

Received: July 2023
Accepted: March 2024
DOI: 10.7862/rz.2024.hss.05

Natalia KOZIK¹
Agnieszka CHOLEWA-WÓJCIK²
Małgorzata JAROSSOVÁ³

CONSUMERS' OPINIONS ON THE USEFULNESS, UNDERSTANDABILITY, AND RELIABILITY OF PRODUCT CLAIMS ON NATURAL COSMETICS PACKAGING

Packaging and its integral elements can be among the carriers of product claims, which often encourage consumers to purchase cosmetics, and many make purchasing decisions based on them. There is, therefore, a tendency to put an increasing number of claims on packaging; these, according to requirements, should be useful, understandable, and reliable. This article aims to determine the importance of information placed on packaging during the purchase of natural cosmetics in comparison with other packaging elements, and to assess the usefulness, understandability, and reliability of selected groups of product claims placed on natural cosmetics packaging. The results confirm that the information placed on the packaging of natural cosmetics is an important element to which consumers pay attention. The most useful, understandable, and reliable claims are performance claims, ingredient-related claims, and environmental claims.

Keywords: product claims, natural cosmetics packaging, labelling.

1. INTRODUCTION

Nowadays, cosmetics are treated as necessities and the beauty industry is one of the fast-growing industries, estimated by Statista (2019) to be worth USD 545 billion in 2027. One of the leading trends in the industry at the moment is natural products, which are estimated to have an annual market growth rate of around 9.6% (Market Research Future, 2019). According to Mintel (2020), between 2020 and 2030, consumers will expect so-called 'clean cosmetics', not only in terms of their composition, but also in terms of their environmental and social impact throughout the product life cycle. Additionally, according to the Organic Trade Association (2021), the current strengthening of the natural cosmetics

¹ Natalia Kozik, Cracow University of Economics, Poland; e-mail: natalia.kozik@uek.krakow.pl (corresponding author). ORCID: 0000-0001-6787-2573.

² Agnieszka Cholewa-Wójcik, Cracow University of Economics, Poland; e-mail: cholewaa@uek.krakow.pl. ORCID: 0000-0001-5081-1416.

³ Małgorzata A. Jarossová, Ekonomická Univerzita v Bratislave, Slovakia; e-mail: malgorzata.jarossova@euba.sk. ORCID: 0000-0003-2006-8339.

trend has been influenced by, among other things, the pandemic and the increased interest in environmentally and health-friendly solutions.

Natural cosmetics belong to a group of products that, in most cases, in order to become marketable, require packaging that is a key element of the marketing communication system, considered as a sign system. They are a channel of communication that carries coded information about the product. They play an important role during the consumer's purchasing decision. This also applies to natural cosmetics, on the packaging of which, in addition to obligatory signs, manufacturers like to place various claims suggesting, for example, the composition, functions and advantages of the products. These claims often encourage consumers to purchase the cosmetic product in question. For this reason, it was decided to investigate the opinion of consumers of natural cosmetics on the claims made on the packaging of these products, and the aim of this article is to determine the relevance of the information and to assess the usefulness, understandability and reliability of selected groups of product claims made on the packaging of natural cosmetics.

2. COMMUNICATION FUNCTION OF COSMETIC PACKAGING

Packaging is regarded as an integral part of a cosmetic product, which performs the functions assigned to it. Their primary role is to protect and secure the product. However, in addition to their protective function, packaging has a communicative function, being a carrier of information, including product claims. Furthermore, they create an appropriate brand image. Of the many tools that interact at the point of sale, packaging is the most important. For this reason, many manufacturers note the increasing importance of packaging in the market communication process and see it as a tool for creating a unique positioning and acquiring a competitive advantage (Przewoźna-Skowrońska, Dewicka, 2016; Rebollar et al., 2017; Purwaningsih et al., 2019). This is also the case for natural cosmetics. According to Bellomo (2021), the packaging of a cosmetic product, including a natural one, performs a number of different functions, including protecting the cosmetic from contaminants and external conditions, facilitating the application of the product, as well as by its appearance influencing attention to the product and enabling communication with the consumer. Also, Nerwerli-Guz (2011) emphasized the multifaceted role of cosmetic packaging, which, in addition to its protective function, now has an informative and marketing function. Also, Shimul et al. (2022) pointed out the important role of the labelling of organic cosmetics in a company's marketing activities. Kappogiani (2011) and Wiwatanaputit (2018), on the other hand, proved that packaging and the labelling on it is an important element affecting the effectiveness of a natural cosmetic's marketing strategy, and The Benchmarking Company (2008) indicated that the majority of women who purchase natural cosmetics read labels carefully before buying them. In addition, the Naturativ (2018) brand proved that consumers who purchase natural cosmetics pay attention to more information than those who do not regularly purchase these products.

Packaging is therefore a tool often used to inform consumers about the properties of a cosmetic product, including its natural character. This is especially the case for unitary packaging, whose purpose is to deliver the product to the final consumer. They are often the only way to communicate relevant information about the product itself, which helps consumers to make informed decisions. They are one of the primary sources of product information on which mandatory labelling is carried out, i.e., without which the packaged cosmetic product will not be placed on the market. In addition to the mandatory labelling required by law, manufacturers often include additional information of a promotional,

educational, informative nature. This is voluntary information, the inclusion of which on the packaging is not mandatory but depends solely on the manufacturer and his policy. Their purpose is to create a certain image of the product or brand. Only some of them are legally regulated, e.g., as to presentation, form, and conditions to be met in order to label a product in a certain way. However, all optional information must be truthful and not mislead consumers. One of the voluntary statements on cosmetic packaging are product claims.

3. PRODUCT CLAIMS AS A TOOL FOR CONSUMER COMMUNICATION

Product claims are understood to be statements in the form of text, names, trademarks, images and other symbols, which serve to inform the consumer about the characteristics and features of the products. They may take the form of certificates granted by external bodies upon fulfilment of their requirements, but they may also be claims made by the manufacturer. They are the primary means of differentiating cosmetics and relate to their function, composition, and performance. They serve to inform at the labelling, sales and advertising stage of cosmetics (Commission Regulation (EU) No 655/2013; Regulation (EC) No 1223/2009 of the European Parliament and of the Council).

According to Cosmetics Europe (2019), 8 most common groups of claims can be distinguished:

- ingredient-related claims, which relate to the ingredients in the product, their properties and mode of action, e.g., “90% ingredients of natural origin”, “contains mango extract”,
- performance claims, which are claims about the product's function, e.g., moisturizing, wrinkle reduction, whitening, etc.,
- comparative claims relating to the indication of the effects after use of the product or comparing the cosmetic to similar products, e.g., “after 2 weeks of use, the skin is firmer”,
- sensory claims that relate to the sensory attributes of the product, e.g., “gentle, foaming formula”,
- consumer perception claims relating to the subjective perception of a product's sensory and performance attributes and attractiveness, e.g., “100% of respondents confirmed significant improvement in stretch marks and scars after 8 weeks of product use”,
- claims related to life-style choices, personal values and beliefs, that enable consumers to choose a product according to their values, e.g., “vegan product”, “kosher product”,
- environmental claims relating to the product's environmental performance, e.g., “contains no microplastics”,
- hyperbolic/puffery claims, which should not be taken literally and which are metaphorical and hyperbolic, e.g., “the smell of the gel will transport you to a freshly mown meadow”.

Regardless of the type, it is mandatory for product claims to comply with the requirements of Commission Regulation (EU) No 655/2013 of 10 July 2013 establishing common criteria for the substantiation of claims made in relation to cosmetics. This regulation is in line with other horizontal legislation on the issue of ethical communication of, inter alia, cosmetic products and marketing claims on their packaging, i.e. the Unfair Commercial Practices Directive (UCPD), which aims to protect consumers and their

economic interests, and the Misleading and Comparative Advertising Directive (MCAD), which aims to protect traders against unfair commercial practices in the form of advertising. The requirements set out therein include: legal compliance, truthfulness, evidential support, honesty, fairness, and informed decision-making.

However, Commission Regulation (EU) No 655/2013 does not specify what declarations can be made on, i.a. the packaging of natural cosmetics, but indicates that when providing information to consumers, a so-called 'flexible approach' should be adopted and the specifics of the market in question, especially social, linguistic and cultural aspects, should be considered. This is intended to increase the level of innovation as well as the competitiveness of the cosmetic industry. Furthermore, according to the Regulation, product claims must be useful, understandable and reliable and enable consumers to make informed decisions and choose products that meet their needs and expectations.

These claims are an excellent marketing tool and can increase a company's competitiveness, which is why there is a trend to include more and more claims on the packaging of new products (Cousté et al., 2012; Ankiel-Homa et al., 2014). As pointed out by Kozik (2022), on average there are several claims on the packaging of a natural cosmetic, which have different forms: short and concise slogans, elaborate messages or graphic symbols. These range from information whose inclusion is the manufacturer's idea to certifications granted by external bodies. However, some researchers have pointed out that manufacturers commit abuses by including claims on natural cosmetics packaging that serve only marketing purposes and not the actual description of product properties (Konopacka-Brud, 2010; Póltorak, 2013; Lixandru, 2017; Pawlik et al., 2017; Soil Association, 2017; The Derm Review, 2021). It is also common practice to include unsupported statements that omit information to assess their accuracy. Less common are vague statements that contain general assertions that make it impossible to clearly assess their correctness and false statements that are made-up and do not correspond to reality (Kozik, 2022). Kuituen (2021), on the other hand, found that, according to consumers, product packaging lacks valuable information, which causes frustration among them.

The multiplicity of claims, the lack of clarified requirements and the inadequacies present in the industry are causing confusion among consumers, a decrease in their trust, as well as their satisfaction with the information provided by the various natural cosmetics packaging. Therefore, it was decided to assess which groups of claims on natural cosmetics packaging are useful, understandable and credible in the opinion of consumers of these products. The definition of usefulness is: the extent to which the information, its scope and presentation can influence the decision of the person receiving the message and is used by him/her for his/her own purposes. The definition of understandability, on the other hand, is the one developed by Lisińska-Kuśnierz (2014), according to which information comprehensibility is 'the degree to which the physical appearance of information determines the ordering, consistency and reception of the meaning of the message as intended by the sender by the general public'. Credibility, on contrast, has been defined as the degree to which the information, its presentation and/or its source are considered trustworthy on a given issue by the person receiving the message.

4. RESEARCH METHODOLOGY

The aim of the study was to examine the opinions of consumers of natural cosmetics on the claims made on the packaging of these products. The scope of the study was to determine the validity of the information placed on packaging when purchasing natural cosmetics in comparison to other packaging elements and to assess the usefulness, understandability and reliability of selected groups of product claims placed on natural cosmetics packaging. The groups of claims were selected based on the division proposed by Cosmetics Europe (2019).

Conducted research was carried out in a quantitative manner. A CAWI survey method was used. The research tool was an electronic survey questionnaire consisting of two parts.

The first part contained 5 questions, of which 1 was a filter question allowing the selection of people who use natural cosmetics to answer subsequent questions. The substantive part used closed questions, i.e. with predetermined answers, among which were:

- alternative questions, i.e., allowing the respondent to indicate one of two mutually exclusive answers,
- scale questions, allowing one to find out the degree or intensity of the respondents' attitudes and assessments towards the phenomenon under investigation,
- conjunctive questions, i.e., questions to which the respondent can indicate at least two of the given answer options (Mazurek-Łopacińska, 2016).

Respondents were introduced to the definitions of usefulness, comprehensibility and reliability before answering the questions.

On the other hand, the second part – the classifying part – consisted of 6 questions, which had a closed form and concerned: gender, age, education, professional situation, place of residence, assessment of income situation monthly. The cafeteria for the metric questions was created based on, among others, the statistical yearbooks of the Central Statistical Office of Poland.

The data obtained in the study were subjected to statistical analysis. The analysis of quantitative variables (i.e., expressed as numbers) was performed by calculating the mean, standard deviation, median and quartiles. The analysis of qualitative variables (i.e., not expressed by number) was performed by calculating the number and percentage of occurrences of each value. The analysis was performed in R software, version 4.3.0.

The survey was conducted in 2022 among 621 respondents of whom 121 were not consumers of natural cosmetics. Therefore, the responses of a purposively selected sample of 500 respondents who purchased natural cosmetics were analyzed.

The characteristics of the group of subjects taking part in the survey are shown in Table 1.

Table 1. Characteristics of the surveyed consumer

Characteristics		Users of natural cosmetics (n=500)		Non-users of natural cosmetics (n=121)	
		n	%	n	%
gender	female	361	72.2	64	52.9
	male	139	27.8	57	47.1
age	≤24	38	7.6	4	3.3
	25–34	138	27.6	26	21.5
	35–44	89	17.8	23	19.0
	45–54	110	22.0	29	24.0
	≥55	125	25.0	39	32.2
education level	primary school	9	1.8	2	1.6
	lower secondary school	8	1.6	1	0.8
	basic vocational school	54	10.8	23	19.0
	secondary school	164	32.8	48	39.7
	post-secondary school	53	10.6	7	5.8
	college and above	212	42.4	40	33.1
employment situation	student	24	4.8	0	0.0
	employed	358	71.6	68	56.2
	unemployed	15	3.0	10	8.3
	retiree/pensioner	71	14.2	36	29.7
	housekeeper	32	6.4	7	5.8
place of residence	village	94	18.8	38	31.4
	city with less than 20,000 inhabitants	55	11.0	14	11.6
	city of between 20,000 and 50,000 inhabitants	76	15.2	15	12.4
	city of between 50,000 and 100,000 inhabitants	68	13.6	11	9.1
	city of between 100,000 and 500,000 inhabitants	121	24.2	26	21.5
	city of more than 500,000 inhabitants	86	17.2	17	14.0
assessment of monthly income	very good	40	8.0	3	2.5
	good	134	26.8	24	19.8
	average	261	52.2	57	47.1
	bad	56	11.2	32	26.5
	very bad	9	1.8	5	4.1

Source: Own analysis based on the survey conducted in the project number 037/ZJO/2022/PRO 'Przydatność, wiarygodność i zrozumiałość informacji zamieszczanych na opakowaniach kosmetyków naturalnych' Cracow University of Economics.

5. THE RESEARCH RESULTS

Analysis of the data revealed that information on packaging is the second most important element of packaging for consumers (3.63). Only the functionality of packaging (e.g., opening, dosing) was found to be more important (3.72). Packaging material (type, quality) was rated as less important than information (3.27). Further elements, i.e., shape (2.84), graphic elements (2.72) and packaging colours (2.50) were rated as unimportant.

Detailed results as to the importance of individual packaging elements are presented in Table 2.

Table 2. Elements of packaging relevant during purchase

Elements	N	Average	SD	Median	Min	Max	Q1	Q3
packaging colours	500	2.50	1.05	3	1	5	2	3
information	500	3.63	1.01	4	1	5	3	4
graphic elements	500	2.72	1.03	3	1	5	2	3
packaging material	500	3.27	1.06	3	1	5	3	4
shape	500	2.84	1.05	3	1	5	2	4
functionality	500	3.72	0.96	4	1	5	3	4

SD – standard deviation, Q1 – lower quartile, Q3 – upper quartile.

Source: Own analysis based on the survey conducted in the project number 037/ZJO/2022/PRO 'Przydatność, wiarygodność i zrozumiałość informacji zamieszczanych na opakowaniach kosmetyków naturalnych' Cracow University of Economics.

In terms of usefulness, the range of indications for the listed labels was between 45.4% and 89.4%. The most useful for consumers were ingredient-related claims (89.4%), performance claims (84.2%) and environmental claims (80.0%), which received 400 or more indications. The next most useful were claims related to life-style choices (76.2%), sensory claims (70.4%), comparative claims (68.6%) and consumer perception claims (59.8%). The claims that received the lowest number of indications – less than 250 – were hyperbolic/puffery claims (45.4%).

Detailed results as to the usefulness of product claims appearing on natural cosmetics packaging in the opinion of consumers are presented in Table 3.

Table 3. Usefulness of product claims in consumers' opinions

Claims	Usefulness (n=500)	
	n	%
ingredient-related claims	447	89.4
performance claims	421	84.2
comparative claims	343	68.6
sensory claims	352	70.4
consumer perception claims	299	59.8
claims related to life-style choices, personal values and beliefs	381	76.2
environmental claims	400	80.0
hyperbolic/puffery claims	227	45.4

Source: Own analysis based on the survey conducted in the project number 037/ZJO/2022/PRO 'Przydatność, wiarygodność i zrozumiałość informacji zamieszczanych na opakowaniach kosmetyków naturalnych' Cracow University of Economics.

When assessed for understandability, the range of indications for each group of claims was between 56.8% and 88.4%. In contrast, the most understandable for consumers were ingredient-related claims (88.4%), product performance claims (86.4%) and environmental claims (80.6%), which were rated as understandable by more than 400 respondents. This

was followed by claims related to life-style choices, personal values and beliefs (79.6%), sensory claims (77.8%), comparative claims (75.6%) and consumer perception claims (70.8%). The least number of indications was given to hyperbolic/puffery claims (56.8%).

Detailed results regarding the understandability of selected groups of claims on natural cosmetics packaging are presented in Table 4.

Table 4. Understandability of product claims in consumers' opinions

Claims	Understandability (n=500)	
	n	%
ingredient-related claims	442	88.4
performance claims	432	86.4
comparative claims	378	75.6
sensory claims	389	77.8
consumer perception claims	354	70.8
claims related to life-style choices, personal values and beliefs	398	79.6
environmental claims	403	80.6
hyperbolic/puffery claims	284	56.8

Source: Own analysis based on the survey conducted in the project number 037/ZJO/2022/PRO 'Przydatność, wiarygodność i zrozumiałość informacji zamieszczanych na opakowaniach kosmetyków naturalnych' Cracow University of Economics.

In terms of reliability, the range of indications for each group of statements was between 44.8% and 84.4%. The most common assessed as reliable were ingredient-related claims (84.4%). In contrast, performance claims (79.8%), environmental claims (76.0%), claims related to life-style choices, personal values and beliefs (74.4%), sensory claims (63.8%), comparative claims (59.6%) and consumer perception claims (54.2%) were indicated as reliable by more than half of the respondents. Under 250 indications were given to hyperbolic/puffery claims (44.8%).

Detailed results as to the reliability of selected groups of information appearing on the packaging of natural cosmetics in the opinion of consumers are presented in Table 5.

Table 5. Reliability of product claims in consumers' opinions

Claims	Reliability (n=500)	
	n	%
ingredient-related claims	422	84.4
performance claims	399	79.8
comparative claims	298	59.6
sensory claims	319	63.8
consumer perception claims	271	54.2
claims related to life-style choices, personal values and beliefs	372	74.4
environmental claims	380	76.0
hyperbolic/puffery claims	224	44.8

Source: Own analysis based on the survey conducted in the project number 037/ZJO/2022/PRO 'Przydatność, wiarygodność i zrozumiałość informacji zamieszczanych na opakowaniach kosmetyków naturalnych' Cracow University of Economics.

6. DISCUSSION

The results of the study correspond with the work developed previously, as confirmed by research conducted by, i.a. Vergura et al. (2019), Bui et al. (2021), Bernard and Parker (2021), and Mohamad Daud and Hee (2021). As stated, consumers who seek information about a product are more likely to be positive towards the purchase of a natural cosmetic, and knowledge about a product and adequate information about its characteristics have a significant impact on consumers' perception of the quality of these products and purchase intentions. It is therefore important to use the right tools to provide information to the consumer. One of these is packaging, which, according to Moslehpour et al. (2021), is the most effective tool at the producer's disposal to influence consumers' purchasing decisions, and its role and importance is particularly important in the shop when the consumer is browsing the shelves (Kim, Seock, 2009; Singhal, Malik, 2021). The importance of the informativeness of packaging was pointed out by Cervellon et al. (2011), Cervellon, Carey (2011), Lin et al. (2018), Accenture et al. (2020) and Mobile Institute (2021), who found that the information on the packaging often enables consumers to see and identify natural cosmetics. In contrast, Jeong and Hwang (2011), Han et al. (2016) and Oh (2020) highlighted the impact of on-pack information on consumer satisfaction.

The frequency with which claims are indicated in terms of their usefulness, comprehensibility and reliability also reflects the results of the work of other Authors. As indicated by Naturativ (2018), Polski Związek Przemysłu Kosmetycznego (2019), Accenture et al. (2020), Sajinčič et al. (2021), Salve et al. (2021), consumers most often seek and use information on ingredients - including the presence or absence of specific ingredients, their origin, the content of natural or organic ingredients and the function of individual ingredients, as confirmed in this study.

Other frequently sought information among consumers of natural cosmetics is that on the performance and properties of the cosmetic, as evidenced by Żyngiel and Platta (2015), Naturativ (2018), Polski Związek Przemysłu Kosmetycznego (2019) and as also confirmed in this study.

In addition, environmental claims are also important for the majority of consumers of natural cosmetics, as evidenced by the results of studies conducted by Amberg and Fogarassy (2019), Azib (2019), Kantor and Hübner (2019), Kapoor et al. (2019), Sabahat and Emadul (2019) and Kang and Cho (2021), who indicated that factors such as environmental concern and ecological knowledge play an important role when purchasing natural cosmetics. In contrast, studies by Chin et al. (2018), Akter and Islam (2020), Abdulmoaz and Ayham (2021) and Zollo et al. (2021) found that the purchase attitudes of natural cosmetics consumers are mainly shaped by concern for the environment, interest in its state of degradation and natural resources, and that companies should emphasise the green attributes of products in their marketing efforts.

The somewhat lower understandability and credibility of claims was also pointed out by other researchers such as: Randiwela and Mihirani (2015), Ma et al. (2018), Lin et al. (2018), Kahraman and Kazançoğlu (2019) and Kozik (2021), emphasising that their level depends, among other things, on the consumer's knowledge of natural cosmetics. Thus, it can be assumed that regular purchasers of these products have a greater store of information about natural cosmetics. For non-buyers of natural cosmetics, low understandability and reliability of information was identified, which is one of the most important purchase barriers according to Dimitrova et al. (2009), Wiwatanaputit (2017), Lin et al. (2018), Kapoor et al. (2019), Firek and Dziadkowiec (2020), Bernard and Parker (2021), Mobile

Institute (2021), Sadiq et al. (2021), Sharma et al. (2021), Šniepienė and Jankauskienė (2021), Lavuri (2022).

7. CONCLUSIONS

A key element of packaging is the product claims on it, which aim to enable consumers to make informed decisions and choose products that meet their needs and expectations. As demonstrated by Naturativ (2018) and Chandon (2020), many consumers make purchasing decisions precisely based on the claims made on packaging.

This corresponds with the results of the present study, which proved that the information on the packaging of natural cosmetics is an important element that consumers of these products pay attention to, and that the product claims are useful to consumers, which indicates the significant role of the claims in their purchasing decisions and evaluation of the natural cosmetic in question, as well as being understandable and reliable. Considering the aforementioned criteria, the hierarchy of the labels followed a similar pattern, reflecting the needs of consumers who would like product claims to provide them with specific information mainly related to the composition, action and function of the cosmetic. Environmental issues are equally important to consumers of natural cosmetics, and this is also worth communicating on the packaging. They make slightly less use of claims that enable them to choose a product in line with their values, as well as those related to the sensory and functional attributes of the product and its attractiveness. They also find these claims slightly less understandable and credible. The least useful, understandable and credible claims are exaggerated claims that are hyperbolic and metaphorical and not literally understood by consumers.

In consideration of the above, it is worthwhile for manufacturers to include product claims on the packaging of natural cosmetics in addition to the mandatory information, as they are mostly useful, understandable and credible to consumers. At the same time, they should ensure that the number and architecture of the information and signs on the packaging is appropriate, focusing mainly on those that are most relevant to the consumer and dispensing with claims that are unnecessary for the consumer. The correct placement and prominence of information can effectively improve the finding of specific information messages, as well as their interpretation and, consequently, the effectiveness of the packaging's marketing communication. It is therefore important that, after the initial interest by means of shape or colour, the packaging maintains the consumer's curiosity through clear, legible and, above all, useful, understandable and credible information.

Acknowledgements

The publication was financed from the subsidy granted to the Cracow University of Economics – Project nr 037/ZJO/2022/PRO.

REFERENCES

- Abdulmoaz, A., Ayham, S. (2021). *Consumer behavior towards green cosmetic products in Sweden* [Bachelor thesis, Mälardalen University]. DiVA Portal [Access: 15.05.2023]. Access on the internet: <https://www.diva-portal.org/smash/get/diva2:1559714/FULLTEXT01.pdf>.
- Accenture, Fashionbiznes.pl, Fundacja Kupuj Odpowiedzialnie (2020). *Świadomy konsument. Raport przygotowany przez Accenture, Fashionbiznes.pl i Fundację Kupuj Odpowiedzialnie. Moda | Kosmetyki* [Raport] [Access: 10.05.2023]. Access on the internet:

- https://www.accenture.com/_acnmedia/PDF-138/Accenture-Report-Swiadomy-Konsument-2020.pdf.
- Akter, S., Islam, M.S. (2020). *Factors influencing the attitude of women towards purchasing green products: An explorative case study of organic cosmetics in Sweden*. "Journal of Consumer Sciences", 48.
- Amberg, N., Fogarassy, C. (2019). *Green Consumer Behavior in the Cosmetics Market*. "Resources", 8(3). DOI: 10.3390/resources8030137.
- Ankiel-Homa, M., Czaja-Jagielska, N., Malinowska, P. (2014). *Opakowania kosmetyków – aspekty towaroznawcze i marketingowe*. Warsaw: IBRKiK.
- Azib, S.S.B.A. (2019). *Factors purchasing patterns of eco-friendly cosmetics and beauty care products* [Bachelor thesis, Universiti Teknologi MARA]. Universiti Teknologi MARA Institutional Repository [Access: 15.05.2023]. Access on the internet: https://ir.uitm.edu.my/id/eprint/23600/1/PPb_SITI%20SYUHADA%20AB%20AZIB%20M%20BM%2019_5.pdf.
- Bellomo, M. (2021). *Sustainable cosmetics: the impact of packaging materials, environmental concern and subjective norm on green consumer behaviour* [Master thesis, Louvain School of Management, Université catholique de Louvain]. DIAL Digital access to libraries Université catholique de Louvain [Access: 10.05.2023]. Access on the internet: https://dial.uclouvain.be/downloader/downloader.php?pid=thesis%3A31245&datastream=PDF_01&cover=cover-mem.
- Bernard, M., Parker, L. (2021). *The effect of conscious consumerism on purchasing behaviors. The example of greenwashing in the cosmetics industry* [Bachelor thesis, Jönköping University International Business School]. DiVA Portal [Access: 10.05.2023]. Access on the internet: <https://www.diva-portal.org/smash/get/diva2:1564552/FULLTEXT01.pdf>.
- Bui, T.Q., Nguyen, N.-T., Nguyen, K.K., Tran, T.-T. (2021). *Antecedents Affecting Purchase Intention of Green Skincare Products: A Case Study in Vietnam*. "Journal of Asian Finance, Economics and Business", 8(3).
- Cervellon, M.-C., Carey, L. (2011). *Consumers' perceptions of 'green': Why and how consumers use eco-fashion and green beauty products*. "Critical Studies in Fashion & Beauty", 2(1). DOI: 10.1386/csfb.2.1-2.117_1.
- Cervellon, M.-C., Rinaldi, M., Wernerfelt, A.-S. (2010). *How Green is Green? Consumers' understanding of green cosmetics and their certifications*. "10th International Marketing Trends Conference".
- Chin, J. Jiang, B.C., Mufidah, I., Persada, S.F., Noer, B.A. (2018). *The Investigation of Consumers' Behavior Intention in Using Green Skincare Products: A Pro-Environmental Behavior Model Approach*. "Sustainability", 10(11). DOI: 10.3390/su10113922.
- Couste, N.L., Martos-Partal, M., Martínez-Ros, E. (2012). *The Power of a Package*. "Journal of Advertising Research", 52(3). DOI: 10.2501/jar-52-3-364-375.
- Dimitrova, V., Kaneva, M., Gallucci, T. (2009). *Customer knowledge management in the natural cosmetics industry*. "Industrial Management & Data Systems", 109(9). DOI: 10.1108/02635570911002243.
- Firek, A., Dziadkowiec, J.M. (2020). *Preferencje i zachowania konsumentów na rynku kosmetyków naturalnych*. "Nauki Inżynierskie i Technologie", 1(36). DOI: 10.15611/nit.2020.36.03.
- Han, D.-K., Lee, H.-J., Paik, H.-D., Shin, D.-K., Park, D.-S., Hwang, H.-S., Hong, W.-S. (2016). *Importance-Performance Analysis (IPA) of the selection attributes of functional cosmetics*. "Journal of the Korea Academia-Industrial cooperation Society", 17(6). DOI: 10.5762/kais.2016.17.6.527.

- Jeong, H.-W., Hwang, C.-S. (2011). *Consumer Acceptance of Cosmetics Labels and Satisfaction Level with Cosmetics after Purchase: Viewed by the Type of Distribution Channel*. "Journal of the Korean Society of Clothing and Textiles", 35(12). DOI: 10.5850/jksct.2011.35.12.1486.
- Kahraman, A., Kazançoğlu, İ. (2019). *Understanding consumers' purchase intentions toward natural-claimed products: A qualitative research in personal care products*. "Business Strategy and the Environment", 28(6). DOI: 10.1002/bse.2312.
- Kantor, A., Hübner, R. (2019). *Zachowania kobiet na rynku kosmetyków naturalnych*. „Studia Ekonomiczne”, 379.
- Kang, H.-K., Cho, H.-K. (2021). *The Effect of Consumption Value on Eco Friendly Cosmetics Purchasing Behavior*. "The Journal of the Korea Association", 21.
- Kapoggiani, M. (2011). *Attitudes and intention toward organic cosmetics in Greece: an exploratory study* [Master thesis, International Hellenic University]. International Hellenic University Repository [Access: 20.05.2023]. Access on the internet: <https://repository.ihu.edu.gr/xmlui/bitstream/handle/11544/331/dissertation%2520maria%2520kapogianni.pdf?sequence=1>.
- Kapoor, R., Singh, A. B., Misra, R. (2019). *Green Cosmetics – Changing Young Consumer Preference and Reforming Cosmetic Industry*. "International Journal of Recent Technology and Engineering", 8(4). DOI: 10.35940/ijrte.d6927.118419.
- Kim, S., Seock, Y.-K. (2009). *Impacts of health and environmental consciousness on young female consumers' attitude towards and purchase of natural beauty products*. "International Journal of Consumer Studies", 33(6). DOI: 10.1111/j.1470-6431.2009.00817.x.
- Konopacka-Brud, I. (2010). *Kosmetyki naturalne czy „naturalne”?* "Chemik", 64(10).
- Kozik, N. (2021). *Rozpoznawalność certyfikatów kosmetyków naturalnych i organicznych wśród młodych konsumentów* [In:] Popek, M., ed., *Innowacje w kształtowaniu jakości wyrobów i usług*. Gdynia: Wydawnictwo Uniwersytetu Morskiego w Gdyni.
- Kozik, N. (2022). *Types, Legal Aspects and Irregularities of Product Claims on Natural Cosmetics Packages: an Empirical Study*. "39th International Business Information Management Association Conference (IBIMA)".
- Kuitunen, E. (2021). *Green skincare in Finland and France: A Millennial perspective on Greenwashing* [Bachelor thesis, Arcada University of Applied Sciences]. Open Repository Theseus [Access: 10.05.2023]. Access on the internet: <https://www.theseus.fi/handle/10024/494885>.
- Lavuri, R., Jabbour, Ch.J.Ch., Grebinevykh, O., Roubaud, D. (2022). *Green factors stimulating the purchase intention of innovative luxury organic beauty products: Implications for sustainable development*. "Journal of Environmental Management", 301. DOI: 10.1016/j.jenvman.2021.113899.
- Lin, Y., Yang, Sh., Hanifah, H., Iqbal, Q. (2018). *An Exploratory Study of Consumer Attitudes toward Green Cosmetics in the UK Market*. "Adm. Sci.", 8(4). DOI: 10.3390/admsci8040071.
- Lisińska-Kuśnierz, M. (2014). *Food packaging as non-satisfactory communication instrument in opinion of consumers* [In:] Cholewa, A., Kawecka, A., ed., *Innovations in Product Development and Packaging*. Cracow: Polskie Towarzystwo Towaroznawcze.
- Lixandru, M.-G. (2017). *Advertising for Natural Beauty Products: The Shift in Cosmetic Industry*. "European Scientific Journal", 13(12). DOI: 10.19044/esj.2017.v13n12p%p.

- Ma, G., Rau, P.-L.P., Guo, Z. (2018). *The Effects of Environmental Awareness and Consumption Value on Green Makeup Product Purchase Intentions*. "Psychology", 09(07). DOI: 10.4236/psych.2018.97110.
- Market Research Future (2019). *Natural and Organic Cosmetics Market Size, Share, Segmentation by Type (Skin Care, Hair Care, Oral Care, Makeup Cosmetics and Others), by Consumer Group (Male and Female), by Distribution Channel (Store-Based and Non-Store Based) – Global Forecast till 2027* [Raport] [Access 17.05.2023]. Access on the internet: <https://www.marketresearchfuture.com/reports/natural-organic-cosmetics-market-7257>.
- Mazurek-Łopacińska, K. [ed.] (2016). *Badania marketingowe. Metody, techniki i obszary aplikacji na współczesnym rynku*. Warsaw: Wydawnictwo Naukowe PWN.
- Mintel (2020). *Global Beauty and Personal Care Trends 2030* [Access: 9.05.2023]. Access on the internet: <https://www.mintel.com/beauty-trends-2030>.
- Mobile Institute (2021). *Green Generation 2021. Wspólnie na rzecz Ziemi. Raport* [Access: 9.05.2023]. Access on the internet: https://s.mobileinstitute.eu/pub/429be3e5cbfd899f894d5d86b453e6ca92750d9/GreenGeneration_WspolnieNaRzeczZiemi_2021.pdf.
- Mohamad Daud, F.N., Hee, O.C. (2021). *The Mediating Role of Brand Love in Predicting Green Purchase Behaviour of Organic Cosmetic Products*. "International Journal of Academic Research in Business and Social Sciences", 11(6). DOI: 10.6007/ijarbss/v11-i6/8487.
- Moslehpour, M., Chaiyapruk, P., Faez, S., Wong, W.-K. (2021). *Generation Y's Sustainable Purchasing Intention of Green Personal Care Products*. "Sustainability", 13(23). DOI: 10.3390/su132313385.
- Naturativ (2018). *Raport Slow life w Polsce 2018* [Raport] [Access: 9.05.2023]. Access on the internet: <https://www.naturativ.pl/raportslow/>.
- Newerli-Guz, J. (2011). *Walory ekologiczne jako czynnik budowy przewagi konkurencyjnej na rynku produktów kosmetycznych*. "Zeszyty Naukowe Uniwersytetu Szczecińskiego. Ekonomiczne Problemy Usług", 73.
- Oh, Y.-K. (2020). *Effects of Cosmetics Purchase Decision Factors of Female University Students in Korea and Taiwan on the Korea Cosmetics Satisfaction*. "Asian Journal of Beauty and Cosmetology", 18(4). DOI: 10.20402/ajbc.2020.0086.
- Pawlik, A., Niewęglowska-Wilk, M., Kalicińska, J., Śpiewak, R. (2017). *Kosmetyki „naturalne”, „biologiczne” i „ekologiczne”. Gwarancja bezpieczeństwa czy marketing? "Kosmetologia Estetyczna", 2*.
- Organic Trade Association (2021). *2021 Organic Industry Survey* [Raport] [Access: 9.05.2023]. Access on the internet: <https://ota.com/organic-market-overview/organic-industry-survey>.
- Polski Związek Przemysłu Kosmetycznego (2019). *Dobre Praktyki Deklaracji Marketingowych i Reklamy Kosmetyków. Przewodnik techniczny Polskiego Związku Przemysłu Kosmetycznego. Wersja 4* [Broszura] [Access: 9.05.2023]. Access on the internet: https://www.kosmetyczni.pl/uploads/dokumenty/Kosmetyczni.pl_Dobre%20Praktyki%20Reklamy_przewodnik.pdf.
- Pótorak, A., Niewęglowska-Wilk, M., Śpiewak, R. (2014). *Kosmetyki „naturalne”, „biologiczne” i „ekologiczne”: występowanie substancji potencjalnie niebezpiecznych w deklarowanym przez producenta składzie produktów*. "Estetologia Medyczna i Kosmetologia". DOI: 10.14320/emk.2014.008.pl.
- Przewoźna-Skowrońska, A., Dewicka, A. (2016). *Wpływ opakowania na zachowania konsumentów*. "Zeszyty Naukowe Politechniki Poznańskiej Organizacja i Zarządzanie". DOI: 10.21008/j.0239-9415.2016.071.18.

- Purwaningsih, I., Surachman, S., Pratikto, P., Santoso, I. (2019). *Influence of packaging element on beverage product marketing*. "International Review of Management and Marketing", 9(6). DOI: 10.32479/irmm.8831.
- Randiwela, P., Mhirani, N. (2015). *Consumer Buying Behaviour and Attitudes Towards Eco-Friendly Fast-Moving Consumer Goods – Cosmetics & Personal Care Products*. "2015 Cambridge Business & economics Conference".
- Rebollar, R., Gil, I., Lidón, I., Martín, J., Fernández, M.J., Rivera, S. (2017). *How material, visual and verbal cues on packaging influence consumer expectations and willingness to buy: The case of crisps (potato chips) in Spain*. "Food Research International", 99. DOI: 10.1016/j.foodres.2017.05.024.
- Sabahat, S., Emadul, K. (2019). *Consumer Buying Behavior: Organic Cosmetics versus Non-Organic Cosmetics* [Bachelor thesis, Greenwich University Karachi, Pakistan]. Munich Personal RePEc Archive [Access: 9.05.2023]. Access on the internet: https://mpra.ub.uni-muenchen.de/110098/1/MPRA_paper_109973.pdf.
- Sadiq, M., Adil, M., Paul, J. (2020). *An innovation resistance theory perspective on purchase of eco-friendly cosmetics*. "Journal of Retailing and Consumer Services", 102369. DOI: 10.1016/j.jretconser.2020.102369.
- Sajinčič, N., Gordobil, O., Simmons, A., Sandak, A. (2021). *An Exploratory Study of Consumers' Knowledge and Attitudes about Lignin-Based Sunscreens and Bio-Based Skincare Products*. "Cosmetics", 8(3). DOI: 10.3390/cosmetics8030078.
- Salve, P.P., Pabalkar, V., Roy, T.K. (2021). *Consumers Price Sensitivity towards Marketing Claims for Eco-Friendly Cosmetics*. "PalArch's Journal of Archaeology of Egypt / Egyptology", 18(4).
- Sharma, M., Deka, J., Trivedi, P. (2021). *A paradigm shift in consumer behaviour towards green cosmetics: an empirical study*. "International Journal of Green Economics", 15(1). DOI: 10.1504/ijge.2021.10040171.
- Shimul, A.S., Cheah, I., Khan, B.B. (2022). *Investigating female shoppers' attitude and purchase intention towards green cosmetics in South Africa*. "Journal of Global Marketing", 35(1). DOI: 10.1080/08911762.2021.1934770.
- Singhal, A., Malik, G. (2019). *The impact of Consumer Value Positioning on Female Consumer Related to Green Cosmetic Products*. "IJEEFUS", 9(3).
- Šniepienė, G., Jankauskienė, R. (2021). *Organic Personal Care Cosmetics: Behavior of Choice and Consumption*. "Proceedings of CBU in Medicine and Pharmacy", 2. DOI: 10.12955/pmp.v2.190.
- Soil Association (2017). *Campaign for clarity. Soil Association. Come clean about beauty* [Raport] [Access: 10.05.2023]. Access on the internet: <https://www.soilassociation.org/media/11393/c4c-report-3.pdf>.
- Statista (2019). *Market value for natural and organic beauty worldwide 2018–2027* [Access: 19.05.2023]. Access on the internet: <https://www.statista.com/statistics/673641/global-market-value-for-natural-cosmetics/>.
- The Benchmarking Company (2008). *The Age of Naturals* [Access: 9.05.2023]. Access on the internet: <https://benchmarkingcompany.com/product/the-age-of-naturals/>.
- The Derm Review (2022). *Is 'Natural' Skincare Really Natural?* [Access: 9.05.2023]. Access on the internet: <https://thederreview.com/natural-skincare-study/>.
- Vergura, D.T., Zerbini, C., Luceri, B. (2019). *Consumers' attitude and purchase intention towards organic personal care products. An application of the S-O-R model*. "Sinergie Italian Journal of Management", 38(1). DOI: 10.7433/s111.2020.08.

- Wiwatanaput, W. (2017). *A study of consumer behavior toward organic skin and personal care products* [Master thesis, Thammasat University]. Thammasat University Digital Collections [Access: 19.05.2023]. Access on the internet: http://ethesisarchive.library.tu.ac.th/thesis/2017/TU_2017_5902040921_8431_6721.pdf.
- Zollo, L., Carranza, R., Faraoni, M., Díaz, E., Martín-Consuegra, D. (2021). *What influences consumers' intention to purchase organic personal care products? The role of social reassurance*. "Journal of Retailing and Consumer Services", 60. DOI: 10.1016/j.jretconser.2020.102432.
- Żyngiel, W., Platta, A. (2015). *Oczekiwania konsumentów wobec preparatów kosmetycznych pochodzenia naturalnego wykorzystywanych w zabiegach SPA & Wellness*. "Handel Wewnętrzny", 1(354).

LEGAL ACTS

- Commission Regulation (EU) No 655/2013 of 10 July 2013 laying down common criteria for the justification of claims used in relation to cosmetic products. OJ L 190/31.
- Regulation (EC) No 1223/2009 of The European Parliament and of The Council of 30 November 2009 on cosmetic products. OJ EU L 342/59.

