



Original article

Consumer willingness to pay a price premium for ecological goods: a case study from Ukraine

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ABSTRACT

The aim of this paper was to define and analyze local consumers' willingness to pay a price premium for ecological goods in the regions of Ukraine (on the example of the residents of Kharkiv and Kyiv). For this purpose, different methods were used in the research: surveys; abstract-logical; induction and deduction; monographic; comparative analysis; graphic. The scientific value was provided by the theoretical development and methodological principles of assessing the willingness of consumers to pay a price premium for ecological goods in the regions of Ukraine. These have become the scientific basis for assessing the future development of this segment of the market, since more than half of consumers are ready to buy ecological products, even more expensive than ordinary ones, but there is a certain limit for the price premium. It was revealed that the potential for market development is the greatest, provided that the price premium for the environmental properties of the goods is not more than 25%. Accordingly, the higher the price premium on ecological goods, the less consumers are willing to buy them. The comparison of consumers' attitudes from different regions (examples from the residents of Kharkiv and Kyiv) on ecological goods and their willingness to pay a price premium for them showed that one of the key factors is the level of the purchasing power of the population. The obtained results of the research can be used to assess the prospects for the development of the market in ecological goods, to develop a set of measures to increase the level of readiness of domestic consumers to pay a price premium for ecological products and the adoption of managerial and marketing decisions in the relevant segment of the market.

KEY WORDS: consumers' willingness to pay, price premium, ecological goods, ecological economics, Ukraine

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1. Introduction

There is a need to overcome the contradictions between economic growth and the preservation and improvement of the quality of the environment. One of the ways of resolving these contradictions may be the intensification of the development of the market for ecological goods. To formulate a proposal about this market, it is important to determine the consumers' attitude to ecological products and to determine their willingness to

pay a higher price for it. Diagnosis of consumers' willingness to pay a premium price for environmentally friendly goods is one of the prerequisites for justifying the feasibility of producing eco-friendly products. In modern conditions, the situation in the ecological goods market is changing, consumer demand and ecological consciousness are transformed, socio-ecological and economic changes have taken place, which collectively forms the preconditions for the research and indicates the relevance and scientific significance.

The results of the analysis of recent studies and publications show that different terms are used synonymously in the literature, in particular: «ecological», «green», «sustainable», «organic», «environmentally friendly», «eco-friendly» product. We use the term «ecological goods», which follows Iliashenko's understanding of economically efficient and environmentally safe goods that allows us to resolve the contradiction between economic growth and the guarantee of environmental security, thus creating the prerequisites for the sustainable development of the domestic economy along the lines of the concept of innovative advancement (ILLIASHENKO, 2013). In economic science usually ecological products are considered, which in the course of their life cycle meet the requirements of environmental business and satisfy the ecological needs of consumers.

In the world, during the last decade, many investigations have been conducted to study the willingness of consumers to pay a price premium for various ecological products. Thus, according to a global survey by company Nielsen, over 30 thousand consumers in 60 countries in 2015, 66% of respondents were willing to pay more for ecological products, an increase of 11% compared to 2014 and a 16% increase over the same indicator in 2013. The Millennial Generation most of all are ready to pay extra – almost 73% of respondents. The ecological susceptibility has the ability to influence the purchase of an ecological product for 45% of consumers surveyed (THE SUSTAINABILITY, 2015; 66% OF CONSUMERS...).

The willingness of US consumers to pay a price premium for ecological («green») products is growing, albeit slowly. Thus, according to a recent study by Growth from Knowledge 25 thousand consumers, found that 56% stated their willingness to pay more for ecological products in 2017, which is 3% more than in 2010. Almost half of respondents (49%) are now «some» or «basically» agree that they are ready to give up convenience in exchange for environmentally safe products, which is 3% more. About 49% (somewhat or mostly) agree that the company's environmental image is important to them when making purchasing decisions, but only 1% more than in 2010 (CONSUMER WILLINGNESS...).

The results of the study by Biswas indicate a predominance of consumers perceiving the functional aspects of «green» products in the context of their readiness to pay for them (BISWAS, 2016). Many consumers claim they are ready to pay a small premium for ecological products, but their willingness to pay is reduced when the premium increases. A survey of 1,000 consumers in Europe and the United States

showed that more than 70 % of the surveyed buyers, would pay an additional 5% for a green product, including cars, building materials, electronics, furniture, if it meets the same performance standards as the alternative non-green product. However, less than 10% of these consumers said they would choose «green» products if the premium increased to 25% (MIREMADI ET AL., 2012).

In an interview of 84 students from the University of California, San Diego, Hsu and Starr concluded that: 1) consumers were willing to pay very low premium (an additional 1–5%) for environmentally friendly products compared to less environmentally friendly options; 2) consumers had a higher readiness to pay for environmentally friendly, low-cost goods, compared to environmentally friendly expensive goods (HSU & STARR, 2016).

In the present era there is concern about the environmental downturn, reduction of environmental impact and sustainable development and this has become the object of research among academics, practitioners and even industrial entities (BISWAS, 2016; REX & BAUMANN, 2007; LIU ET AL., 2010; RUJEN ET AL., 2014; MUPOSHI & DHURUP, 2017).

Foreign scientists also study: the willingness of American households to pay a price premium for the use of «green» information and communication technologies (MILOVANTSEVA, 2016); willingness of Korean consumers to pay a price premium for eco-labeled LED TVs (MIN ET AL., 2017); willingness to pay for «green» products in the context of the system of environmental values (LESZCZYNSKA, 2014); willingness to pay for improved water supply (AKEJU ET AL., 2018); consumers' willingness to pay a price premium for ecological food goods, including bread, finding that consumers are willing to pay over 50% more for such items (BADU-GYAN & OWUSU, 2017); as well as organic fruits and vegetables (OWUSU & OWUSU, 2013); it is also established that most Spanish consumers are willing to pay a higher price for organic wines (SELLERS, 2016). However, the consumers' willingness to pay a price premium for ecological goods in the developing countries of Eastern Europe, in particular in Ukraine, has not been adequately studied.

In the world, the most dynamic market for ecological products is developing in China, where the annual growth rate reaches 30%; the growth rate of the environmental market in the Baltic States – up to 8% per year, in Canada – up to 10%. In western countries, on average, ecological goods and services make up to 10 % of the family budget, the demand for them is increasing (GAVRILKO, 2012).

According to consumer research established, that their perceptions for a product, attitude, knowledge about the product and its manufacturer and

various contextual factors play a dominant role in their decision making process (BISWAS, 2016). The "willingness-to-pay" denotes the maximum price that a consumer is willing to pay for a particular product, and this plays a decisive role in their choice behaviour (LI & MESHKOVA, 2013).

In Europe, ecological products are bought mostly in hyper- and supermarkets, and in Ukraine, trading networks such as supermarkets, discounters, and small shops dominate. If sales of ecological goods in Central Europe have stabilized with a slight upward trend, the countries of Eastern Europe show substantial growth. One of the determinants of this trend is the premium mark-up, ranging from +30% to the price of traditional products and the export orientation of organic products (LEBID, 2018).

In Ukraine, the study of the consumers' willingness to pay a price premium for ecological goods of various types was initiated and conducted by scientists from the Scientific School in Sumy, in particular: Prokopenko (PROKOPENKO & ALEKSEIENKO, 2006; PROKOPENKO, 2008), Iliashenko (ILLIASHENKO, 2012, 2013; ILLIASHENKO ET AL., 2012; ILLIASHENKO & ILLIASHENKO, 2012), Kuchmiyov (KUCHMIYOV, 2012) and others. For example, Prokopenko and Alekseienco found, that the majority of the respondents in Sumy city were ready to purchase ecological products that do not harm their health and were not prepared to pay for goods, production, use and disposal (utilization) of which does not have ecological harmful effects on the environment (PROKOPENKO & ALEKSEIENKO, 2006). Ilyashenko's work with co-authors found that the proportion of respondents in Sumy who were definitely prepared to pay a price premium for ecological food products (for all social categories – men and women) was much higher than the proportion of those who chose other answer options (ILLIASHENKO, 2012, 2013; ILLIASHENKO ET AL., 2012). A significant part of consumers is in a high state of willingness and were ready to purchase ecological products even at an elevated price (ILLIASHENKO, 2012), even if the price increase does not exceed the limits allowed by consumers, which takes into account their income level (ILLIASHENKO & ILLIASHENKO, 2012). In an article by Kuchmiyov, the segmentation of end consumers was conducted taking into account the environmental factor and identified the following segments: «greening», «caring», «ripening», «saving», «gray», «indifferent». It was determined that consumers were willing to pay (on average) an additional premium for improved environmental properties of goods at a rate of 9.9% (KUCHMIYOV, 2012). It should be noted that the results obtained characterize the consumer's attitude towards the environmental characteristics of different types

of products only in the town of Sumy, in other territories it may be different. Additional research is needed to understand the whole picture that characterizes consumer readiness in relation to ecological products at country level in Ukraine. Studies should be aimed at reaching all regions of Ukraine, and should differentiate the differences of consumer willingness in relation to ecological goods of different types and determine the most appropriate ranges for price supplements (ILLIASHENKO, 2013).

The purpose of this article is to define and analyze the consumers' willingness, in different regions, to pay a price premium for ecological goods in Ukraine (using the example of residents from Kharkiv and Kyiv).

Aims of the research: (i) to analyze the results of studies on the consumer willingness to pay a price premium for ecological goods; (ii) to conduct a survey of consumer willingness to pay a higher price for ecological products in comparison with the price of traditional goods; (iii) to investigate the main factors that influence the consumers' willingness to pay a price premium for ecological goods; (iv) to compare the attitude of consumers of different regions for ecological products and their willingness to pay a price premium with the inhabitants of Kharkiv and Kyiv.

The study area, Kharkiv and Kyiv, is one of the largest cities in Ukraine; Kharkiv is located in the east part of Ukraine; Kyiv is located in the north central part of the country (Fig. 1).

2. Materials and methods

In order to implement the research aims, the authors used different methods in the research: questionnaire surveys (for gathering primary verbal information using the developed questionnaire); abstract-logical (for systematization of the available material); induction and deduction (for generalizations and formulation of conclusions); monographic (during in-depth study of the analyzed problem); comparative analysis (for comparing the consumers' willingness to pay a price premium for ecological goods in different regions); graphical analysis (for specifying empirical data); regression analysis (to assess the impact of socio-demographic factors on the consumers' willingness to pay a price premium for ecological goods).

The research investigated the determining (by the survey method) and analysis of the readiness of Ukrainian consumers from different regions (the residents of Kharkiv and Kyiv) to pay a premium for ecological goods. The total number of respondents was 60. The study was completed in three stages.

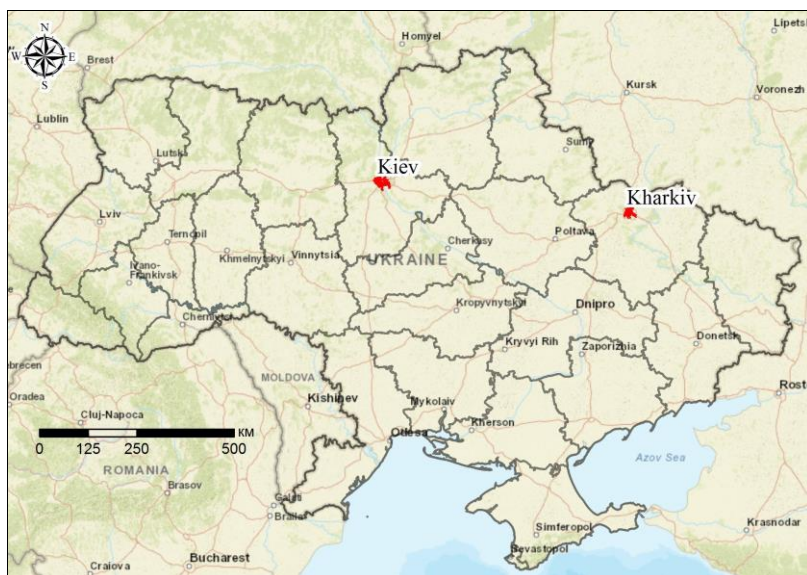


Fig. 1. Map of Ukraine showing the boundary of the study area (source: author's own compilation)

The first stage. A pilot study was carried out through a survey of 20 people in Kharkiv (men 45%, women – 55%). The majority of respondents (45%) correspond to the age category – up to 30 years; other categories were distributed equally – by 20%, respectively, persons from 31 to 40 years and from 41 to 50 years, 15% – more than 50 years. The overwhelming majority of respondents have a secondary education – 60%; Higher education is available in 30% of respondents; 10% of people have a general secondary education. The social status of the respondents is as follows: the worker – 35%, employee – 5%, entrepreneur – 10%, unemployed – 25%, student – 20%, pensioner – 5%.

It has been established that 50% of respondents support the concept of sustainable development, 15% do not support it and 35% found it difficult to answer this question 35%. The majority of respondents under 30 (67%) supported the concept of sustainable development. It was difficult for all respondents from 31 to 40 years to answer whether they supported this concept. The majority of respondents from 41 to 50 years old (75%) supported this concept; in the category for over 50 years the answers were distributed equally: 5% supported, 5% – no, 5% – difficult to answer. 35% of the interviewed respondents when purchasing goods attention is drawn for the presence of environmental signs (environmental labeling); do not pay attention – 15%; sometimes pay attention 35%; 15% of people do not understand what environmental labeling is. 50% of respondents are willing to pay a price premium for ecological goods (of which 70% are women, 30% are men); under certain conditions, 35% of people are ready to pay a price premium (57% of women, 43% are

men); it is difficult to determine 15% of the respondents (all men). None of the respondents expressed a categorical refusal to pay a premium. 20% of respondents refuse to purchase ecological products due to lack of funds; due to personal preferences and tastes do not choose ecological products 35% of respondents; it is not enough time to find such products 55% of the respondents. In the presence of a European marking, 20% of respondents prefer to buy ecological products with a price premium; on the advice or recommendation of relatives, friends and acquaintances – 55%; in the presence of additional benefits (promotional scores, lottery, etc.) – 25% of the respondents. Consequently, the majority of respondents will prefer buying more expensive ecological products on advice, the other part has not yet been determined, does not have enough information to make a decision.

The second stage, 40 people from Kharkiv and Kyiv were interviewed. An anonymous questionnaire was submitted to respondents, containing 16 questions. Among the suggested questions were alternatives, which included two answers, as well as a selective answer – for such questions respondents were able to choose several options. An example of the questionnaire is given in [KUCHER ET AL. \(2018\)](#). The following criteria were chosen for segmentation: age, gender, education and social status of respondents.

The number of respondents in Kharkiv was 20. The largest share in the field of activity among the respondents is made up of workers – 55%, students – 30%. Also among the respondents: 5% – pensioners, 5% – unemployed and 5% – entrepreneurs.

The overwhelming majority of respondents are women (65%), this is due to the desire of women to lead a healthy lifestyle, to take care of family health. Men's share of respondents is much smaller – 35%. The age of most respondents in Kharkiv: under the age of 30 – 75%; from 31 to 40 years – 5%; from 41 to 50 years – 15%; over 50 years – 5%. 75% of the respondents from Kharkiv have full higher education, 10% – secondary special and 15% – incomplete higher education.

The number of respondents in Kyiv also has 20 people. The majority of respondents in the field of activity are employees – 50%, and students – 35%. Also, there are unemployed – 10%, and entrepreneurs – 5%. The largest share of respondents, as well as in Kharkiv, is women – 85%, respectively, the share of men is 15%. The age of most respondents in Kyiv: under the age of 30 – 80%; from 31 to 40 years – 20%. 60% of Kyiv residents have complete higher education, 15% – secondary special and 25% – incomplete higher education.

In the third stage of the study, we evaluated the impact of the main socio-demographic factors on consumers' willingness to pay a price premium for ecological goods. To do this, we conducted a multifactor correlation analysis and regression modeling. The variables included in the model are presented as follows:

- Y – The willingness of respondents to pay for ecological goods more than conventional products, %;
- X₁ – Gender of respondent (female = 1, male = 2);
- X₂ – Age of respondent in years (under the age of 30 = 1, from 31 to 40 = 2, from 41 to 50 = 3, more than 50 = 4);
- X₃ – Education of respondent (general secondary education = 1, secondary special education = 2, uncompleted higher education = 3, higher education = 4, Ph.D. = 5);
- X₄ – Social status of respondent (unemployed = 0, student = 1, pensioner = 2, worker = 3, employee = 4, entrepreneur = 5).

3. Results and discussion

The results of the survey of Kharkiv residents on whether they are satisfied with the quality of the purchasing goods give grounds to state that 75% of consumers consider it low. As for the inhabitants of Kyiv, the number of respondents who are dissatisfied with the quality of goods is somewhat smaller and is 55% (Fig. 2). This may indicate that the consumer goods market in Kyiv is more developed, which allows choosing more quality products.

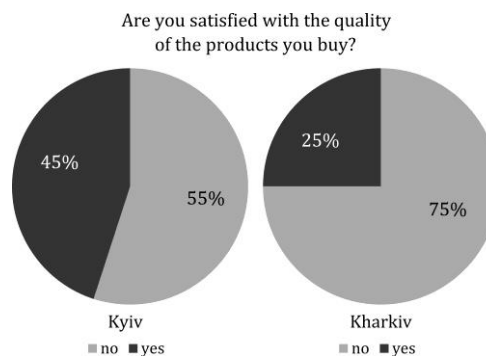


Fig. 2. Level of satisfaction of respondents with quality of consumer goods (Source: author's research)

For the question «When you make a purchase, do you choose ecological products?» 60% of respondents in Kharkiv gave a positive answer. Of the residents of Kyiv 70% of respondents also prefer ecological products (Fig. 3).



Fig. 3. The willingness of respondents to choose ecological products (Source: author's research)

The main factors that contribute to the emergence of a demand for ecological goods should include the following:

- awareness of the fact that the ecological situation in the country is almost critical;
- deterioration of the health of the population, especially due to diseases of the gastrointestinal tract, cancerous formations, allergies, etc.;
- an increase in the public's concern about cases of mass poisoning by low-quality products;
- an increase in the role of the media in informing consumers about the quality of food products.

One can assume that consumers are interested not so much in the most ecological product or service, but in the ability to solve certain problems with the help of the purchased goods.

Answers to the question «What product do you consider ecological?» indicate that consumers do not equally perceive the environmental properties of different products (Fig. 4). The results of the study show that, according to the consumers of Kharkiv and Kyiv, the product is ecological:

- the one that I bought in the village (15% and 10% respectively);
- the one that I cultivated myself (40% and 10% respectively);
- the one with special markings on the package and the certificate number (90% and 80% respectively);
- the one with green leaves, and inscriptions (Bio, Organic, Eco) (90% and 90% respectively);
- any good product (without preservatives, GMO, etc.) (70% and 70% respectively).

Despite the fact that most consumers are concerned about the quality of products and the fact that this problem can negatively affect their health, most of them are still not ecologically informed. The fact that many of the respondents do not possess information about the labeling, which is used to designate ecological products, also testifies to the lack of awareness about the environmental quality of the products. Survey results show that manufacturers must not only convince the consumer that the product has certain environmental properties, but the also should inform the consumer how to distinguish an environmental product from its counterparts.

Concerning the motives for buying environmentally safe (organic) products, they are similar in both Kharkiv and Kyiv (Fig. 5). When we asked «Indicate the reasons why you

prefer ecological products» the most popular answer was that it is good for their health.

Research on the motives for choosing ecological products showed that:

- 90% of the respondents from Kharkiv and 80% from Kyiv are satisfied with the high quality of ecological goods;
- 100% of the interviewed consumers from Kharkiv and 100% of those from Kyiv are worried about their health;
- 65% of consumers surveyed in Kharkiv and 75% of in Kyiv are buying ecological products because they are safe for the environment;
- 25% of the respondents from Kharkiv and 40% from Kyiv believe that buying ecological products is fashionable.

The analysis of the answers to the question «What do you pay attention to when choosing ecological products?» (Fig. 6) shows that potential consumers most often rate product parameters such as taste, composition, availability of certification marks and price.

According to respondents, an ecological product should have the same taste and functional characteristics as the alternative one. In addition, for Kharkiv and Kyiv citizens, the price is one of the decisive factors that determine the success of the product on the market. One can assume that a high price hinders the promotion of ecological products.

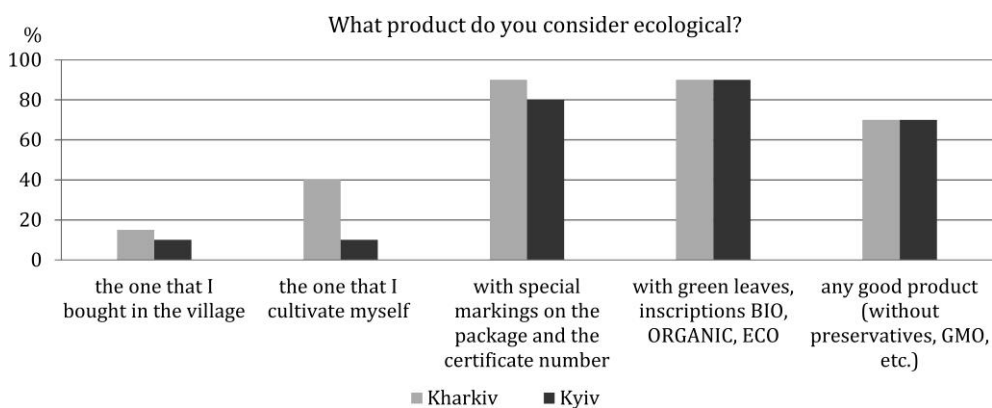


Fig. 4. Signs of ecological goods (according to respondents) (Source: author's research)

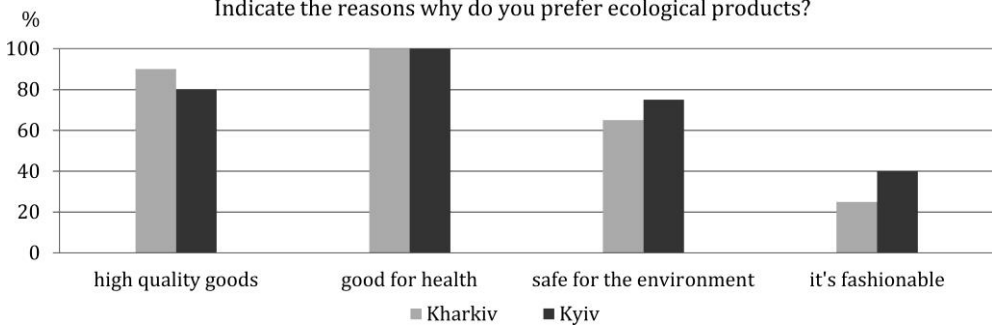


Fig. 5. Motives for choosing ecological products (Source: author's research)

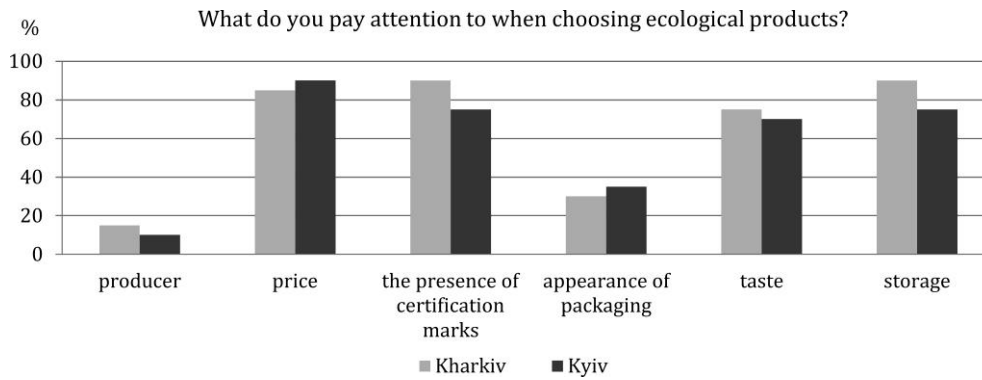


Fig. 6. Important characteristics for buying an ecological product (Source: author's research)

Survey results (Fig. 7) show that consumers usually buy ecological goods in hypermarkets and supermarkets. This is probably due to the high consumer confidence, as large stores make a lot of effort to shape the positive image of their trading networks. In addition, such distributors have a large advertising budget.

Although in Ukraine, the number of Internet users increases every year, not all buyers are ready to make purchases on the Internet, especially if they relate to food.

Ecological goods are available for purchase in markets for only 5% of Kharkiv citizens, while none of the Kyiv citizens chose this option. The reason

for this choice may be that at the markets in Ukraine ecologically safe products are sold extremely rarely. Currently there is no practice of trading certified organic agricultural products in Ukrainian markets, as opposed to supermarkets. In addition, this variant of the answer in Kharkiv a pensioner has chosen, for whom the market is a relatively cheap and easy way to buy products.

Results of the analysis of respondents' answers to the question «What kind of ecological products do you use?» (Fig. 8) indicate that the most popular answer is «food», for 85% of Kharkiv residents and for 90% of Kyiv residents.

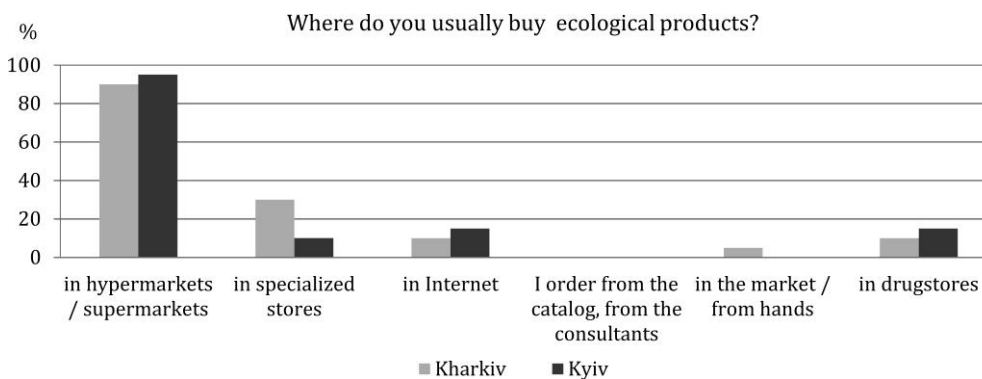


Fig. 7. Preferred place to purchase ecological goods (Source: author's research)

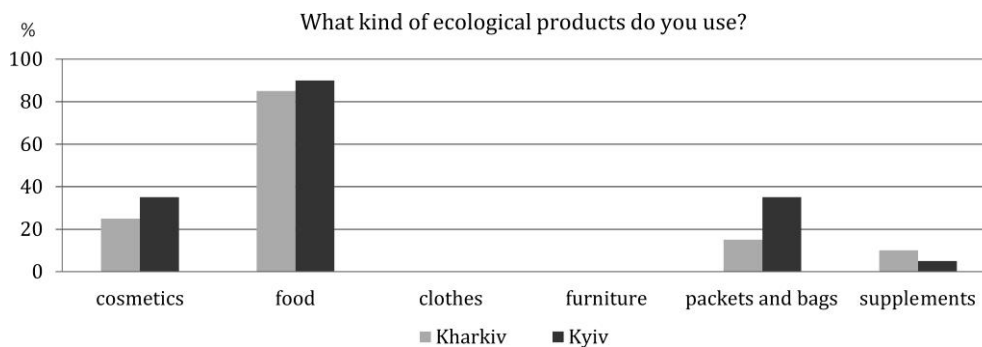


Fig. 8. Comparative characteristics of responses of respondents (Source: author's research)

The second and third choices are «cosmetics» and «packets and bags» respectively. Such answers may be due to the fact that the overwhelming majority of respondents are women who are interested in the environment and prefer high-quality food products and reusable tissue bags. The answer to the question about dietary supplements was popular among men (10% of Kharkiv citizens and 15% of Kyiv citizens). None of the respondents in the studied cities used environmentally friendly clothes or furniture.

The results of the survey showed that consumers in Kharkiv and Kyiv are willing to pay up to 10–25% more than the market price for ecological products than for conventional products (Fig. 9). Among respondents in Kharkiv, this answer was chosen by 80% of respondents, and in Kyiv – 70%.

This may indicate that the high price of significantly limits the number of consumers who are willing to buy them. No respondent was ready to pay over 50% for environmental products.

This may be due to the low purchasing power of the population; their lack of awareness of the benefits of environmental goods; the type of environmental goods which consumers do not choose without incentives; or with the socio-cultural background of the consumer by the model of his behavior and the adoption of appropriate decisions.

Consumption values differ significantly across consumers exhibiting different preference for products with and without green credentials, being higher for those with green purchase or consumption experience (BISWAS & ROY, 2015).

In the conditions of low purchasing power of the population, the priority tasks is the stimulation and increase the solvency of consumers while motivating them to consume ecological products, first of all, food products that directly affect their health.

About the differentiation of the level of readiness of Kharkiv and Kyiv citizens to spend additional funds on ecological goods are shown in Fig. 10.

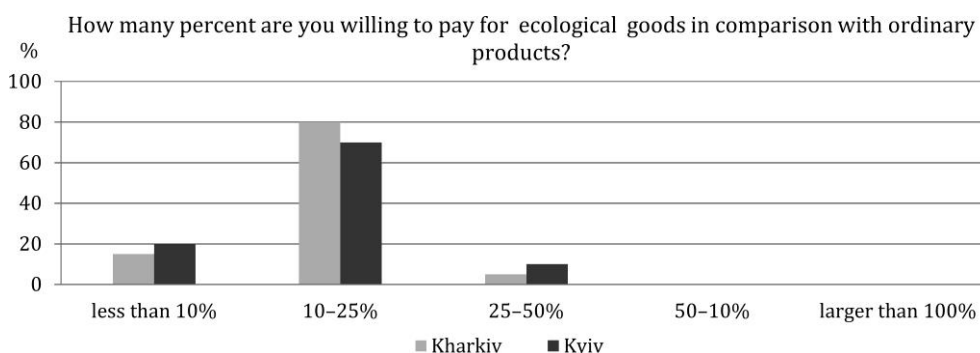


Fig. 9. The willingness of respondents to pay for ecological goods (Source: author's research)

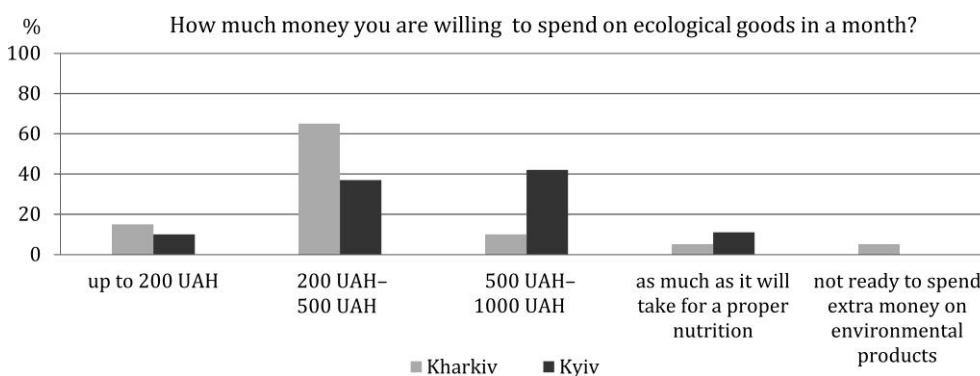


Fig. 10. Willingness of respondents to spend additional funds on ecological goods (Source: author's research)

The results of the survey showed that the residents of Kyiv are willing to spend more money on ecological products than the inhabitants of Kharkiv. Kyiv residents are, on average, ready to spend up to 1,000 UAH each month, while the majority of Kharkiv residents it was «from 200 to 500 UAH». There may be several reasons for this. Firstly, ecological products in Kyiv are becoming

popular in recent years; secondly, the main respondents in Kyiv were women who pay more attention to the consumption of natural products and ecological goods; Third, the wage level in the two cities is slightly different – in Kharkiv 8221 UAH/month on average in January-March 2018 is much lower (33.6%) than in Kyiv (12377 UAH/month for the same period). In addition, there

were pensioners among the respondents in Kharkiv, which could be reflected in the results of the survey. In the case of green eating behaviour, the cost and unavailability of green products are considered to be inhibiting factors (YOUNG ET AL., 2010).

Taking into account the above-mentioned reasons, the answers of the respondents to the question «How is it necessary to stimulate the demand for ecological goods in Ukraine?» (Fig. 11) are interesting. Most respondents believe that price is one of the decisive factors that determine the success of the product on the market. At the same time, the lack of appropriate legislative acts regulating this sphere substantially limits the development of the market for ecological goods.

As practice shows, the lack of protection for the term «ecological» creates an opportunity to sell any item that has not passed the appropriate certification under the guise of «ECO». In the absence of proper regulatory regulation, such violations do not entail any liability. Thus, firstly, the consumer suffers, by paying up to double the price for ordinary mass produced products; and secondly, the very idea of ensuring the credibility of high-quality, organic food products is discredited.

Among the main problems that are inherent in the market of ecological goods, respondents chose the following: lack of awareness of buyers with the notion of «ecological goods», lack of desire to buy them and lack of support from the state (Fig. 12).

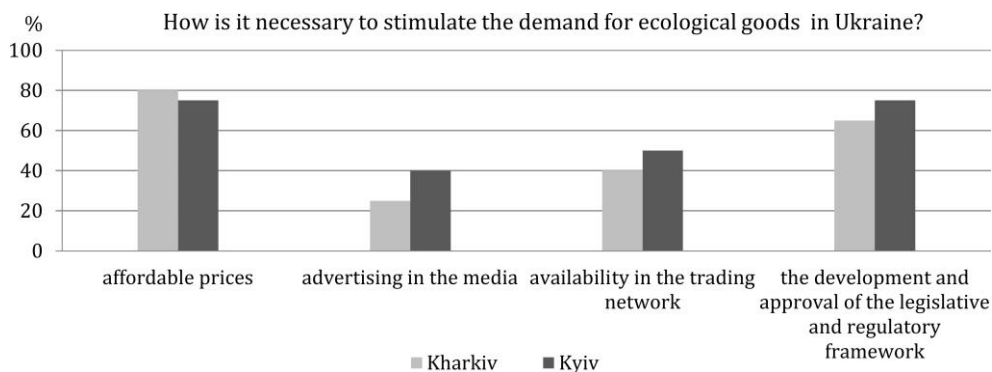


Fig. 11. Preferred directions for the stimulation of demand for ecological goods (Source: author's research)

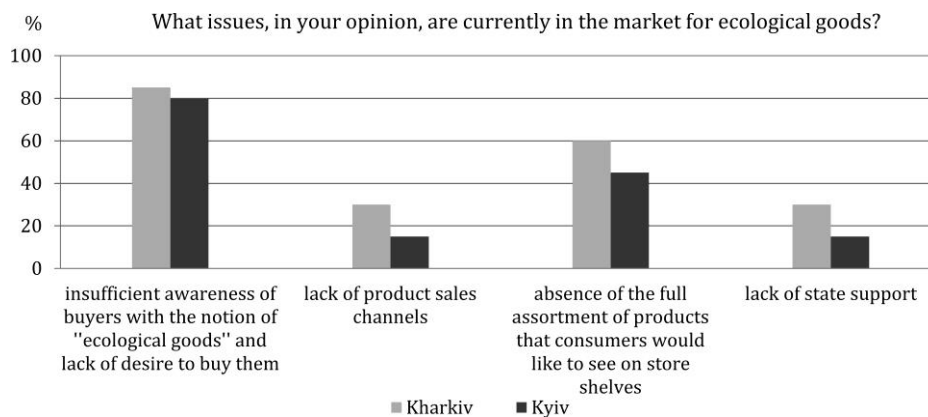


Fig. 12. The problems that are inherent in the market of ecological goods (Source: author's research)

The answers from the survey give grounds for the conclusion that consumers are not aware of the detail surrounding ecological products, which means that there is a need to develop and implement measures to improve it.

The results of the study (Fig. 13) indicate that the majority of potential consumers in Kharkiv are interested in the further development of ecological production in Ukraine.

Among them, 70% believe that the consumption of environmentally safe products will guarantee

them a higher quality of life, 90% state that food quality is unsatisfactory and 60% are interested in developing ecological production for future generations. Only 15% of respondents believed that the consumer is now supplied with sufficient food. 85% of respondents in Kyiv also believe that there is a need for the development of ecological production. This indicates the interest of consumers in quality products, as well as in its development and popularization.

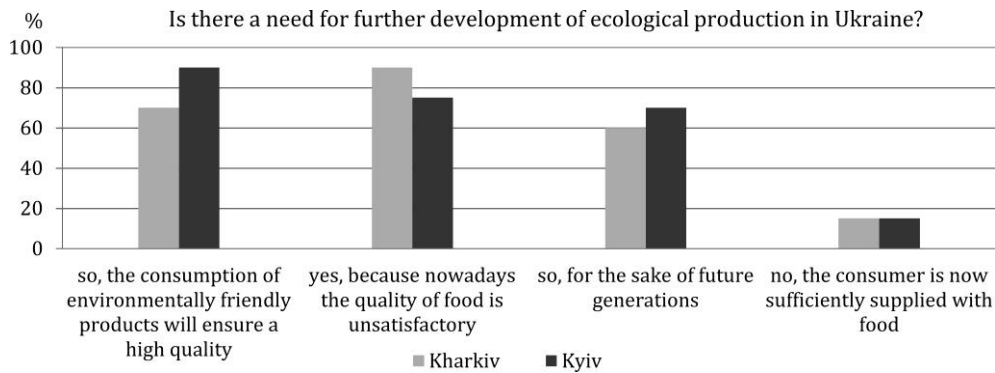


Fig. 13. Interests of respondents in further development of ecological production in Ukraine (Source: author's research)

The results of the correlation analysis showed that the selected socio-demographic factors (gender, age, education and social status of respondents) have a weak correlation with the willingness of consumers to pay a price premium for ecological goods. It is worth noting that the willingness of consumers to pay a price premium for ecological goods is most correlated with social status ($r = 0.278$).

Analysis of the results of regression modeling (Table 1) shows that the statistically significant (at the 0.05 level) influence of "willingness to pay" is made only by the social status of the respondent.

Table 1. Results of multiple regression linear modeling of the impact of gender, age, education and social status on willingness of consumers to pay a price premium for ecological goods (Source: author's research)

| Indexes | Coefficient regression | Standard error | t-statistic | p-value |
|---------|------------------------|----------------|-------------|---------|
| Const. | 2.356 | 0.501 | 4.699 | 0.000 |
| X_1 | -0.203 | 0.178 | -1.136 | 0.264 |
| X_2 | -0.156 | 0.109 | -1.432 | 0.161 |
| X_3 | -0.110 | 0.150 | -0.734 | 0.468 |
| X_4 | 0.181 | 0.083 | 2.175 | 0.036 |

The regression model shows that the socio-demographic factors (gender, age, education and social status) explain only 17.8% of the variation of resultant trait. The coefficient of multiple correlation for this model is 0.421, which indicates a moderate correlation. The relatively high standard error for the regression coefficient X_3 indicates that this coefficient cannot be estimated with great accuracy.

Thus, the results of the regression analysis showed that such socio-demographic factors as gender, age and education can not be considered

as important factors in the willingness of consumers to pay for ecological goods. This confirms the view that economic factors are decisive for a consumer's willingness to pay a price premium for ecological goods in a country with a low level of income per person.

4. Conclusions

1. The results of the research indicate a sufficiently high potential for the development of the market for ecological goods in Ukraine, since more than half of the respondents are ready to buy such goods, even at more expensive prices than the market price. The survey results indicate that 75% of Kharkiv consumers consider the current quality of consumer goods it low. For the residents of Kyiv, the number of respondents who are dissatisfied with the quality of goods is somewhat smaller and is 55%. This indicates that the market for these products in Kyiv is more developed and allows for choosing more quality products.

2. The results of the study indicate that consumers are often interested not only in the most ecological product, or service, but in the ability to solve certain problems with the help the purchased goods. The overwhelming majority of those who support the concept of sustainable development are young people (under 30 years old).

3. The greatest potential of the market development, provided that the price margin for the ecological goods is not more than 25%. Accordingly, the higher the price margin on ecological goods, the less consumers are willing to buy them, which must be taken into account by producers when setting the price.

4. The survey showed that residents of Kyiv are willing to spend more on ecological products than the residents of Kharkiv. Kyiv residents are, on average, ready to spend an additional 1,000 UAH a month, while most Kharkiv residents are only willing to spend between 200 to 500 UAH.

Most respondents believe that price is one of the deciding factors that determine the success of the product on the market; and the lack of proper legislative regulation substantially limits the development of the market for ecological goods.

5. Despite the fact that the majority of the consumers surveyed, in their words, are concerned about the environmental quality of products and that this problem can negatively affect their health, many of them are still not well-informed about the environment. At the same time, the study found that 85% of potential consumers are interested in the further development of ecological production in Ukraine. For this, it is necessary to significantly increase the purchasing power of the population while motivating them to consume ecological produced products (primarily food products).

The results obtained contribute to the further development of a scientific basis for forming a market for ecological goods, particularly in identifying and analyzing the willingness of local consumers to pay a price premium for ecological goods in different regions of Ukraine.

The results of the study can be used to evaluate the prospects for developing the market for ecological goods, in order to develop a set of measures to increase the level of willingness of local consumers to pay a price premium for ecological products (this will contribute to ecological improvement), as well as for the adoption of managerial and marketing decisions within the relevant market segment. For example, knowledge of the willingness of consumers to pay a premium and the size of this can be used by commodity producers when substantiating the price of ecological goods, which will enable them to optimize the strategy for promoting these products with the readiness of consumer purchasing. This opens up opportunities for expanding the capacity of the internal market for ecological goods, therefore, state policy should be aimed at increasing motivation, and increasing the solvent demand and achieving the harmony of environmental and economic interests of consumers and producers of these goods.

This study has its limitations and opportunities for improvement. The findings of this study are based on the survey data of respondents of the two largest cities of Ukraine. Future studies can test the reliability of the results obtained, using a wider set of data for other cities and/or regions.

Further research should aim at justification of institutional basis of increase the willingness of consumers to pay a price premium for ecological goods within specific market sectors.

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