

### Consumer behaviour towards organic, natural and conventional skin care products: a pilot study

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**Abstract.** The aim of this pilot study is to outline consumers' profile in terms of their interest in organic, natural and conventional skin care, their knowledge about these products and the differences between them, their opinion regarding the performance and price of organic skin care in relation to conventional skin care. The survey used a self-administered questionnaire and was conducted on a sample of 86 customers from Cluj-Napoca, Romania. The results indicate that consumers who purchase organic skin care products are usually female, aged between 20 and 40, with an income above 2000 lei (500 €)/month and a graduate diploma. However, the study reveals most of the surveyed consumers use conventional skin care, organic products being less sought after; the main reason is their high price. Moreover, there is a lack of information on consumers' side regarding the difference between the beneficial effects of organic and conventional skin care, as they tend to believe that the two product categories are almost equally effective and beneficial to health. Consumers seem to be rather negligent regarding their own health, which is reflected in the very low frequency with which they read the list of ingredients on the packaging of the purchased skin care products. The study shows that consumers' tendency to buy more certified organic skin care with eco-friendly packaging increases along with an increase in income and not according to their educational attainment. Here again comes to the foreground the issue of consumers' lack of information and the need to develop a culture among the public that places health and environment on the first place in the decision-making process.

**Key Words:** consumer behaviour, organic, skin care.

**Introduction.** Today the market of organic products is growing at global level (Gurău & Ranchhod 2005). There is an increasing emphasis on organic products as the harmful effects of chemical substances on health have been scientifically demonstrated, a fact that influences consumers to lead a more organic life (Schifferstein & Oude Ophuis 1998; Verhoef 2005). The concern for health and beauty has increased also among Romanians, as the growing number of organic shops or green corners in more and more super and hypermarkets from all around the country shows. Experienced practitioners and specialists from the business environment share their knowledge and opinion about the development and future of the organic market. Thus, Messi Abdelaziz, the general manager of Ecocert Romania considers that the demand for organic food and cosmetics has the greatest potential in the next two to five years on the Romanian market (Bio Romania Association). It is expected that the organic cosmetic segment record the largest growth rate, presently a much smaller segment than organic food (Bio Romania Association). The general manager of Ecocert Romania says that "in a year, the cosmetic segment has grown enormously, from production to processing. It is productive because it is based on herbs and grains, which are processed in Romanian laboratories and then distributed all over the country. I find it strange. Normally, food is basic. A cosmetic product is not basic, but additional; however, I see that in Romania the efforts are more on this side" (Bio Romania Association). His opinion is shared by Radu Panait, the development director of the Radix organic line, who agrees that there is a strong upward trend on the organic cosmetic market in spite of the financial crisis, because women are more generous than men when it comes to purchasing organic cosmetics, the latter being more important for them than organic food (Bio Romania Association). The price

difference between organic and conventional is much lower for cosmetics than for food: organic cosmetics are only 10% to 20% more expensive, some even at the same price as conventional cosmetics, while organic food is 50% to 200% more expensive than conventional food (due to the lower efficiency of this type of production, lower demand etc) and in Romania organic food prices are usually 50% - 100% higher than abroad because of transport and import costs (Bio Romania Association). According to the Ministry of Agriculture and Rural Development (MARD), about only 1% of the Romanian organic production (cereals - wheat, sunflower, corn, soy, berries, honey tea and dairy products - milk, cheese, cheese, cream, butter) is consumed internally, the remaining 99% being exported to countries from Western Europe and the U.S., where it is processed (Bio Romania Association). For 2013, MARD has set the target that about 5% of the Romanian organic agricultural products should be consumed internally, but those working in industry, like Abdelaziz Messi, have less lofty expectations and limit the increase to just 2% (Bio Romania Association).

One of the biggest hindrances that limit the development of the organic sector in Romania, being it food or non-food, is the reduced consumption of these products, which derives largely from consumers' lack of information about the health benefits of such products. It is generally known among consumers that organic food comes from farming in which GMOs are prohibited and the use of synthetic pesticides and fertilizers is very limited and that it has a lesser impact on the environment (Cornelissen et al 2008; Gore 2006; European Commission). However, when it comes to biological, ecological and natural skin care or cosmetics, consumers are rather confused regarding the meaning of these terms as they are not assigned a legal definition, but are defined by certification and inspection bodies that have their own specific, sometimes differing regulations (Leonard 2010). It is very important for consumers to receive correct and comprehensive information because if people learn to read labels and avoid everything that is harmful, there will be a much higher demand for healthy products as consumers will realize the need to change their lifestyle (Bio Romania Association).

Another hindrance to the development of Romania's organic sector is the country's poverty. According to the EUROSTAT report, the poverty rate in Romania was 41% in 2010 compared to the European average of 23.4%. However, the rate decreased in 2010 compared to 2009, when it was 43.1%, but poverty is still the main reason underlying Romanian consumers' high sensitivity to price. This explains why people still consider organic food and non-food as luxury products and why this sector remains accessible for the wealthier population.

There have been many studies referring to consumers' green choices, some focusing on the influence of consumers' socio-demographic variables, health and environmental concerns on their willingness to buy organic products (Davies et al 1995; Thompson 1998; Winterich et al 2009; Grunert & Juhl 1995; Schifferstein & Oude Ophuis 1998; Dietz et al 1998; Ailawadi et al 2001; van Doorn & Verhoef 2011 etc), which show that women are more open towards the green market and more willing to pay the price premium for organic products than men (van Doorn & Verhoef 2011). Moreover, they say that younger consumers are more environmentally driven, but that the older population has more means to actually adopt a green lifestyle, the issue of financial resources coming to the foreground once again (van Doorn & Verhoef 2011). Some studies conducted in Romania emphasize the fact that consumers consider organic products more health beneficial, of superior quality, but at the same time more expensive (Teodorescu et al 2009; Petrescu et al 2013; Petrescu 2013) and that those who purchase such them are dynamic persons, equally focused on personal education, career and family, concerned with physical and mental health, who are looking towards the future and try to stay up to date with the latest trends so as to fit in society (Pagalea et al 2012). However, all these studies were done with respects to organic food, while organic skin care and cosmetics have been rather neglected. Though there are some studies analyzing this market segment (Mather et al 2005; Prothero & McDonald 1992 etc), they are not specific to the Romanian environment.

Therefore, in order to provide more information about Romanian consumers' behaviour towards organic skin care products and due to the scarcity of research in this

field, the authors decided to conduct a pilot study in Cluj-Napoca, one of the biggest cities in Romania and more up to date with the market's new trends. The study aims to outline consumers' profile in terms of their interest in organic, natural and conventional skin care, their knowledge about these products and the differences between them, their opinion regarding the performance of organic skin care in relation to conventional skin care and price. Because the sample is small – 86 respondents – the study is meant to be a starting point for further research and an addition to the already existing literature that tries to analyze consumers' behaviour with respects to the green, organic market.

**Methodology.** The data for this pilot study was obtained through a survey, using a questionnaire as research instrument. The questionnaire was handed to 86 persons from Cluj-Napoca, Romania, who were asked to fill it in on the spot. This was done in order to avoid misinterpretations and to be able to provide the respondents with further explanations should they not find the questions very clear.

The questionnaire consisted of 21 questions, both open-ended and close-ended, the latter category having a greater share in the total number of questions so as to have a higher response rate. There were various types of close-ended questions that were included in the questionnaire, such as yes/no questions, multiple choice and scaled questions, the last category including the following scales: Likert, semantic differential and rank-order. The open-ended questions were used in order to allow consumers to express their ideas and opinions freely, without being limited to a given set of possible answers.

The sequencing of questions was set in such an order that would keep alive the respondents' interest for the questionnaire. Therefore, the first questions were focused on general, basic information on the studied problem, being followed by questions requesting classification information that would help to understand the results and segment the subjects. The questionnaire ends with demographic questions. Identity information such as name, address, phone number, etc were omitted as the questionnaire was anonymous.

## Results and Discussion

### *Unidimensional Distributions*

**Sample Characteristics.** 64% of the respondents are female and 36% male. With respects to their age, 9.3% are under 20, 24.42% are in the range between 20-30 years, 23.26% between 31-40 years, 22.09% between 41-50 years, 9.30% between 51-60 years and 11.63% are over 60.

Regarding their income, 18.60% of the respondents have an income below 1000 Lei (250 €). Most of them (34.88%) earn between 1000 and 1500 Lei/month (250-375 €). 25.58% of the respondents have an income between 1501 and 2000 Lei (376-500 €), 16.28% between 2001 and 2500 Lei (501-625 €), 3.49% between 2501 and 3000 Lei (626-750 €) and only 1.16% have an average monthly income above 3000 Lei (750 €).

With respects to the respondents' educational attainment, most of them hold a graduate (48.83%) or a postgraduate diploma (26.74%), but there are also respondents who completed only secondary education like high school (16.27%) or pre-university courses (8.13%).

The great majority of the respondents are active in the labor market, working in very different areas: 13.95% in education, 5.81% in IT, 11.62% in the economic and financial area, 8.13% in administration, 13.95% in medicine, 6.97% in Engineering, and 10.46% do office work. Regarding inactive people in the labor market, they are made up of students and retirees. Their share in total sample is 16.27% and 12.79%, respectively.

Table 1

## Sample characteristics

Demographic characteristics	Frequency	Percentage of sample
<b>Gender</b>		
Female	55	64 %
Male	31	36 %
<b>Age</b>		
<20	8	9.30 %
20-30	21	24.42 %
31-40	20	23.26 %
41-50	19	22.09 %
51-60	8	9.30 %
>60	10	11.63 %
<b>Education</b>		
Gymnasium	0	0 %
Professional School	0	0 %
High School	14	16.27 %
Pre-university courses	7	8.13 %
University Graduate	42	48.83 %
Postgraduate	23	26.74 %
<b>Profession</b>		
Education	12	13.95 %
IT	5	5.81 %
Economy-Finance	10	11.62 %
Administration	7	8.13 %
Students	14	16.27 %
Medicine	12	13.95 %
Office	9	10.46 %
Engineering	6	6.97 %
Retired	11	12.79 %
<b>Income</b>		
<1000 Lei/ 250 €	16	18.60 %
1000-1500 Lei/ 250-375 €	30	34.88 %
1501-2000 Lei/ 376-500 €	22	25.58 %
2001-2500 Lei/ 501-625 €	14	16.28 %
2501-3000 Lei/ 626-750 €	3	3.49 %
> 3000 Lei/ 750 €	1	1.16 %

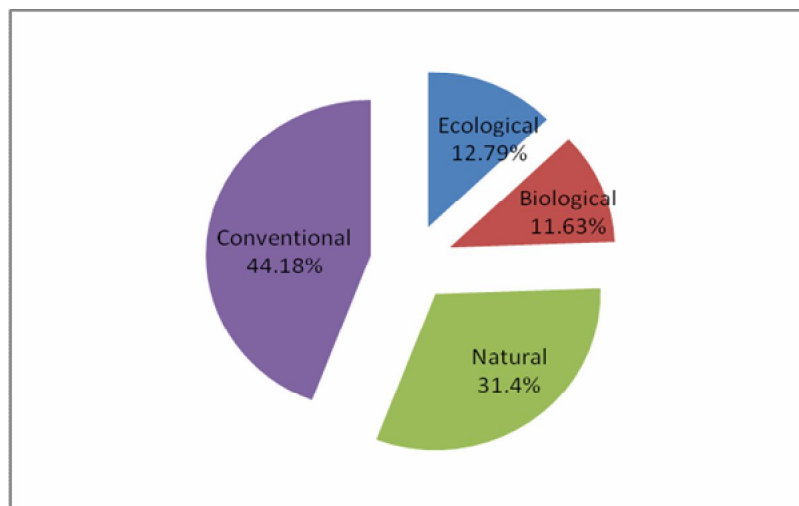
**Frequencies**

Figure 1. Types of skin care products consumers buy.

As Figure 1 shows, consumers are mostly drawn to conventional (44.18% of the total sample) and natural skin care products (31.4% of the total sample). Ecological skin care products are preferred by 12.79% of the total sample, while the biological type is preferred only by 11.63% of the respondents, which may be due to the higher prices largely reflecting a much higher percentage of organic ingredients. These categories of skin care are clearly defined by COSMEBIO, according to which ecological type is described as follows: "at least 95% natural ingredients or derived from natural sources, at least 50% of plant ingredients are produced by organic farming, at least 5% of product contents are produced by organic farming". The COSMEBIO biological label implies that: "at least 95% natural ingredients or derived from natural sources, at least 95% of plant ingredients are produced by organic farming, at least 10% of product contents are produced by organic farming". Both eco and bio labels follow Ecocert standards, which also specify that natural cosmetics have "a minimum of 50% of all plant-based ingredients in the formula" and that "a minimum of 5% of all ingredients by weight must come from organic farming".

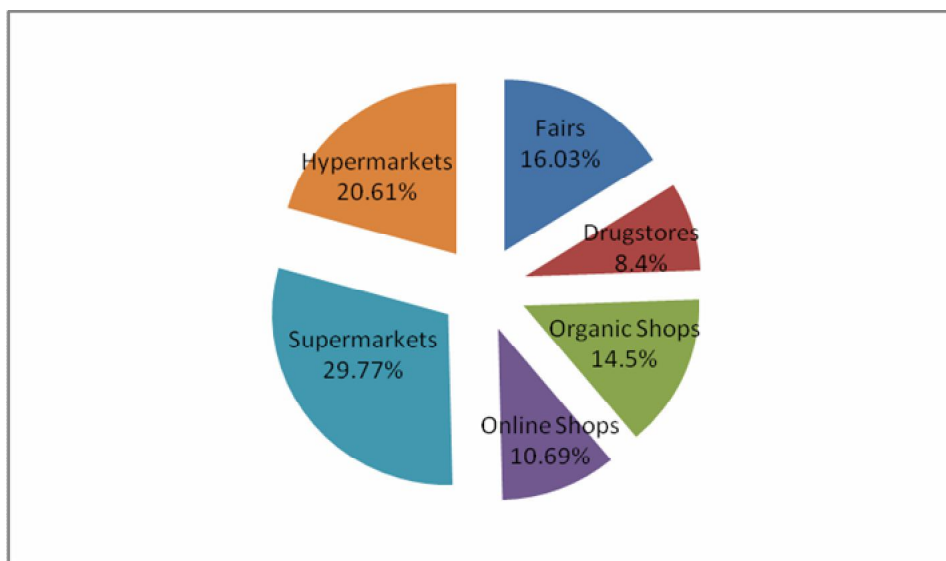


Figure 2. Places where consumers buy skin care products.

The most frequent places where consumers buy their skin care products are supermarkets (29.77% of the total sample), followed by hypermarkets (20.61%) and fairs (16.03%). Organic shops, online shops and drugstores are also preferred, but to a lesser extent (by 14.5%, 10.69% and 8.4% of the total sample, respectively).

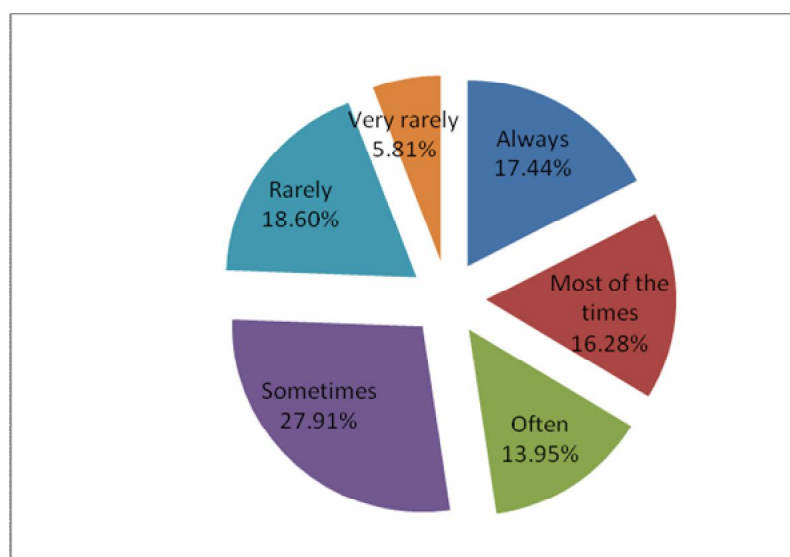


Figure 3. Frequency of reading the ingredient list of skin care products.

Asked how often they use to read the ingredients listed on the packaging of skin care products (Figure 3), most respondents (27.91%) say they use to do it only sometimes. However, there are also people who read the ingredient list only very rarely (5.81%) or rarely (18.6%), but are less in percentage than those who read it often (13.95%), most of the times (16.28%) and always (17.44%). These figures reflect a rather low level of awareness regarding the importance of ingredients of skin care products. Consumers seem to trust what products on the market promise them as long as they meet their basic needs and do not take into consideration their effects in the long run. A similar thing happens with the packaging of these products: people believe that if they are certified organic, the packaging is of lesser importance – this opinion is shared by 66.27% the respondents, who do not pay attention to this aspect and focus more on the attractiveness of the packaging, how famous the brand is, a lower price and certification. Only the remaining percent (~ 33% of the total sample) said that they would rather buy certified organic skin care with eco-friendly, biodegradable packaging.

One question of this survey asked consumers to choose from the ingredient list of a skin care product (soap, in our case) the ones they believed that could have harmful effects for health.

Table 2

List of ingredients and consumers' perceptions on their harmful effects for health

Ingredients	No. of consumers considering the ingredient harmful	% of the sample
Sodium Palmate	14	16.27
Sodium Palm Kernelate	14	16.27
Aqua	0	0
Parfum	0	0
Montmorillonite	38	44.18
Palma Acidum	26	30.23
Glycerin	0	0
Ci 77007	56	65.11
Sodium Chloride	9	10.46
Phenoxyethanol	12	13.95
Tetrasodium Edta	14	16.27
Glycine Soja Oleum	0	0
Rosmarinus Officinalis Extractum	0	0
Methylisothiazolinone	17	19.76
Methylchloroisothiazolinone	22	25.58
Tetrasodium Etidronate	14	16.27

The ingredients are listed in Table 2, which also provides insight to consumers' answers. Therefore, the ingredients believed to be the most harmful are *Ci 77007* (65.11% of the total sample pointed it as the most toxic ingredient), *Montmorillonite* (44.18% of the total sample chose it as the second most harmful ingredient) and *Palma Acidum* (30.23% of the total sample chose it as the third most harmful ingredient). It can be noticed that ingredient names identical or similar to their Romanian equivalent were correctly identified as "good" substances (except for fragrance, which, even if it is synthetic, it is not considered by respondents as harmful, although it is well known that perfume often has side effects). Instead, the terms "sodium" and "acid" seem to confuse consumers as they assume that these ingredients are of synthetic provenience when, in fact, they refer to salt, palm oil and their derivatives. Such is the case of *Palma Acidum*, which is actually palm oil. The very suspicious *Ci 77007* is actually an ultramarine colour pigment, banned for use in food, but allowed in cosmetics and skin care products. According to the *Survey of Chemical Substances in Consumer Products*, a study conducted in 2003 by the Danish Technological Institute, it has no known negative effects (Pedersen Dilani et al 2003), but information about this ingredient is very brief in order to say something unequivocal. *Montmorillonite* is defined in the Oxford Dictionary as "an aluminium-rich clay mineral of

the smectite group, containing some sodium and magnesium" and is considered non-toxic by scientists.

Table 3  
Consumers' knowledge about the meaning of eco, bio and natural skin care

Categories of skin care products	No. of consumers who defined the categories correctly	% of the total sample
Eco	36	41.86
Bio	41	47.67
Natural	45	52.32

Consequently, consumers are not very acquainted with the meaning of ingredients of skin care products and they acknowledge this in the answer to the next question: only 16.27% say that they know the meaning of the above-mentioned ingredients and of skin care products in general, while the great majority (83.73%) admit that the terms are not familiar to them. This lack of information is a major impediment to consumers' orientation towards organic skin care products. Unfortunately, this gap can also be observed in what concerns consumers' knowledge about the meaning of biological, ecological and natural skin care products. In the first question of the survey they were asked to match the terms with their corresponding definitions. The results in Table 3 show that consumers are more acquainted with natural than organic skin care products, as the former category was correctly defined by 52.32% of the total sample. The correct definitions of ecological and biological skin care products were identified only by 41.86% and 47.67%, respectively, of the total sample.

Consumers' trust in certified organic skin care products, their opinion about the relationship price-quality regarding these products and their performance compared to conventional skin care were measured by 5-point scales. The analysis shows that consumers' trust in certified organic skin care products is above average (3.93 points on a scale from 1 to 5) and that they are almost convinced that this type of products have better performance and increased health benefits than conventional skin care (4.47 points on a scale from 1 to 5). With respect to the statement that *certified organic skin care must have a higher price because this reflects their superior quality*, consumers' answers indicate a score of 2.43 on a scale from 1 (strongly disagree) to 5 (strongly agree), which means that their opinion regarding the statement is somewhere between indecision and disagreement. However, this indicates that they do not agree at all with the fact that certified organic skin care products should have high prices as they do not consider it the guarantee of high quality.

Asked how they came to know about organic skin care products, consumers chose recommendations made by friends as the most efficient advertising instrument, followed by leaflets, web pages, fairs, blogs and direct e-mail.

### ***Bidimensional Distributions***

Following the distribution of the respondents according to their age and the preferred type of skin care products, it can be noticed that organic skin care products are most often bought by people aged between 20-30 and 31-40 years and rarely purchased by persons aged between 51-60 and over 60 years. Of the 21 respondents (24.41% of the total sample) who buy organic (both eco and bio) skin care products, 33.33% are aged between 20 and 30, 28.57% between 31 and 40 and 19.04% between 41 and 50. Therefore, organic skin care products are mostly preferred by people between 20 and 40 years of age possibly due to their higher interest in their appearance and their wish to be up to date with the latest research, discoveries and solutions for maintaining their beauty and health.

By distributing respondents according to their average monthly income and the preferred type of skin care products, it appears that organic (both eco and bio) skin care products are purchased mainly by people with an income between 2001 and 2500 Lei/

501-625 € (8.13% of the total sample), while natural and conventional skin care products are most often preferred by consumers with an income between 1000 and 1500 Lei/ 250-375 € (12.79% of the total sample have an income within this range and buy natural skin care products; 16.27% the total sample have an income within this range and buy conventional skin care products). Respondents within the lowest income category (below 1000 Lei/ 250 €) usually prefer conventional skin care products (10.46% of the total sample), while respondents with the highest income (above 2501 Lei/ 626 €) purchase only organic skin care products.

Consumers' distribution according to gender and the preferred type of skin care products shows that women are drawn to organic skin care products more than men (of the 21 respondents who purchase this type of products 85.71% are women), the latter preferring conventional skin care products (61.29% of the total 31 male respondents). However, of the total of 55 female respondents, only 32.72% buy organic skin care products. The preponderance of females in purchasing organic skin care products is obvious, this being explained by their innate inclination towards beauty and health.

Consumers' distribution according to their educational attainment and the preferred type of skin care products shows that consumers with high school and post-secondary studies generally prefer conventional products (61.9% of the 21 respondents with this educational attainment – equivalent to 15.11% of the total sample - prefer conventional skin care products and only 14.28% of them –and 3.48% of the total sample - buy organic skin care products). People who purchase organic skin care products are generally those with undergraduate and graduate studies (85.71% of the total 21 respondents who purchase organic skin care products and 20.93% of the total sample). These results seem to indicate that the educational attainment has some influence on the purchase of organic skin care products, consumers with higher education purchasing a larger quantity of these products due, of course, to their degree of awareness and the nature of the information they receive. However, the existence of a relationship between these variables will be further analyzed with the Chi-squared test.

By distributing respondents according to their income and preference for eco-friendly packaging, it appears that certified organic skin care products with eco-friendly packaging are usually preferred by consumers with an income between 1500 and 2500 Lei/ 375-625 € (68.96% of the 29 respondents who prefer this type of packaging fall within this income range – this equals 12.79% of the total sample). Consumers with incomes below 1000 Lei/ 250 € do not pay attention to the packaging as long as the skin care products are certified and organic (62.5% of the 16 respondents with income within this category, which equals 11.62% of the total sample), while high-income (over 2500 Lei/ 625 €) consumers (75% of all respondents with incomes above this sum) usually opt for eco-friendly packaging (they represent 3.48% of the total sample). If the income level is high, the percentage of respondents opting for eco-friendly packaging increases considerably. For the upper income ranges (1501-2000 Lei/ 376-500 €, 2001-2500 Lei/ 501-625 €, 2501-3000 Lei/ 626-750 €, >3000 Lei/ 750 €), the proportion of respondents preferring certified organic skin care products with eco-friendly packaging is 50% or higher within each interval.

Consumers' distribution according to their educational attainment and preference for eco-friendly packaging shows that of the 42 respondents with graduate studies 40.47% (19.76% of the total sample) prefer certified organic skin care products with eco-friendly packaging, while 38.09% (18.6% of the total sample) do not pay attention to the packaging as long as the products are certified organic. Most of the respondents with secondary studies (35.71%, equivalent of 5.81% of the total sample) are drawn by certified organic skin care products with attractive packaging, while consumers with graduate and post graduate studies prefer mainly eco-friendly packaging (19.76% and 11.62%, respectively, of the total sample). Therefore, it can be inferred that consumers with higher education are more aware of the important role of eco-friendly packaging in preserving the properties of organic skin care products and the environment.

By distributing respondents according to their educational attainment and their knowledge about the ingredients listed on the label of skin care products, it can be seen that university graduates and postgraduates are most aware of the meaning of such



ingredients and they represent 71.42% of the total number of respondents who said they were acquainted to such information (and 11.62% of the total sample). Of the 21 respondents with secondary education, only 19.04% know the meaning of the skin care product ingredients (they represent 4.65% of the total sample).

Consumers' distribution according to their age and knowledge about the ingredients listed on the label of skin care products shows that of the 14 respondents who know the meaning of the ingredients, 2 are under 20 years, 7 are aged between 20 and 30 years, 2 between 31 and 40, 1 between 41 and 50, 1 between 51 and 60 and 1 over 60 years. Therefore, it can be noticed that people between 20 and 30 years are most familiar with the meaning of the ingredients listed on the packaging of skin care products, this being due to access to information - or rather to their pleasure to search the Internet and keep up with the latest trends - and their increasing awareness of the necessity of adopting a more natural and organic lifestyle with positive effects on their health.

### **Hypothesis Testing**

The 8 statistical hypotheses established for this study were the following:

**H1:** Consumers' preference for certain types of skin care products (organic, natural or conventional) is influenced by age.

**H2:** Consumers' preference for certain types of skin care products (organic, natural or conventional) is influenced by income.

**H3:** Consumers' preference for certain types of skin care products (organic, natural or conventional) is influenced by gender.

**H4:** Consumers' preference for certain types of skin care products (organic, natural or conventional) is influenced by their educational attainment.

**H5:** Consumers' interest in buying organic skin care products with eco-friendly packaging increases along with an increase in income.

**H6:** The higher their educational attainment, the more likely will consumers be to buy organic skin care products with eco-friendly packaging.

**H7:** The higher consumers' educational attainment, the better their knowledge about the meaning of the ingredient list of skin care products.

**H8:** Consumers' knowledge about the meaning of the ingredient list of skin care products increases along with age.

They were analyzed using the  $\chi^2$  test. For each case separately, we started from the null hypothesis according to which there is no relationship between the variables, we calculated  $\chi^2$  and compared it to the values in the Chi-square distribution table. We obtained the following results:

- for H1,  $\chi^2_{calculated}$  (6.6841) <  $\chi^2_{0.05;15}$  (24.996), the null hypothesis being thus accepted. With a 95% probability, there is no relationship between consumers' age and their preference for ecological, biological, natural or conventional skin care products;
- for H2,  $\chi^2_{calculated}$  (32.771) >  $\chi^2_{0.01;15}$  (30.578), the null hypothesis being thus rejected. With a 99% probability, there is a relationship between consumers' income and their preference for ecological, biological, natural or conventional skin care products;
- for H3,  $\chi^2_{calculated}$  (10.8722) >  $\chi^2_{0.02;3}$  (9.837), the null hypothesis being thus rejected. With a 98% probability, there is a relationship between consumers' gender and their preference for ecological, biological, natural or conventional skin care products;
- for H4,  $\chi^2_{calculated}$  (6.8205) <  $\chi^2_{0.05;15}$  (24.996), the null hypothesis being thus accepted. With a 95% probability, there is no relationship between the consumers' educational attainment and their preference for ecological, biological, natural or conventional skin care products;

- for H5,  $\chi^2_{calculated}$  (33.2996) >  $\chi^2_{0.05;20}$  (31.41), the null hypothesis being thus rejected. With a 95% probability, there is a relationship between consumers' income and their preference for eco-friendly packaging;
- for H6,  $\chi^2_{calculated}$  (29.9612) >  $\chi^2_{0.1;20}$  (28.412), the null hypothesis being thus rejected. With a 90% probability, there is a relationship between consumers' educational attainment and their preference for eco-friendly packaging;
- for H7,  $\chi^2_{calculated}$  (5.5811) <  $\chi^2_{0.05;5}$  (11.07), the null hypothesis being thus accepted. With a 95% probability, there is no relationship between consumers' educational attainment and whether they are aware or not of the meaning of the ingredients listed on the label of skin care products;
- for H8,  $\chi^2_{calculated}$  (7.5696) <  $\chi^2_{0.05;5}$  (11.07), the null hypothesis being thus accepted. With a 95% probability, there is no relationship between consumers' age and whether they are aware or not of the meaning of the ingredients listed on the label of skin care products.

Table 3

## Hypothesis summary

Hypotheses	Results
H1: Consumers' preference for certain types of skin care products (organic, natural or conventional) is influenced by age.	Not supported at 5% level.
H2: Consumers' preference for certain types of skin care products (organic, natural or conventional) is influenced by income.	Significant at 1% level.
H3: Consumers' preference for certain types of skin care products (organic, natural or conventional) is influenced by gender.	Significant at 2% level.
H4: Consumers' preference for certain types of skin care products (organic, natural or conventional) is influenced by their educational attainment.	Not supported at 5% level.
H5: Consumers' interest in buying organic skin care products with eco-friendly packaging increases along with an increase in income.	Significant at 5% level.
H6: The higher their educational attainment, the more likely will consumers be to buy organic skin care products with eco-friendly packaging.	Significant only at 10% level.
H7: The higher consumers' educational attainment, the better their knowledge about the meaning of the ingredient list of skin care products.	Not supported at 5% level.
H8: Consumers' knowledge about the meaning of the ingredient list of skin care products increases along with age.	Not supported at 5% level.

The above analysis shows that consumers buy certain types of skin care products, like organic, natural or conventional, according to their income and gender. Consequently, organic skin care products are purchased especially by female consumers with higher income. Income is also an important factor when consumers decide over the type of packaging: again, the higher the income, the more likely will consumers be to opt for eco-friendly packaging. Age and educational attainment do not influence consumers' decision-making process with respect to buying organic, natural or conventional skin care products and their knowledge about the meaning of the ingredients listed on the label of such products. As H6 is significant only at 10% level, further studies, with a larger sample should be conducted to test the influence of consumers' educational attainment on their preference for organic skin care products with eco-friendly packaging.

**Conclusions.** The aim of this study is to outline consumers' profile in terms of their interest in organic, natural and conventional skin care, their knowledge about these products and the differences between them, their opinion regarding the performance of organic skin care in relation to conventional skin care and price.

The study shows that consumers who purchase organic skin care products are usually female, aged between 20 and 40, with an income above 2000 Lei (500 €), who completed tertiary education at graduate level.

However, most surveyed consumers use conventional skin care (44.19%), but interest in natural products tends to increase more and more (31.40% of the respondents are currently using them). Bio and eco products are less sought after and the most important reason is their high price - price is still the main driver for consumers when choosing one type of product over another - for 28.57% of the respondents, price is the factor with the greatest influence on their decision-making process. There is a gap in consumers' knowledge which is emphasized by their not being able to correctly define the terms biological and ecological skin care - not even half of the respondents could assign the correct definition to these type of products - as well as by their failure to identify the synthetic and possibly harmful ingredients listed on the package of a skin care product - 83.73% of the respondents admitted they did not know the meaning and/or the side effects of the ingredients they considered suspicious. In addition, there is great negligence among consumers regarding their own health, which is reflected in the very low frequency with which they read the list of ingredients on the packaging of the purchased skin care products: 27.91% - i.e. most of the surveyed consumers - confessed that they tend to read the ingredient list only sometimes. This is greatly due to the fact that they would not understand its meaning even if they read it. One would be tempted to say that lack of knowledge is due to consumers' educational attainment or age, but the analysis explicitly shows that at 95% level there is no relationship between these variables. Information gathering can be done by anyone, the only condition is to be aware of the need to be informed and the desire to live a healthier life. Consequently, there is need for a public information campaign regarding organic products, their effects on health, on the environment and on local economy. Consumers should be impelled to rank their preferences according to a product's ingredient list, certifications, eco-friendly packaging, country of origin, etc and not to its colour, flavor, publicity, renowned brand name, etc. Such a process involves, of course, a change and reorientation in lifestyle, giving up conventional skin care - and not only - and substituting them with products made exclusively with organic vegetable ingredients, following traditional recipes and using clean, less energy intensive technologies, which have minimal effects on the environment. Furthermore, consumers should focus more on buying skin care products with biodegradable packaging, made of recycled, natural materials that keep the products' properties intact. The study shows that consumers' preference for certain types of packaging is divided: they seem to prefer to an equal extent (~33%) certified organic skin care with biodegradable packaging (natural paper and cardboard, ceramic, wood, etc) and certified organic skin care with packaging of any kind, a parity that should be influenced in favour of the former. The study also shows that consumers' tendency to buy more certified organic skin care with eco-friendly packaging increases along with an increase in income and not according to their educational attainment. Here again comes to the foreground the issue of consumers receiving more information and the need to develop among the public a culture that places health and environment on the first place in the decision-making process.

Being a pilot study, this paper has its limitations with respects to generalization and the depth of the analyzed issues. Its objective is to be a starting point for further research and to cast light on important aspects related to the consumption of organic skin care products in Romania, as there is little if any research in the field. For more significant results, further studies should consider a larger sample, representative at national level, if possible, and try to provide more insight into questions such as Romanian consumers' willingness to pay the price premium of certified organic skin care and eco-friendly packaging and the factors underlying it, consumers' ethicality and perceived ethicality of organic skin care, consumers' lifestyle and attitude towards

organic skin care, the gap between consumers' attitude and decision-making process of purchasing organic skin care, the gap between consumer's values and attitudes towards making organic choices, the influence of national culture or of corporate social activities on consumers' organic purchases, etc.

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