ROMANIAN CONSUMERS' CONSUMPTION OF GREEN PRODUCTS

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Abstract

To be or not to be green? Becoming a green consumer is a matter of sustainability, which means be able to live without exhausting the resources available and without destroying the environment, without compromising the possibilities of meeting the needs of the next generations. Ours study proposes a three-month longitudinal analysis of the consumption of 80 families (40 of them with children up to 14 years, and 40 without children) from the eight Romanian counties, in order to identify the extent to which their consumption is green. As an exploratory research, the selection of panel respondents could be done non-randomly, using the snowball method. Responses were collected weekly and were provided in each family case by the main decider for food purchasing. For each of the 10 categories of food analyzed, the research provides information regarding: the main recipients of consumption, the share of green in all the consumed food, the source of the green food, motivations and purchasing criteria for green food.

Keywords

green/organic/bio products, green consumers, longitudinal study, panel

JEL Classification

D13, Q56, Q57, R21

Introduction

A proverb says "we are what we eat". Maybe for this reason many of the Romanian people have begun to be more careful about what they consume. Gradually, as environmental problems grew, the awareness of the need to protect and preserve the environment grew, society turning to a greener world.

The green word has in the mind of the consumer an association with ecology, environment and social responsibility. Bio, organic or ecological terms are used in different countries to designate the same concept. The 'ecological' term used in Germany, Spain and the Nordic countries speaking Danish is the same as the 'bio' term used by French, Italian, Portuguese and Dutch, and the 'organic' used in English-speaking countries. But very common are the cases where words such as 'natural' and 'traditional' are used, with different meanings.

Starting in June 2010, all green products produced in EU countries must be labeled with the leaf with those 12 stars of the European Union on a green background and be accompanied by a quality certificate (Dinu, V. et al., 2012 & Ahmad, J. et al., 2012). On the green label, the name and address of the manufacturer or processor must be mentioned, the product name, including the green production method used, the name and mark of the inspection and certification body.

Consumers of these products are aware that 'green' means also being in harmony with the environment, not just having a diet more suited to your metabolism. The consumer of green products is different from the ordinary consumer because it takes into account the needs of all people when it comes to the green product.

In promoting green products, it is preferable for the consumer to identify keywords such as natural, environmentally friendly, recyclable, and biodegradable, without adverse environmental effects. Those who consume green products are generally elderly people and people with higher studies and those who consume the smallest green products are unemployed, artisans and farmers (Chiran, A. et al., 2007).

And because there are green consumers, there also has to be a green marketing, which

Literature Review

According to a survey conducted in 2007 by Rackspace Managed Hosting quoted by the Ecomagazin, companies are increasingly worried about the effects their products and services have on the environment and for this reason they are willing to invest a lot more in their greening. Survey findings show that over 50% of the 400 consumers investigated would agree to take out 5% to 10% more from their wallets for green products and services. Only 75% of consumers surveyed would choose a green product instead of one that is not green, as the price would remain unchanged.

The International Institute for Sustainable Development published in 2013 a report describing green consumers, according to which the vast majority would agree to pay more for green products and 7 out of 10 consumers are willing to pay even up to 20% more. Only 1 out of 10 respondents said that under no circumstances would they pay more for them. On the other hand, the survey shows that respondents support companies that promote environmental friendly practices. A profile of current buyers of green products shows that they are female, aged 30-45, with children and having a higher level of available income. This research has shown that the main factor in purchasing green food is the level of consumer's personal income. It seems to be a distinction between those who claim to be interested in the environment and those who regularly buy green products.

Another study (Aertsens et al, 2009) highlights the impact of the emotional component of attitude on the decision to consume green food. Green food consumption decisions can be explained by referring to the attributes of green food with multiple abstract values such as security, hedonism, universality, goodwill, stimulation, self-direction and compliance. Calling on these values can positively influence attitudes towards eating green food.

A comparative study between UK and Denmark (Wier, M et al, 2008) identified the main differences and similarities. Emphasis was focuses in particular on consumers' perceptions and priorities, labeling systems and sales channels as a basis for assessing market stability and prospects for future economic growth. Most green food on both markets is produced and processed by large-scale industrialized units and distributed through mass-market channels, and consumer confidence is currently supported by eco-labeling schemes that seem to work well. However, a parallel market, based on the delivery of goods through various channels of direct sales to heavy users, prevails. The purchasing decisions for green food is primarily motivated by attributes such as: freshness, taste and health benefits, attributes that can be perceived as compatible with modern production and sales structure. However, mature markets for green food appear to be vulnerable to consumer dissatisfaction, especially among heavy users of green products.

The 2008 crisis did not affect the consumption of green food. Manget, J. et al (2009) and Montesi, C. et al (2014) have shown that even in times of economic crisis, consumers remain interested in green products and services, aware of their benefits to the personal budget and the environment. In order to evaluate green purchasing attitudes and behaviors, the research surveyed 9,000 subjects, ages 18 to 65, from nine countries (Germany, the United States, Canada, the United Kingdom, Spain, France, Italy, Japan and China). Consumers in these countries greatly appreciate the direct benefits that green products offer such as freshness and taste, the promise of security and health, but also the savings made on energy costs, even though the crisis has already occurred.

Romanian consumers of green products and services

According to Paglea & Vlad Uta (2012), they claim that the widespread green trend at the international level is barely beginning to develop in Romania. According to their results, green products are perceived as healthier, more environmentally friendly, and tastier. People with middle and high incomes are more likely to read the entire product label consistently. People with higher education are more likely to buy green products at least for testing. Women are more likely to buy green products because of their views on culture, future and social issues, as well as their interest in work, family and diet.

Following a survey for Green Report and conducted by Daedalus Consulting, Romanians have green spirit only if they have personal benefits from protecting the environment. Although they say they would be willing to take more money out of pockets for green products, practice proves the opposite. Regarding the willingness of Romanians to spend money on green products, 73.1% of respondents said they would be willing to pay more for green food grown without chemical fertilizers and pesticides, 49.1% would agree to pay more for renewable energy, and 36.3% would pay more for products with biodegradable components. To consume green products, an average of 30% of respondents said they would pay that extra money for renewable energy, 28.3% for biodegradable products and 25.8% for organic food. Among the phenomena that have a strong impact on the environment, the Romanians atmospheric pollution (84.3%), forest deforestation (84.1%), genetically modified food (77.3%), industrial pollution, drought and floods or the thinning of the ozone layer (by over 72%).

The first action in the top of the environmental protection activities that the Romanians have taken or will take, is to maintain the green space in front of the house; the second action is the purchase of economic bulbs, the reuse of plastic bags, reducing paper consumption, planting trees and shrubs, using public transport vehicles to the detriment of personal cars, recycling paper and glass and using products with returnable packaging.

Longitudinal study regarding the green consumption in eight Romanian Counties

The aim of the research is to do a comparative study of the behavior of purchasing and consumption of green food among 80 families (ten from each of the eight counties the Eastern part of Romania: Bacau, Botosani, Galati, Iasi, Neamt, Suceava, Vaslui and Vrancea), domiciled in the county residence-towns. Families are from the same generation, the Y generation, and supply food 2-3 times a week, especially at the end of it. Half of them have children up to 14 years of age, with the rest of families not having children. The study is not descriptive, the purpose being exploratory.

The overall objective is to identify the behavior of purchasing and consuming green food among the 80 families.

The specific objectives are:

O1. Determining the perception regarding green products, highlighted distinctly according to the respondent's gender;

O2. Identifying the motivation to buy and consume green goods for each of the two spouses, both husband and wife;

O3. Establishing the green consumer receiver for each family member;

O4. Measuring the real consumption of green food by respondent categories;
O5. Identifying the food groups of the green products consumed;
O6. Identifying sources of green food supply;
O7. Assessing the expected benefits of consumers from green food.

Two research methods were used to achieve these objectives: one quantitative and one qualitative. Firstly, a longitudinal study for a three-month period was conceived, represented by a survey of a panel of respondents reporting weekly data on their own consumption. Subsequently, a semi-structured in-depth interview was conducted with the family member in charge of the food purchase decision to analyze the data from their own consumption, respectively to identify intentions about future consumption.

The panel was designed to gather data on the green food consumption of the 80 families, as well as data on demographic characteristics and motivational factors such as environmental and health concerns that may have an impact on food consumption. Other issues that we've been tracking are related to the provenance and destination of products, the location of sales points where green consumers supply, and the preferences of the 80 families for certain food stores and categories. Responses were recorded weekly, based on their bills and shopping logs, in a database presenting the food consumed for 3 months.

The sampling method used is non-probabilistic, intentional. Taking into account that families that have to meet the characteristics considered in this study are difficult to approach or to find, a selection of subjects was chosen based on the snowball method. The target population consists of female and male from the Y Generation, married couples. This generation includes people born between 1980 and 2000, sometimes called Gen Y, Millennial Generation or simply Millennials. The Y Generation members are more trustful and tolerant than many of their parents, ambitious, competitive, and driven by the desire to make a difference. In addition, this generation is supportive of social causes and socially responsible companies.

The weekly green and conventional food purchases of the following food groups were recorded in the Excel database:

C1. Meat, fish, with the following subcategories: pork; beef; chicken; other types of meat; organs; bones; sausage; meat products; seafood; fish dishes.

C2. Eggs

C3. Milk and dairy products: milk; acid dairy products; cheese; sour cream; dairy desserts; other dairy products.

C4. Cans and semi-prepared dishes: canned meat; canned fish; canned meat and vegetables; canned vegetables; pickles; canned fruits; fruit compotes; other preserves and semi-prepared meals.

C5. Vegetables and fruits: fresh vegetables; fresh fruits; frozen vegetables; frozen fruits; dehydrated vegetables; dehydrated fruits; fresh leaves; mushrooms; other vegetables and fruits.

C6. Cereals, derived from cereals: cereals; bread; bakery products; pasta; pastry; breakfast cereals; other cereal derivatives.

C7. Honey and sugary products: honey; sugar and fruit products; chocolate; confectionery; candy and caramels; gum; halva; ice cream; other sugary products.

C8. Oils and Fats: Oil; butter; margarine; lard; vegetable whipped cream; other fats.

C9. Chips, snacks and oleaginous fruits: chips; snacks; fried corn; oleaginous fruits; others.

C10. Spices, flavorings and sweeteners: spices; dry leaves; sauces; vinegar; flavoring; sweeteners; others.

In addition to the weekly shopping cart data, we also considered the provenance of the products (the place where the products were purchased: stores, market or obtained from their own production, received, sent from parents, grandparents, etc.), the destination (which member of the family consumes that product more than 50%) and the share of green products in total purchases. All weekly purchases were reported to the operator who entered them into the Excel database (as shown in table no. 1). Each family retained their weekly shopping bills receipts or completed a shopping log, after which the operator collected all of these data at regular intervals - after each weekend, on a day set by mutual agreement with each family.

Table no. 1 Database example

Food Products Group						
Milk and Dairy Products						
Product	Quantity (Kg/ L/ Piece)	Of which green	Provenance	Of which green	Destination	Of which green
...	...		...		...	

Source: Data from this research

In the selective survey, and then, after the three months of research have been completed, the subjects were asked what kind of consumers they consider to be part of, their answers being compared, to analyze whether changes in perceptions on their own green consumption behavior. At the same time, we also aimed to identify the indirect influences of the study on the spouses' behavior and purchase behavior over the three months of collaboration.
We noticed the differences between respondents' answers before and after the actual research. If, initially, male respondents stated that only 30% of them were medium consumers, at the end of the months of the investigation, the responses changed, with 50% of the respondents becoming medium and the rest of the consumer's light. In both cases, men and women, there were no heavy consumers before, but, at the end, women who, although originally classified as average consumers at 60%, and 40% light consumers, said that 18% of them considered themselves heavy consumers after the research. Meanwhile, men remained without any heavy consumer.
We define heavy consumers as consumers with more than 50% of the volume of green products consumed (for all types of food), medium consumers with a volume of green products consumed between 20% and 50%, light or low consumers are those with a share of the volume of green food consumed less than 10% and non-consumers on those who do not eat any green food.

Table no. 2 Green purchases classified by food groups* and types of families (%)

Food Products Group	Families without children				Families with children		
	Light user	Medium user	Heavy user		Light user	Medium user	Heavy user
C1	10,5				6,6		
C2		30,9				46,6	
C3	12,5					48,2	
C4	19,3					31,4	
C5	0,8				8,1		
C6	2,8				8,8		
C7	3,6				3,2		
C8							
C9		21,9				23,6	
C10	8,9						

**The ten food groups included in the survey are numbered from C1 to C10, as mentioned before.*
Source: Data from this research

There are no big differences on the topic of the respondent's residence counties. Most differences appear between the two categories of families: with or without children (Table no. 2). It seems that the presence of children leads to increased consumption of green products. From the point of view of the source of these green food, the results are presented in the following table (Table no. 3):

Table no. 3 Source of green food consumption (%)

Food Products Group	Families without children				Families with children			
	Stores	Mar ket	Self-Product	Gift	Stores	Market	Self-Product	Gift
C1	32,1			67,9	11,9	31,7		56,4
C2				100		17,3	43,4	39,3
C3	11,7	2,18		86,3		57,7		42,3
C4			23,9	76,1			73	27
C5			50	50	22,5	35,2	21,2	21,1
C6	27,5			72,5	32,4	22,5	15,8	29,3
C7			21,6	78,4		44,4		55,6
C8								
C9	27,9			72,1		45,7		54,3
C10				100				100

Source: Data from this research

Most of the green food consumed by the families in the sample were "gifted" by parents and grandparents. It seems they constantly receive traditional food from parents and grandparents, food that cost much more, are not found or are not tasty like "just like mom makes it". On the second place, stores, especially supermarkets and hypermarkets, are among the top stores for green food, because here is a wide range of products, but at more favorable prices than green-goods stores. With respect to the amount of green food consumed by each family member, table no. 4 is presenting each food group:

Table no. 4 Destination of green products consumed (%)

Food Products Group	Families without children			Families with children			
	> 50%			> 50%			
	Husband	Wife	Family	Children	Husband	Wife	Family
C1	19,3	12,8	67,99				100
C2			100	17,9			82,1
C3		40,6	59,6	3,8		9,3	86,9
C4	18,4		81,6	34		17	49
C5	10	40	50	12,6		23,2	64,2
C6		30	70			12,2	87,8
C7			100				100
C8							
C9		32,3	67,7			47,8	52,2
C10			100				

Source: Data from this research

According to our findings, women consume more green food than men, especially when it comes to oil fruits such as nuts, peanuts, almonds, seeds; cereals; vegetables and fruits, but also milk and dairy products. Men can brag about eating green meat and fish, but also canned and cooked vegetables, fruits and vegetables.

In the process of purchasing green products, women are more prone to freshness, nutritional quality, safety, environmental protection and prevention of premature aging, as opposed to men, which are guided by the lack of pollutants, animal protection, positive self-image and identity.

By discussing the motivation to buy and consume green food, the main reasons people eat green are: physical and mental health, nature protection, spiritual satisfaction, healing diseases/diets. The hindrances to their more active green consumption are: too high a price, lack of information, low promotion, and distrust.

Regarding the attributes of green products, the subjects said they have a relatively high price, protect the environment, give some safety, taste better than normal, are healthier, fresher and give a positive self-image. Among the ways that subjects use to recognize a green product, the most used option is reading the label to see if the green leaf is the symbol of these products. Not all respondents trust the label, being reluctant to buy industrialized green products. Other options are face-to-face discussions with the manufacturer/trader and analysis. The tasting and smelling of the product are not very well agreed by the respondents, saying that these two methods are not effective in recognizing a green product.

Speaking openly, in the in-depth interview about the changes that have occurred in the green behavior of families, we learned that they were more attentive to what they had consumed as a result of participating in this research, the operator's influence being exercised, a great deal for women and to a lesser extent for men.

As with all market studies, current research cannot completely eliminate the risks. The limits of this research are:

- During the three months of research, it was not verified whether distortions in the purchasing behavior of the subjects arose because they knew they were part of a research, this verification being carried out at the end of the research;
- The short research period of only three months;
- Difficulties in collecting data (postponement of weekly meetings, repeated delays);
- The accuracy of the answers cannot be verified. Information provided by respondents may be erroneous or unscientific, resulting in untrue results;
- The intentional non-probabilistic sampling method is a subjective one, not allowing direct generalizations;
- Exploratory research has the effect of forming small, unrepresentative samples.

Conclusions

The popularity of green food is steadily rising. Supermarkets in the post-industrial world compete with each other to provide more food that was manufactured without the addition of synthetic chemicals and fertilizers.

In the context of the economic situation in Romania, being a green consumer is a luxury for a large part of the population. Considering that when buying green products and adopting green behavior, the benefits are seen in the long run, so most consumers still choose traditional products, depending on the price and the immediate benefits.

Research has shown that most of the green food consumed are not industrialized, they do not come from supermarkets, hypermarkets or specialist stores, but from their own households, parents, grandparents or are bought in the markets. Romanians do not trust the big commercial chains, but they turn to peasants, small entrepreneurs or acquaintances for green products.

Although efforts are being made to educate consumers, they still make confusions between terms that define the same concept: bio, ecological, organic. All of the eighty families surveyed called for the exact definition of the green term, which was nevertheless intended to be achieved. Interestingly, however, is the phenomenon: ignorance or vague knowledge of a concept, perhaps, known.

Differences between respondents' answers from different counties were insignificant, perhaps due to the fact that people from major cities were investigated. The most serious differences were registered between families with children and those without children, which suggests that the appearance of a child raises the awareness of the couple about the importance of a healthy diet, respectively the consequences of their own consumption.

The research can serve as a support for possible developments, with the possibility of being successfully used in the future, as a suggestion to extend the geographical area included in the study at national level or in different environments (rural/urban) to see the extent to which the results are confirmed.

As a general conclusion, it can be seen that in Romania consumers are not familiar with the notion of green consumption, which requires many improvements to the level of information of the general public, to protect the environment and to extend the life of the planet. Here comes in the interdisciplinary education, which is an extremely powerful means in the development of green orientation. The major problem is that this process will take many years to change the habits of individuals.

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