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APPEARANCE OF NATURAL COSMETICS IN CONSUMER BEHAVIOR RELATED TO COSMETICS IN HUNGARY

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The aim of this study is to determine what variables influence consumer purchase intentions regarding preferences for natural cosmetics. Data were collected via an online survey from 197 people completed in April-May 2018 in Hungary. The research used a non-parametric test – the Wilcoxon test. Analyses have shown that gender and consumers' willingness to purchase natural products influence consumers' willingness to purchase. Environmentally and health-conscious consumer behavior also influences their purchasing intentions for natural cosmetics. Consumer interest in environmental and health issues is growing today, providing a huge opportunity for the natural and organic cosmetics (N&O Cs) industry to develop a strategy that would encourage many consumers to buy organic or natural body care products. The results may also be useful for marketers, online sellers and professionals in identifying and better understanding new trends in natural cosmetics production.

Keywords: consumer, natural, cosmetics, behavior, intention

Introduction

The aim of this study is to determine what factors influence the intention to buy natural cosmetics. Several variables are included, such as: gender, natural vs. chemical ingredients, packaging, and price in order to understand the reasons that may increase the willingness to buy natural cosmetics. Natural cosmetics are cosmetic products with a completely or partially natural active ingredient and/or packaging material (Fung et al., 2018; Kardos et al., 2019). The market for "green" products is expanding widely in many industries such as: the fashion, food, and cosmetics industries (Cervellon and Carey, 2011; Eixarch et al., 2019). In the past, chemicals were used in the manufacture and widespread distribution of cosmetics to replace natural ingredients. Today, the development of a healthier and more environmentally conscious lifestyle is increasing consumer perceptions and interest in natural products in particular, including cosmetics. According to some studies, the most important motivating factors for consumers in Bulgaria, Montenegro, and Italy in relation to cosmetics are natural flavors, good quality, hydration, skin protection, medical advice, persistently good promotion, hypoallergenicity, and not conducting animal experiments. Natural cosmetics are usually purchased by people who lead an environmentally conscious lifestyle and care about their health, beauty and appearance (Kardos et al., 2019).

There is little research on consumer behavior in relation to natural cosmetics and consumer purchasing decisions, attitudes towards natural body care and cosmetics. However, the growing popularity of natural cosmetics raises significant questions for marketers, retailers and industrial designers (Bubalo et al., 2018; Halla et al., 2018; Li et al., 2019). The number of studies on natural cosmetics has increased significantly compared to previous years (Cervellon et al., 2011; Rybowska, 2014; Cinelli et al., 2019).

"Green" shopping is a kind of environmentally conscious behavior by which consumers express concern for their environment. There are three main types of consumers: the health-conscious consumer who buys for his or her own health benefits; the environmentalist, who is committed to environmental protection; and quality product hunter who recognizes that "green" products taste excellent or are excellent (Cervellon et al., 2011; Nguyen et al., 2019). Statista (2019) highlights the huge discrepancy between the actual purchase of "green" products and the intention to purchase them – higher prices due to the trade-off in benefits. Critical factors in the intention to purchase characterize consumer behavior regardless of product category selection. The intention to buy "green" can best be formulated in such a way that a person is most likely willing to prefer products with eco-friendly properties over traditional products (Beri, 2018; Guerra et al., 2018).

Many studies have shown that demographic factors are the most important factors in forecasts of consumer behavior for natural products (Campa and Baron, 2018; Statista, 2019). The demographic variables such as gender showed a significant association with ecologically conscious behavior. The results are also contradictory in terms of gender differences. They found that female consumers are much more ecologically conscious than male ones. Gender differences also appear in the youngest population group and in the intercultural environment. Women are more likely to buy a "green" product because they believe the "green" product is better for the environment (Chin et al., 2018; Lin et al., 2018). Pillai (2013) argued that the role of gender is of great importance for someone to be an environmentally conscious consumer. Numerous studies have shown that women are more concerned about "green" problems than men and are more likely to be environmentally conscious shoppers (Pillai, 2013; Lin et. al., 2018).

Health-conscious consumers do a lot for proper physical and mental well-being and also try to live a healthy life (Panda and Manickam, 2019). Truly health-conscious consumers strive to engage in activities that enable health to live a life (Kim and Chung, 2011). Kim and Chung (2011) found that health awareness only partially affected the intention to buy products made from natural ingredients.

In connection with the purchase of skin/hair care products, consumers with a high level of health awareness usually consider whether the product is safe for the skin and body; therefore, the ingredients used to produce the product are treated more intensively than consumers with a low level of health awareness (Cinelli et al., 2019). However, Kim and Chung (2011) showed that health awareness does not influence consumers' behavioral patterns when purchasing beauty products. Lin et al. (2018) examined the behavioral patterns of female consumers when purchasing beauty products, the perceived importance of product properties, and the attitudes toward buying natural beauty products. The results show that consumers' attitudes towards products and purchasing behavior are influenced by health and environmental awareness. People who are committed to creating

and maintaining a youthful appearance are usually looking for chemical-free body care products.

If the consumer trusts a particular beauty product that is even comfortable for them, switching to a new product often requires additional incentives (González-Minero and Bravo-Díaz, 2018; Lin et al., 2018). The health awareness is the least important motive for the intent to consume natural products because these products are seen as promoting a healthy lifestyle. There are many similarities between preferring organic products and natural body care products (Tungmunnithum, 2019).

The Croatian consumers do not trust the eco-products placed on the market. As consumers become increasingly concerned about health and environmental problems, more and more attention has been paid to the purchase and consumption of natural cosmetics (Matić and Puh, 2016; Gubitosa et al., 2019).

Material and methods

Data were collected via an online questionnaire in Hungary. The purchasing sample obtained in this way was used to simplify and shorten the time of collecting data for analyses. The empirical survey was conducted from April 20 to May 14, 2018. This research is part of a complete research that continued between 2017 and 2022 and achieved similar results, the result chain and framework was already presented in author´s dissertation (2022) and in several publications (for example, Amberg and Fogarassy, 2019). This section between 2018 and 2019, however, is only being published now, given its special methodology and results. The questionnaire consists of two parts. Question 7 in the first part contained statements on a Likert scale, where respondents were given the opportunity to express their degree of agreement (1 – strongly disagree, 5 – strongly agree) with the intention to purchase natural cosmetics and the statement (eg "Natural cosmetics") and dichotomous (yes/no) answers. The second part of the questionnaire contains the demographic variables of the respondents (gender and age). The sample includes 197 respondents who were willing to fill in the questionnaire, so they make up the purchasing sample in Hungary, in which 34% are men and 66% are women. In terms of age groups, 17% of respondents are 18–24, 28% are 25–34, 23% are 35–44, 22% are 45–54, and 11% are over 55. The research shows that 70% of respondents want to buy natural cosmetics and 56% (strongly agree, agree categories) intend to buy new natural cosmetics brands that are emerging. 78% of respondents (strongly agree, agree) tend towards a health-conscious lifestyle, and 68% (strongly agree, agree) buy organic food. The decision of 86% of the respondents (strongly agree, agree) is influenced by environmental awareness. 70% of respondents are willing to pay more for a cosmetic with a natural ingredient and 68% for a cosmetic with a natural packaging (definitely agree, agree). Regarding the effectiveness of a given cosmetic, 57% of the respondents (strongly agree, agree) choose a less effective natural cosmetic compared to a normal cosmetic.

The method used in the research is the Wilcoxon test. Based on the scientific problems and the research goals, the following hypotheses were formulated:

- H1 Women are more likely to buy natural cosmetics than men.
- H2 Consumers buying cosmetics are increasingly opting for non-chemical (natural) cosmetics, even if they are more expensive than chemical cosmetics.

The Wilcoxon non-parametric test was used to examine the choice between natural ingredients and natural packaging materials and the effectiveness of chemical and natural cosmetics based on consumer decision making (H1, H2).

The question is to what extent the selected variables explain the consumer's openness to buy natural cosmetics: the role of gender in the decision, the purchase of fewer chemical cosmetics, even more effective than natural variants, health awareness, natural ingredients, and packaging materials, and an environmentally conscious lifestyle.

Results and discussion

According to Table 1, the choice of cosmetics with a natural ingredient over natural packaging is true for 22 people, and vice versa for 12 people, the two attitudes being the same in most cases (for 162 people).

The result of the test is not significant (Table 2), i.e. the decision of the respondents regarding the choice of cosmetics with natural ingredients and cosmetics with natural packaging material is the same, because $p > 0.05$. A technical explanation may be that manufacturers are increasingly trying to package natural cosmetics with natural packaging.

With regard to chemical and natural cosmetics, it was even examined the effectiveness of these cosmetics. In 122 cases, the choice of cosmetics with a natural ingredient is more preferred than that of chemical cosmetics (94.25 Mean Rank), so the role of the attitude related to the choice of natural cosmetics is highlighted. In 40 cases, chemical cosmetics are preferred over "less effective" natural cosmetics (42.60 Mean Rank), so the attitude towards choosing chemical cosmetics is stronger, and in 34 cases both are equally preferred, i.e. the same attitude towards their choice (Table 3).

Table 1 Ranks

Examined factors and ranks		N	Mean Rank	Sum of Ranks
Natural packaging – natural ingredients	negative ranks	22[a]	17.93	394.50
	positive ranks	12[b]	16.71	200.50
	ties	162[c]		
	total	196		

Source: Based on own primer research in SPSS Statistics 25 (2018–2019)
a – natural packaging <natural ingredients; b – natural packaging >natural ingredients; c – natural packaging = natural ingredients

Table 2 Test statistics[b]

Natural packaging – natural ingredients	
Z	-1.735[a]
Asymp. sig. (2-tailed)	0.083

Source: Based on own primer research in SPSS Statistics 25 (2018–2019)
a – based on positive ranks; b – Wilcoxon signed ranks test

Table 3 Ranks

Examined factors and ranks		N	Mean rank	Sum of ranks
Less effective natural cosmetics – natural ingredients	negative ranks	122[a]	94.25	11,499.00
	positive ranks	40[b]	42.60	1,704.00
	ties	34[c]		
	total	196		

Source: Based on own primer research in SPSS Statistics 25 (2018–2019)
a – less effective natural cosmetics <natural ingredients; b – less effective natural cosmetics >natural ingredients; c – less effective natural cosmetics – natural ingredients

Table 4 Test statistics[b]

Less effective natural cosmetics – natural ingredients	
Z	-8.324[a]
Asymp. sig. (2-tailed)	0.000

Source: Based on own primer research in SPSS Statistics 25 (2018–2019)
a – based on positive ranks; b – Wilcoxon signed ranks test

Table 5 Cohen's effect size

z value	n	ROOT (n)	IzI/ROOT (n)
8.32	196	14.00	0.59

Source: Based on own primer research in SPSS Statistics 25 (2018–2019)

The result of the test is strongly significant, i.e. the respondents' decision regarding the choice of natural cosmetics and less effective natural cosmetics is different compared to chemical cosmetics, because p <0.01, so H0 must be discarded (Table 4).

In each case, the value of the magnitude of the effect is above 0.5, i.e. the magnitude of the effect is medium, so there is indeed a difference, which is also confirmed by the magnitude of the effect (Table 5).

The results of the Wilcoxon test thus show that the choice of cosmetics with natural ingredients over natural packaging is true for 22 people, and vice versa for 12 people, the two attitudes being the same in most cases (162 people). The result of the test is not significant, i.e. the respondents' decision regarding the choice of cosmetics with natural ingredients and cosmetics with natural packaging is the same, because p >0.05. A technical explanation may be that manufacturers are increasingly trying to package natural cosmetics with natural packaging. Cohen's effect size in each case the value of the effect size is above 0.5, that is, the effect size is medium, so there is indeed a difference, it was also confirmed by the effect size. H1 and H2 proved to be true.

The results of the Wilcoxon test supported the study literature, i.e. manufacturers are increasingly trying to package natural cosmetics with natural packaging, and the choice of natural cosmetics has proven to be more preferable than chemical cosmetics.

In 2015, consumer behavior regarding natural and organic cosmetics was investigated in Europe among European women aged 25–65 who buy cosmetics and are also interested in N&O Cs.

The majority of surveyed N&O C consumers prefer natural and organic cosmetics because they want to avoid personal risks. Regarding the product ingredients, 80% expect natural, 64% organic 38 ingredient content, especially in the case of non-rinse products.

Based on the survey, 3 consumer subgroups were identified, which are the risk avoiders who want to avoid the purchase and use of harmful cosmetic product ingredients;

The one who focuses on the external focus, who does not want to cause negative effects for others (animals, planets, other people); and "Part of who I am". In the case of the latter, it is a necessity for the members of this group that cosmetics should fit into their healthy and natural lifestyle (Natrue, 2015).

In 2016, Statista's Research Department conducted an online survey of female respondents aged 25–65 who buy cosmetics and are interested in organic and natural cosmetics. Based on the survey, almost 80% of surveyed women believed that it was important that the purchased product contained only natural ingredients (Statista, 2019).

Conclusions

Over time, our environment has become globally polluted, the main causes of which are the harmful effects of human activities, for which we are individually affected, and which also have an impact on our health. Manufacturers of large, international cosmetics have already embarked on the "green" path. In the interest of sustainable development, they are trying to expand their international market with natural and organic materials, work processes and technologies, setting an example for smaller companies. The consumer mindset has also changed significantly as consumers strive to live healthier, more environmentally conscious reasons, which is why they are increasingly choosing natural cosmetics over cosmetics that contain chemicals.

It can also be concluded that the results of Wilcoxon's non-parametric analysis is consistent with the literature background for all variables. There are consumers who are distrustful of natural cosmetics which can be traced back to a lack of market regulation because the cosmetics market is still an underrepresented area. Companies should provide clearer information on what natural ingredients their products contain and what types of health benefits consumers can gain from them by using organic body and beauty products.

Consumer interest in health and environmental issues is growing, providing a huge opportunity for the natural and organic cosmetics industry to develop a strategy that would encourage many consumers to buy organic or natural body care products.

Therefore, this study contributed to the existing knowledge of the natural products industry by indicating variables that influence consumers' willingness to buy natural cosmetics, which was conducted in a very specific market for natural cosmetics. According to the findings of the study, the natural cosmetics industry needs to be stronger and more efficient in the Hungarian market because Hungarian consumers show a positive attitude towards natural cosmetic products.

Cosmetic companies also need to focus on the health benefits of cosmetics and beauty products and create effective strategic tools that can bring clear benefits to new markets such as the natural cosmetics market. Such specifically oriented marketing strategies provide business success and efficiency, as well as meet the need to understand and predict consumer behavior regarding natural cosmetic products in Hungary. Given the limited purchasing behavior

of Hungarian consumers in relation to natural cosmetic products, a new perspective is needed for further analysis of the topic. This requires further research in the field, but this study may also be useful in interpreting consumer behavior in relation to natural cosmetic products, providing a framework for further research on the topic (Matić and Puh, 2016).

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