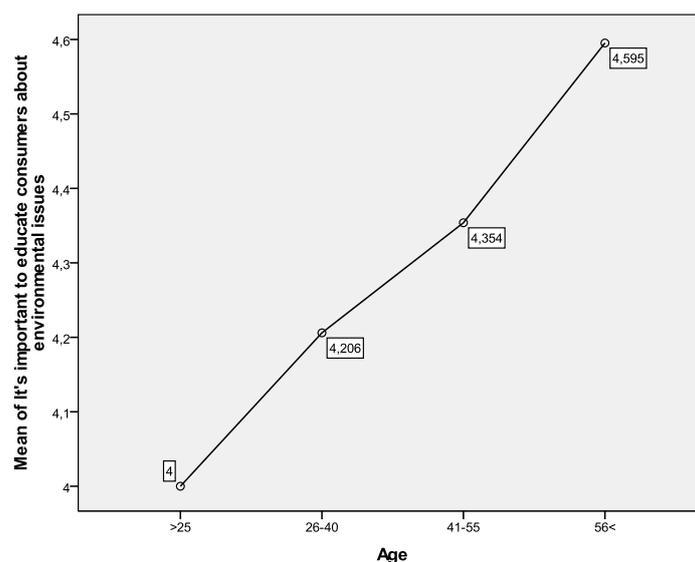
A1	It is important to educate consumers about environmental issues
A2	Increased eco-consumption improves quality of life
A3	Recycling saves natural resources / energy.
A4	Greens fees contribute to the preservation of the environment.
A5	My habits contribute to environmental pollution and waste increases.
A6	Organic products consumption reduces the negative impact on the environment.
A7	On balance eco-friendly products - cheaper than usual.
A8	Consumers of organic products have an impact on producers.
A9	Setting up specialized cooperatives (producer groups) to encourage local production.

Source: created by authors

All respondents in the study were divided into three groups ( Active Green , Potential green Potential and undecided ) according to the statements: A1. "It is important to educate consumers about environmental issues" and A2 . Increased eco-consumption improves quality of life". It was distinguished 273 (57.3%) Active Green , 132 (27.8 %), Potential Green and 71(14.9%) undecided. Respondents revealed the differences in the most age groups, following the spearman correlation analysis. It was also identified four generations of consumers: young users (>25). Middle-aged (26 -40 years) and older ( over 41 years ).

Dispersive analysis method one-way ANOVA was applied to find out the differences between generations of consumers according to their beliefs and attitudes. The method of the null

hypothesis states that all the allegations of times respondents equally, ie  $H_0 : \mu_1 = \mu_2 = \dots = \mu_k$ . Here  $\mu$  – average value. Since the Levene test of homogeneity of variances did not show the differences in the variances, for the further examination F-test has been selected. This test confirmed the differences among the age groups in their eco attitudes and beliefs ( $F = 3.205$ ,  $df = 3$ ,  $p = 0.023 < 0.05$ ), Furthermore, there is a statistically significant differences in these age groups:  $> 25$ ,  $41-55$ .  $56 <$  age groups means are different).



Source: created by the authors.

Assessing the statement A2, "Increased consumption improves quality of life, the key differences were not observed in various age groups ( $F = 1,671$ ,  $p = 0,172$ -level  $<0.05$ ). It is therefore possible to measure the consumption of organic products increases the quality of life in all age groups. To conclude, the hypothesis H3 has to be accepted, because according to consumer environmental attitudes, there are the differences in various age groups. Thus, taking into account that environment attitudes have impact on organic products purchasing (Hamm, 2011) it can be said that the active greens consumers (that are younger people in Lithuania), has potential to grow, attracting more middle-aged and elderly people (that are eco-conscious, but still not buying green products because of prices and sceptical attitudes in general. .

## Conclusion

The organic products market is still in embryonic phase in Lithuania. Development of this market is limited by the problematic consumer behaviour patterns and insufficient studies and

researches made in this field. It is essential to carry out the motivation and behavioural research to find out the reasons and the behaviour differences of organic product customers.

The authors has conducted an representative empirical study in Lithuania (n=476), searching for the answer, what is the difference of perception of ecological products in various market segments and what are the main motives of ecologic products consumption. The research analysis has showed that 86% of the respondents have intention to buy organic products, because their personal needs (care of family and loved ones health and well-being (51%)). The majority of respondents (70%) recognized eco-labelling as important recognition factor of organic products. It was found that buying motives of organic products are products safety (64%), quality, and better taste. The limiting factors emerged to the lack of information (49%) and expensive price (48 %). The research also showed the different purchasing behaviour of the various market segments: The organic food consumption is mostly spread throughout the young married women with children, counting on their carrier and high salaries. However, the organic products have great potential in middle and senior segments too.

Thus, the empirical research showed the great demand of organic food in Lithuania, therefore by expanding the organic market and it is important to emphasise by promoting eco-friendly products (by widely introducing eco-labelling), also to use consumer eco-education , in order to shape consumer attitudes and value perception of organic products that has the direct impact on organic purchase behaviour.

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