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Consumer Attitudes, Knowledge, and Behavior in the Russian Market for Organic Food

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ABSTRACT

In the past few decades, the market for organic food has developed well in Western European countries and comparable markets like the United States or Canada. While these markets are now approaching market saturation, other markets still have huge potential for growth and are therefore of special interest to export companies. In this paper, we analyze the demands, knowledge, and expectations of the emerging market in Russia. It is well documented that the Russian market for organic food has had a much higher growth rate than Western markets in recent years. According to the USDA, the Russian market grew significantly during the last years. The increase might also be due to changes in Russian consumers' behavior. However, some challenges must be considered when entering the Russian market with premium products: (1) a large number of low-income consumers are not able to pay for premium products, and (2) up until now, there have been no official organic labels available in Russia, and, therefore, it is likely that the Russian population lacks knowledge of what organic food is and which requirements are connected to the organic production process. Considering these restrictions, we analyzed important factors affecting Russian consumers' food choice on the one hand and their knowledge of organic food on the other. This paper presents results for one specific product (organic potatoes), which can be considered to be a typical alternative to low-priced, conventional products. A conjoint analysis was conducted in Saint Petersburg (n = 300) to investigate the importance of the buying attributes of organic potatoes. While the results are not representative of the whole Russian market, they show crucial differences in consumer attitudes compared to Western markets and confirm that the average consumer knowledge about this product category remains low. These findings offer valuable information to those stakeholders of the supply chain who want to enter a market with high growth rates but obvious shortcomings.

Keywords: Russian Federation, organic food, organic labels, food choice, consumer perception, conjoint analysis

1 Introduction

The market for organic fruits and vegetables is growing quickly all over the world. In Russia, however, the market for organic food is not yet well developed. As such, the aim of our study was to analyze the market of organic fruits and vegetables in Russia. To this end, we conducted an empirical study in Saint Petersburg in 2012 for which we interviewed 300 consumers in the middle-class supermarket "Lenta" and in the streets. With this empirical approach, we wanted to:

- check respondents' knowledge about organic production and labels,
- analyze their interest in and motivations for buying organic fruits and vegetables,
- analyze the most important factors influencing consumer choice (approximations via conjoint measurement),
- describe the socio-demographical characteristics of respondents in order to link these variables to the outcomes of our conjoint measurement.

In brief, we wanted to gain initial insight into the wishes and demands of the potential Russian consumers of organic food, as has been done in other countries (e.g., Hearne and Volcan, 2002). In order to understand whether the market is ready for the introduction of organic products and whether it would be beneficial to develop local organic production, it is important to find out if consumers are interested in buying organic food, if they are ready to pay premium prices for it, and if they have knowledge about different organic certification systems and labels. The latter is especially important in terms of consumer trust and willingness to pay (Janssen and Hamm, 2012). Thus, the research question guiding this study is whether it is worth developing the market for organic food in Russia. Up until now, there have been almost no empirical data available about consumer behavior and organic food in Russia. Our empirical work, therefore, intends to gain deeper insight into this emerging market, following the findings of Honkanen and Frewer (2009) about Russians' food choice motives. Considering the size of the market and its heterogeneity, these are only initial insights that are valid only for a small region of Russia.

2 The Russian market for organic foods

Compared to other important consumer markets, there is still huge potential for organic food in the Russian market. According to Willer et al. (2012), the total area of agricultural land used to cultivate organic food in Russia amounted to 44,000 ha in 2011. Only one year later, in 2012, Willer et al. (2013) estimated the total area at around 127,000 ha. This would

imply a tripling of the amount of land used for the production of organic food. Yet, this figure still represents less than 1% of Russia's total agricultural land.

There are several problems with developing the national organic market. Local organic production is still a small niche, both farmers and consumers lack knowledge about organic production and certification systems, and the distribution network is not well developed. In particular, there is no national standard for organic goods in Russia, and the use of terms such as "bio," "natural," or "eco" for promoting products is not strictly regulated. As a result, some producers use these definitions to market their goods without any confirmation. This can lead to confusion and lack of trust on the part of consumers. Due to the fact that organic products differ from conventional products in ways that are not visible, consumers must believe that the use of such terminology is not just a marketing ploy to sell foods at premium prices. However, the total market for organic foods in Russia is still relatively small, only amounting to about EUR 65 million in 2009 as compared to EUR 6 billion in Germany and EUR 1 billion in Austria, Spain, and Sweden (Schaak et al., 2013; however, statistics are not very trustworthy for the Russian Federation and can only be an estimation). In 2012, the USDA estimated that the Russian market reached almost US$ 150 million and almost US$ 170 million in 2013 (Kolchevnikova, 2013; equals about EUR 115 million and EUR 130 million, respectively).

In terms of Russian legislation, only one government document concerning organic foods has appeared. On April 21, 2008, the Chief Health Officer of Russia issued the "Approval of Sanitary and Epidemiologic Rules and Standards No. 2.3.2.2354-08." This regulation contains a definition of "organic" products and a description of the requirements for growing and processing organic food. Most of these requirements correspond to EU regulations, but there is no mention of certification processes or information about certification bodies and authorities (Kolchevnikova, 2011).

Currently, foreign certification bodies can certify Russian producers according to EU, U.S., or Japanese standards. Usually, it depends upon the relevant export market for Russian products. Imported products are extremely expensive due to transportation costs being added to already premium prices. So, up to now, only wealthy Russians have been able to afford organic products (Kolchevnikova, 2011). But, there is potential to develop the market for organic products in Russia because Russian consumers, especially younger ones, want to take care of their appearance and health and are aware of a number of diet-related diseases. As a result, consumers are increasingly more interested in purchasing healthy products, and therefore the market for diet, organic, and fresh foods will grow rapidly, giving rise to premium prices, specialist stores, and dedicated supermarket sections (Kolchevnikova, 2010).

3 Materials and methods

The data were collected in a "Lenta" supermarket and on the streets in Saint Petersburg, Russia from April 20 to May 20, 2012. The questionnaire for the personal interviews consisted of two parts. The first part aimed at checking consumers' knowledge about organic production and labels, surveying whether they were concerned about the risks of pesticide residues in their fruits and vegetables and about GMO products, and assessing their interest in and motivations for buying healthy food. The second part of the survey consisted of a conjoint analysis (CA). Consumers were asked about their preferences when choosing potatoes (the empirical object of this study). This measurement was done via a ranking CA. This particular technique was chosen because it is an adequate method for analyzing potential markets, as it allows the researcher to estimate the value consumers place on each attribute of a product and to evaluate many attributes simultaneously. CA can simulate a situation close to reality in which a person does not focus on one characteristic of a product, but makes a trade-off between different features. Moreover, it is an easy and practical technique to employ.

For the CA design, five factors were selected:

- Method of production: (1) organic and (2) conventional
- Origin: (1) local and (2) imported
- Convenience: (1) washed and (2) unwashed
- Packaging: (1) in nets and (2) in boxes
- Price (converted into Euros): (1) 0.25 €/kg, (2) 1.03 €/kg, (3) 2.06 €/kg, (4) 3.90 €/kg

All factors were orthogonal. Price was estimated to be a linear (less) factor, while the others were considered to be discrete. The orthogonal design of the survey was run in R ("AlgDesign" package). In total, five attributes (four of them with two levels and one with four) had 64 possible combinations. Out of these 64 possible combinations, 8 profiles were randomly chosen. Respondents were asked to rank each card (from 1 to 8) according to their preferences.

Conjoint analysis was used to approximate partial utilities for all factor values based on their ranking. Then the analysis approximated total utilities and defined the importance of each attribute. We used an individual CA, and the utility values were calculated for each respondent using an additive model. Metric ANOVA was used to determine partial utilities, while the average utility of a factor value was calculated as the difference between its average empirical rank value and the average of all ranks. Then, we were able to compute the total utility of the stimulus cards.

In addition to these two empirical parts of the questionnaire, we asked respondents some general questions, including their demographic characteristics (age, sex, number of children, education, income, etc.). We also asked interviewees if they were responsible for buying products and where they usually purchased their food. Finally, we asked them if they traveled often to Europe, because people who have traveled a lot might have seen and gained knowledge about organic products elsewhere. The aim of this part of the study was to understand the type of person interested in consuming organic products.

4 Results

In terms of the general socio-demographic characteristics of the respondents, the results showed that our sample was not completely representative of the statistical structure of the population. The age of the respondents varied from 18 to 70 years (average age: 33.8 years); young people were overrepresented (58% of the respondents were under 30 years old). Sixty-six percent of the interviewees were women, and 41% of the respondents had children (23% under 18 years old, 11% under 5 years old, and 5% under 1 year old). With respect to their education, 4% of the respondents had completed high school as their highest educational level, 16% had finished specialized college, and 18% had incomplete higher education. Most of the respondents (42%) had a university degree (diploma, specialist or bachelor degree), and 9% had a master's degree. Ten percent had a PhD or more than one degree. The higher representation of people with diplomas and lower representation of those with master's degrees is connected to the system of education in Russia. The diploma was part of an older system of education, while bachelor and master's programs only appeared after the adoption of the Bologna process since 2003. Sixteen percent of the interviewees earned less than EUR 255 per month, but the majority (53%) had a monthly income between EUR 255 and 765. Twenty-eight percent had an income between EUR 765 and 1,530, and only 3% had an income above EUR 1,530. Sixty-eight percent of the interviewees were responsible for buying products for the household, while 59% of respondents traveled to European countries.

4.1 Knowledge of consumers about organic production and labels

Concerning their shopping behavior, most of the respondents answered that they would buy organic food if it were available in supermarkets. (Only 4% would definitely not buy organic food, not even sometimes.) The non-availability of organic food seemed to be one obstacle for consumers in purchasing organic food and also getting in touch with this product category. Availability seemed to be a dominating characteristic of the Russian food market that influenced consumer choice and preference. In line with Honkanen and Frewer's (2009) findings, "availability" was the second most important attribute for the respondents. Up to now, most organic food on the market has been imported at premium prices (far beyond being affordable for average consumers). Obviously, these circumstances have negatively influenced consumers' knowledge about organic food.

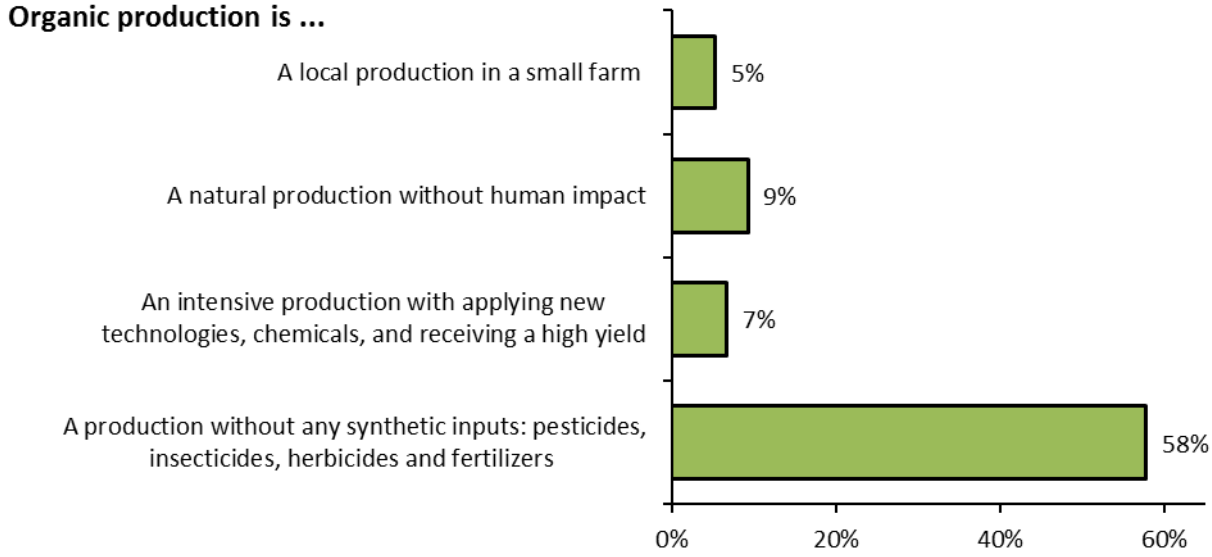

Figure 1. Consumers' opinions about which definition of organic production is correct
(Database: 79% of all respondents who stated that they had at least "heard" about organic products)

As illustrated in Figure 1, the results of the survey showed that 79% of the respondents had at least heard of the term "organic," and 58% defined organic production in the correct way. Fifty-five percent of the respondents understood that companies should pass through a certification process in order to sell their goods with an organic label. Almost 40% of the respondents declared their knowledge of organic fruits and vegetables, but did not have clear ideas about the production process. These findings correspond to other empirical studies. For example, Krystallis and Chryssohoidis (2005) showed that 66% of Greek consumers who bought products in retail chains were able to provide correct definitions of organic production. Fotopoulos and Krystallis (2002) pointed out in their research that 82% of Greek consumers were aware of the term "organic," but only 54% of them could give a correct definition of organic food.

In contrast to their knowledge about organic food in general, the respondents' knowledge about labels was very poor. As one can see from Table 1, the most well known labels were "Pure Dew," "Saint Petersburg Sign of Quality," and "Vitality Leaf," followed by "Natural Product," "Euro Leaf," and "USDA Organic." The least familiar label was the Japanese organic label JAS. (Only about 5% of the respondents had seen it.) The general low knowledge about organic labels may influence consumers' willingness to pay for organic food; it is likely that if consumers had more knowledge about the labels and the corresponding organizations, their willingness to pay would increase (Rousseau and Vranken, 2013).

Table 1.
Respondents' knowledge about organic labels

Labels	Label description	Known label	Unknown label	… is an organic label	… is not an organic label
	Agrosophia's (Moscow) eco-label "Pure Dew"; standard developed according to EU Regulation 2092/91 (www.biodynamic.ru)	35.0%	65.0%	26.3%	73.7%
	St. Petersburg Sign of Quality; voluntary certification on quality; no organic label (http://quality.spb.ru)	29.7%	70.3%	3.3%	96.7%
	Voluntary life-cycle, eco-labeling program "Vitality Leaf," based on ISO 14024 (http://www.ecounion.ru/en/site.php?&blockType=251)	25.0%	75.0%	16.7%	83.3%
	Sign of quality "Natural Product," issued by Council of Public Quality Control of Saint Petersburg; no organic label	17.0%	83.0%	15.0%	85.0%
	EU organic label	16.0%	84.0%	17.0%	83.0%
	USDA organic label	10.3%	89.7%	29.7%	70.3%
	JAS label; organic certification system for Japan	5.3%	94.7%	9.3%	90.7%

Among all the labels, "USDA Organic" was the most associated with being organic, perhaps because the word "organic" is written directly on the label and not purely because of consumer recognition. Nevertheless, the vast majority still did not consider it to be an organic label (see Table 1). This finding is supported by comparable results in the literature, according to which the most successful organic brands incorporate the word "organic" into their name, rather than relying on certification labels (Padel and Foster, 2005). Therefore, it is not surprising that about 30% of the respondents named "USDA Organic" as an organic label, followed by "Pure Dew". Approximately 17% of the respondents thought that "Euro Leaf" and "Vitality Leaf" were organic labels. Accordingly, "Saint Petersburg Sign of Quality" was not associated with being organic. (Only 3.3% of the respondents thought that it was an organic label.) Zakowska-Biemans (2011) revealed similar results for Polish consumers; some consumers could not even distinguish organic products from conventional ones. Consequently, one of the main barriers to developing the market for organic products is consumers' lack of knowledge about organic labels. Thus, providing more information about organic labeling would be useful in developing the market for organic products.

4.2 Concerns over food production and the attributes of organic food

Russian consumers seem to be particularly concerned about pesticides in food. The proportion of consumers who stated that they were always concerned about pesticides was almost 40%. When respondents answering "often" and "sometimes" are included, the proportion rises to almost 90%. This proportion is even higher than for GMO foods: Here, too, most of the consumers (more than 80%) were concerned about GMO products; only about 20% were not concerned. Interestingly, these proportions are much higher compared to highly developed food markets in Europe, Asia, and Northern America. Obviously, this is a good starting point for marketing organic food in Russia, as only a minority of the population is not concerned about pesitcides, GMO products, and other negative impacts of conventional food production.

Mainly two positive effects are attributed to organic food: healthiness and nonuse of GMO or synthetic inputs during production. About three-quarters of all respondents said these were their main reasons for buying organic food.

Table 2.
Reasons for respondents' choice whether to buy organic products

Reason for respondents' choice	Percentage of responses
They are good for my health	74%
They do not contain synthetic inputs and GMO	67%
The production and processing of organic fruits and vegetables are strictly controlled	34%
They are good for my children	28%
They are good for the environment	22%
They have a better taste	17%
They are fresher than the other products	16%
I just wanted to try them as something new	12%
I don't think there is anything special about them that justifies a higher price. "Organic" is just a marketing gag/promotion	12%
I do not trust the label / I do not think it is really organic	11%
They are too difficult to get	11%
It is trendy to buy organic products	2%
Other reasons	1%

One-third of the respondents offered other reasons for their choice to buy organic food, but these reasons were much less important than the two mentioned above (see Table 2). These results are comparable to the outcomes of other studies in various countries, which have shown that health is the most important deciding factor for buying organic products (Canavari et al., 2002; Chinnici et al., 2002; Fotopoulos and Krystallis, 2002; Loncaric et al., 2009). These results also clearly promote the assumption that, in Russia, environmental arguments (e.g., less pollution) are of minor importance (only 22%), which is similar to a 2002 study (Chinnici et al., 2002) showing an even lower percentage in Italy (only 11%).

5 Conjoint Analysis: Importance of different attributes when buying organic food

Considering the findings that (1) organic food is mainly bought because of health and product quality attributes, and (2) there is still a huge lack of knowledge about organic food, the following question arises: Is there a potential for the mass marketing of organic food in the Russian market, especially taking into account the average low income of a large proportion of the Russian population? To be able to answer this question, a conjoint analysis (CA) was conducted as described above.

5.1 Importance of product attributes

From all of the factors included in the empirical design of the CA, price was by far the most important when making a buying decision (Figure 2). It can be assumed, therefore, that there is a strong negative correlation between the price of organic food and the willingness to buy.

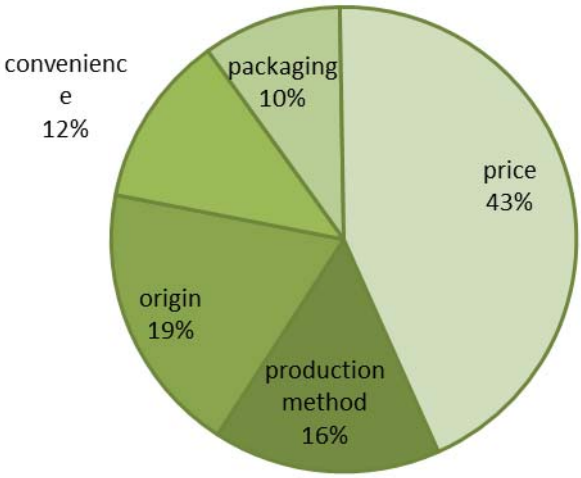

Figure 2. Importance of different factors for respondents' choice

This outcome characterizes the Russian food market as being extremely price-sensitive. The average Russian consumer demands cheap food products. Therefore, product price will be one of the main barriers to introducing organic food into the market. This is comparable to the results of Batte et al. (2010). In analyzing jam, they estimated that an increase in price by USD 1 would equal a 36% decrease in buying probability. With our findings, for average consumers, the probability of buying premium food products decreases toward zero if products are above a certain margin. So, for the average consumer, the acceptable premium for the added value "organic" is low. However, this barrier is not relevant for all consumers. For about 10% of the respondents, the reverse was true: the higher the price, the higher the probability of buying the product. Probably, for these consumers, price is an indicator of product quality. Therefore, these buyers could be the relevant target group for marketing organic food in Russia.

The other attributes are of much lower importance (Table 3). Almost 20% of importance was placed on the origin of the product and 16% on method of production. Thus, consumers in Saint Petersburg paid more attention to origin than to production method. James et al. (2009) presented similar results, showing that the origin of production is a crucial characteristic influencing consumer choice. Other authors have presented similar findings (e.g., Kovacic et al., 2002).

Table 3.
CA: Summarized utility values

		Utility value	Standard error	Utility (graphical representation)
Production	Conventional	-0.309	0.100	
	Organic	0.309	0.100	
Origin	Local	0.615	0.100	
	Imported	-0.615	0.100	
Convenience	Washed	0.143	0.100	
	Unwashed	-0.143	0.100	
Packaging	Box	-0.003	0.100	
	In nets	0.003	0.100	
Price	0.25	-0.214	0.018	
	1.03	-0.883	0.076	
	2.06	-1.766	0.151	
	3.90	-3.343	0.286	
(Constant)		6.052	0.166	

Considering the average utility approximated through our CA, the following ideal product can be created: organic, locally produced, washed, in nets, and at the lowest possible price. However, the attributes washed and in nets are almost negligible, and the difference between the utilities is small. Furthermore, this product can only be hypothetical as local, organic food at the lowest prices is not realistic.

Price had a negative utility. As one can see from Table 3, the utility of the highest price (3.90 Euro/kg) was 15 times lower than the lowest price (0.25 Euro/kg): -3.34 vs. -0.21. Hence, price played a crucial role in the everyday buying decisions of most of the respondents. If we assume that organic products will be sold as premium products, this will be an obvious problem in mass marketing in Russia. It might also explain why until now organic food has been a niche market in the Russian food market.

Most of the respondents preferred local potatoes over imported potatoes. The utility for local potatoes was 0.615 as opposed to -0.615 for imported. Since Russian consumers are quite traditional, the origin of potatoes is usually quite important. However, the issue of origin could depend upon the type of the product. Potatoes are traditional products in Russia. Therefore, many of the respondents might have believed that it is better to produce potatoes locally than to import them from abroad – a result that can be found quite often in the literature with regard to other food markets (Kovacic et al., 2002).

The organic method of production was preferable to conventional methods (0.309 vs. -0.309). According to these results, Russian consumers prefer organic potatoes, but since there are not many organic fruits and vegetables available on the market, most consumers have had no contact with organic food. This is probably the main reason why this attribute is not very important and why there is not much difference in utility between organic and conventional.

5.2 Cluster analysis

As mentioned above, there is a group of consumers who are not that price-sensitive (i.e., showing increasing utility with rising prices). The existence of this group could offer a way to introduce (locally produced) organic food into the market. In order to gain more insight into this question, a cluster analysis was conducted (what is usually done when applying CA; methodological clustering approach: hierarchical cluster analysis with cluster algorithm "Ward method"; selection of number of clusters based on elbow criterion). Out of the related analytical results, we were able to extract three different groups of customers:

1. Traditional buyers preferring mainly locally produced food (16% of all respondents);
2. Price-sensitive buyers (the biggest cluster with 55% of all respondents);
3. Organic buyers (29% of all respondents)

Table 4.
Cluster analysis: Mean utilities and clusters

	Traditional cluster	Price-sensitive cluster	Organic cluster	Total
N	49 (16%)	165 (55%)	86 (29%)	300
Conventional	-0,270	0,067	**-1,052**	-0,309
Organic	0,270	-0,067	**1,052**	0,309
Local	**2,000**	0,346	0,343	0,615
Imported	**-2,000**	-0,346	-0,343	-0,615
Washed	-0,087	-0,068	0,677	0,143
Unwashed	0,087	0,068	-0,677	-0,143
Box	-0,010	0,086	-0,172	-0,003
In nets	0,010	-0,086	0,172	0,003
Price of product (linear less)	-0,402	**-1,177**	-0,503	-0,857

Cluster 3 can be considered to be the core group for marketing organic food as it revealed the highest utility for the attribute "organic" (see Table 4). But, also for this group, moderate prices would be required. Price remained very important with the majority of consumers, including those in Cluster 3. No clusters were identified wherein the price of the food product became obsolete. In addition, there was no strong relationship between consumer behavior, attitudes, and income situation and organic food. (There were differences, but these differences were statistically non-significant.) The three identified clusters differed slightly in terms of the income situation within the group, as well as education. Organic buyers and traditional buyers were found more often among higher income classes (see Table 5). However, for our sample, this relationship between income and the demand for organic food was not very strong compared to other empirical findings (e.g., Fotopoulos and Krystallis, 2002; Roy et al., 2006).

Table 5.
Distribution of income classes and cluster

	Traditional cluster		Price-sensitive cluster		Organic cluster		Total	
Income per month	n	%	n	%	n	%	n	%
less than 255 €	2	4%	32	19%	13	15%	47	16%
255 - 765 €	28	57%	92	56%	40	47%	160	53%
765 - 1530 €	16	33%	38	23%	29	34%	83	28%
more than 1530 €	3	6%	3	2%	4	5%	10	3%
Total	49		165		86		300	

6 Limitations

Of course, our findings need to be discussed with several limitations in mind. Obviously, our findings are not immediately transferable to other regions of Russia. Strictly speaking, we analyzed the market in Saint Petersburg. However, we expect that similar results would be observed in other urban Russian markets. Conducting empirical studies in other regions of Russia, therefore, could be an interesting avenue of future research.

In order to keep information acquisition simple, we decided to use a simple additive model, using ranking technology in our CA. We did not use a Choice Based Conjoint Analysis (CBC) with discrete choice modeling because Russian consumers are generally not familiar with empirical research. Traditional CA, therefore, is easier to understand and requires less time if, as in our case, only a small number of stimulus cards are used. For our purposes, we used a very basic product category (potatoes) for which the number of relevant attributes was limited. We presented only eight stimulus cards, which made it easy for respondents to rank them.

The orthogonal design of the used product features could not be guaranteed, especially in terms of price and for example organic production, because the product features were not completely independent. (To some extent they were, but discount prices and organic production usually do not fit together.) This is a common problem when using CA as it reduces the predictability of product choices. In effect, some combinations of attributes will never be available on markets.

The price span from EUR 0.25 to 3.90 is huge. Although these are realistic price levels for the Russian food market, it probably helps to explain the importance of the attribute "price." In fact, the importance of price might have been due to this price span. Yet, as the price levels came close to the real market conditions for potatoes in Saint Petersburg (and the Russian market as a whole), the core finding that product price is by far the most important attribute is still valid.

Concerning the structure of our sample, our sample differed from the overall structure of the Russian population (particularly concerning income and education). This discrepancy might have been due to the locations where the interviews took place. Since many of the interviews were conducted in a middle-class supermarket, the demographics of the customers were obviously not representative of the overall structure of the society. However, in our study socio-demographics are not very important for describing consumer behavior, and so such deviations may be negligible.

7 Conclusions and future perspectives

We investigated the market for organic food in Saint Petersburg as an example of urban Russian markets. Although about half of our respondents knew at least something about organic production, we found that there was a great lack of knowledge concerning organic certification and organic labels. In general, consumers were not familiar with organic labels and standards. As Zakowska-Biemans (2011) argued, too little knowledge could be a significant obstacle in developing the organic food market. Currently, this seems to be the case for the Russian market.

Consumers surveyed were concerned about GMO products and risks of pesticide residues in their fruits and vegetables. This concern should be addressed by a clear message when marketing organic food – that they do not contain any GMO ingredients or pesticide residues. Consumers must be trusting when making the decision to purchase organic food. Therefore, clear and understandable organic labels are necessary.

The finding of Janssen and Hamm (2012) that consumers' willingness to pay for organic products is connected to well known organic labels seems to hold true for Russian consumers as well. Janssen and Hamm (2012, 9) pointed out that "it is advisable to label organic products with well-known organic certification logos that consumers trust."

The majority of the respondents declared that they would buy organic fruits and vegetables if they were available in supermarkets. The most common reasons given for purchasing organic products related to health concerns and concerns over chemical substances and GMO products. The attribute price was by far the most crucial factor determining consumer choice, followed by origin and method of production. In general, consumers preferred locally produced food. Other attributes connected to convenience or packaging did not seem to be important characteristics for the respondents.

The core outcome of our research differs significantly from studies in developed markets; it is the price that matters to the vast majority of Russian consumers. As a result, price sensitivity is a huge obstacle for marketing premium products in Russia. Organic food needs to be cheap. Only then will it be possible to succeed in mass distribution. Another strategy could be the distribution of organic food at premium prices for only a small minority of consumers with significantly higher than average income and higher education. In this case, organic food would remain a small niche within the food market (as it is now) and would not be able to attract a significant proportion of the agricultural sector in the future. But, the Russian food market is a very large market consisting of millions of potential customers. The income situation is improving, at least for parts of the population. Thus, there is significant potential for foreign companies to import organic food into the Russian market.

All in all, the market for organic food in Russia is only in its initial stage of development. Most consumers have heard about organic products, but usually have no knowledge about the product category. They are not familiar with organic labels, and so, up to now, no basic signal has been available, which could support the building of consumer confidence in organic food.

Within this context, we identified one important issue that contradicts the premium-price strategy mentioned above: Consumers prefer local products. There are numerous studies available that mention how domestic products are becoming more and more popular and how "localness" has become more important to consumer choice than the method of production. For example, Roosen et al. (2012) showed that organic products lose their authenticity when they are not local. Up to now, almost all organic products sold on the Russian food market have been imported. Producing local organic fruits and vegetables seems to be an important strategy. Obviously, the production cost will decrease with increasing production volume. Logistics will become less costly compared to imported goods. Altogether, domestically produced organic food would probably be much cheaper than imported organic products. Together with consumers' preferences for local food, lower prices could significantly support the further development of the Russian domestic market.

The barriers for development are the same as in other Eastern European countries. The problems are connected to distribution channels (i.e., organic products are unavailable for consumers), a lack of legislation and governmental support, a low rate of farmers converting to organic production, a lack of information and knowledge on the part of consumers, low market supply from the domestic market, a lack of training and education for farmers, the high prices of the products (which have to be imported), and the low quality of fruits and vegetables produced organically by local farmers. Western European countries have more or less overcome these barriers, but these factors continue to hinder the development of the market for organic food in Russia. However, the Russian market has a good outlook for development, at least if good quality organic products can be produced locally at competitive prices, or if more wealthy people can be reached with higher priced, premium organic food.

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