

THE THESIS OF THE PHD DISSERTATION

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**INVESTIGATION OF THE CUSTOMER BEHAVIOUR OF
DOMESTIC CONSUMERS IN RELATION TO COSMETIC
PRODUCTS, WITH PARTICULAR REGARD TO
ENVIRONMENTAL AND HEALTH AWARENESS**

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TABLE OF CONTENT

1. ANTECEDENTS AND OBJECTIVES OF THE WORK	1
1.1. Introduction, objectives	1
1.2. Hypotheses	3
2. MATERIAL AND METHODS	5
2.1. Research methodology	5
2.1.1. Qualitative research	5
2.1.2. Quantitative research	6
2.2. Statistical methods used to analyse the data	7
3. RESULTS AND DISCUSSION	9
3.1. The research's own theoretical and conceptual model	9
3.2. The results of the qualitative research	11
3.2.1. The results of the unstructured observation (with interviews at the point of purchase)	11
3.2.2. Results of individual and paired interviews	13
3.2.3. Results of focus group interviews	16
3.2.4. Creating my own model of the cosmetics purchase process based on qualitative research results (own research model).....	18
3.3. The results of the quantitative research	21
3.3.1. Relationships between purchase and use frequency of cosmetics	21
3.3.2. Characteristics of natural vs. chemical cosmetic brands	22
3.3.3. Description of the factors of cosmetics purchases in stores with the time spent on the purchase and expenses	23
3.3.4. Description of the factors of environmentally and health-conscious cosmetics purchases with the time spent on the purchase and the expenses	26
3.3.5. Customer groups based on factors that characterise cosmetics purchases in stores.....	28
3.3.6. Customer groups based on the factors that characterise environmentally and health-conscious cosmetics purchases.....	31
3.3.7. Relationships between the examined cosmetic customer segments	35
4. CONCLUSIONS AND SUGGESTIONS	39
5. NEW SCIENTIFIC RESULTS	45
6. BIBLIOGRAPHY	49
7. PUBLICATIONS RELATED TO THE TOPIC OF THE DISSERTATION	51

1. ANTECEDENTS AND OBJECTIVES OF THE WORK

1.1. Introduction, objectives

As the topic of my PhD dissertation, I chose to examine the consumer and customer behaviour of domestic consumers in relation to cosmetic products, with particular regard to environmentally conscious consumer behaviour in the cosmetics market for the reason that our environment is becoming more and more polluted by industrialisation, various polluting fuels, waste disposal, artificial materials, by the spread of plastic product packaging, and this affects our immediate environment, our lives as well (KERÉNYI 2003, SZÉKY 1987). Pollution of the environment also has a direct effect on our state of health, since "keeping people healthy nowadays is becoming more and more difficult due to the increasing degree of denaturation of the environment" (BAKÁCS 1977, p. 3). As basic research, customer and consumer behaviour towards cosmetics is novel both in terms of examining natural and non-natural cosmetics, and in connection with environmental and health awareness. Apart from the fact that the purchase and use of cosmetics has become part of our everyday life, the economic and social importance of the topic lies in the fact that environmental and health awareness appears in all areas of life (e.g. fair trade, animal welfare, sustainability, circular economy, the destruction of primeval forests and protection against ocean pollution) (CINELLI et al. 2019, NÁNÁSI (Ed.) 2005). The scientific significance of the topic is given by the presentation of new research results that are broad and rich in depth. The cosmetics market is used to describe the different consumer groups and to explore the factors that influence the decision, for example the types of cosmetics (chemical, natural, eco, organic, bio, vegan) and the range of different brands (global, premium, private and other brands), but it was especially aimed at presenting its demand, revealing the relationships between them (STATISTA 2018, IN-COSMETICS GLOBAL 2019). The cosmetic product and service group is also special because the development of beauty care can be traced back to thousands of years of history, and the use of natural materials is becoming more and more important in the production of cosmetics. The manual production of natural cosmetics has a special role in reducing environmental pollution, which entails a reduction in mechanical work, but the use of natural ingredients and packaging materials also has a positive effect on both our environment and our health. Environmental awareness also includes areas of overconsumption and waste, such as unnecessary purchases, waste generation before and after the expiration date, and the remains of the contents of cosmetics. I ignored the latter from the point of view of my research, because their investigation goes beyond the aim and page limits of the dissertation. On the other hand, during the study of literary sources, it also became clear to me that in the case of consumer and customer behaviour related to cosmetics, given the special characteristics of the product and service area that is

the subject of the decision, environmentally conscious consumer behaviour shows a close relationship with health awareness. The reason for this can be explained primarily by the health-preserving and supporting role of cosmetics in addition to beauty care. During the literature processing and the previous demo research, it became clear to me that I also need to scrutinise other factors that influence the choice and purchase of cosmetics, since - among other things - the price and quality of cosmetic products and services, as well as the circumstances of the purchase of cosmetics, also have an impact on decision-making. Due to the scope of this research and the similarities of the cosmetics market, I compared domestic consumer behaviour with global, American, and European consumer behaviour, but the trends also include Asian trends (NIELSEN 2015a), which have a significant impact on Western cosmetic markets as well. The most important research problem is the discovery of the reasons that make it clear which factors affect the consumer's decision to buy cosmetics with chemical composition and packaging or natural cosmetics, and to what extent domestic cosmetics customers are environmentally and health conscious. Therefore, my main goal was to shed new light on the influence of factors affecting consumer/customer behaviour related to cosmetics through the discovery of secondary information about cosmetics and the conduct of primary studies by defining the different cosmetic consumer/customer groups. In connection with the conduct of the research, the fact that there is currently a lack of foundational research related to cosmetic products and services in our country that shows domestic conditions was also a major motivating force, which is why it was necessary to present the factors that influence the behaviour of cosmetics customers and consumers, emphasising the environmentally and health-conscious factors.

My research added to the world's current knowledge of the consumer/customer behaviour of domestic consumers/customers for cosmetics (including cosmetic services) through primary queries. Furthermore, a summary of basic cosmetic research on how the factors of my own (developed in two phases – 1. conceptual model, 2. research model) consumer/customer model influence the preference for natural vs. non-natural cosmetics/cosmetic services, and whether there are consumer groups at all who make environmentally and health-conscious decisions when purchasing cosmetics. Without claiming to be complete and taking into account the page frames of the dissertation, this work aims to fill this gap. Table 1 contains the objectives of the research and the methods associated with them.

Table 1: Presentation of the relationship between research objectives and methods

Objectives of the research	Research and data collection methods
O1. The classification of product groups (cosmetics) related to the cosmetics market according to different aspects, and the presentation of the cosmetics market.	Literature processing, secondary research Application of general research methodology
O2. Systematisation of the trends and factors influencing the consumption and purchase of cosmetics, the presentation of the source models that can be linked to them, and the creation of my own theoretical conceptual model describing the purchase and consumption of cosmetics.	Literature processing, secondary research Application of general research methodology
O3. Identification of cosmetics customer behaviour and factors influencing it in an in-store environment.	Qualitative research and data collection method: Unstructured observation
O4. Examination of the validity of my own theoretical conceptual model based on environmental and health awareness of cosmetic products as factors influencing purchase. Developing my own research model based on these results.	Qualitative research and data collection method: Individual and paired interviews
O5. Examining the validity of my own theoretical conceptual model during the exploration and identification of reasons for choosing natural versus non-natural cosmetics. Developing my own research model based on these results.	Qualitative research and data collection method: Focus group interviews
O6. Description of the relationship system between the factors influencing the purchase (and consumption) of natural vs. non-natural cosmetics - summarised through my own research model - with particular regard to shopping in stores and the elements of environmental and health awareness.	Quantitative research and data collection method: Online survey

Source: Own editing (2019-2022)

1.2. Hypotheses

- **H1.** The characteristics of customers' environmentally and health-conscious lifestyles can be identified when making decisions about cosmetics.
- **H2.** Factors influencing customers when purchasing natural or non-natural cosmetics can be identified.
- **H3.** The frequency with which consumers purchase and use cosmetics for multiple purposes (functions) shows a correlation.
- **H4.** Consumers can identify natural vs. non-natural cosmetic brands based on their ingredients.
- **H5.** Factors that characterise cosmetics purchases in stores can be grouped and differentiated by the length of time spent on the purchase and the size of the expenditure.

- **H6.** The environmentally and health-conscious factors that characterise cosmetics purchases can be structured and described with the help of the time spent on the purchase and the size of the expenditure.
- **H7.** People who buy cosmetics in stores can be segmented based on factors that characterise the purchase (and use) of cosmetics, and these cosmetic customer groups can be distinguished from each other based on the frequency of purchase and use of cosmetics.
- **H8.** People who buy cosmetics in stores can be segmented based on the environmentally and health-conscious factors that characterise cosmetic purchases, and these groups of cosmetic customers can be distinguished from each other based on the frequency of purchase and use of cosmetics.
- **H9.** A relationship can be described between customer groups that can be defined based on the factors that characterise the purchase of cosmetics, and cosmetic customer segments that can be established with the help of environmentally and health-conscious characteristics.

2. MATERIAL AND METHODS

2.1. Research methodology

The applied research methods were literature processing and secondary research, qualitative research (unstructured observation with interviews at the point of purchase, individual and paired interviews, focus group interviews) and quantitative research (online survey). The topics of the individual and paired interviews, as well as the focus group interviews and the online survey, are the same as the main topics of the literature review, namely

- I. Types of cosmetics and cosmetic services;
- II. The cosmetics market, the availability of cosmetic products/services;
- III. Factors and trends related to the consumption/purchase of cosmetics.

2.1.1. Qualitative research

1. The objective of unstructured observations (UO) is to identify the behaviour of cosmetics customers and the factors influencing it in the in-store environment. Not all factors of my own theoretical, conceptual model could be examined through this method. The unstructured observations (n=93) were conducted in the selected dm and Rossmann drugstores from 22.02.2020 to 12.03.2020 in a hidden (covert) way, i.e. the observed cosmetics customers did not know that they were being observed. I used the maximum variation as a sampling method, which looks for the most diverse sample subjects possible with the widest immersion. The primary purpose of this was to make it possible to identify the different customer groups based on their observed main characteristics. The method of data recording was a hybrid method using a mobile phone and a register notebook.

2. The objective of the individual and paired interviews (IPI) is to examine the validity of my own theoretical conceptual model based on the environmental and health awareness of cosmetic products as factors influencing purchases. Regarding this step of the research, it is important to emphasise that all factors of my own theoretical conceptual model can be examined with the help of individual and paired interviews, i.e. my own theoretical model can also be validated with these methods and can be modified according to the results of the tests. The role of environmentally and health-conscious trend effects on cosmetics in the consumption/purchase of cosmetics can be directly (personally) questioned with the help of the method. I conducted the individual interviews with 12 people and the paired interviews with 4 x 2 people (total: 14 women, 6 men) using the maximum variation as a sampling method, which seeks as many different sample subjects as possible in order to get to know the same and different consumer/customer opinions on the with regard to the examined objective. The

total sample size was 20 people (n=20). The location was either the apartment of the interviewee or another external location from 05.09.2019 to 20.02.2020.

3. The objective of the focus group interviews (FGI) is to examine the validity of my own theoretical conceptual model when exploring and identifying the reasons for choosing natural vs. non-natural cosmetics. My own theoretical conceptual model can also be validated with these methods, and it can be modified according to the results of the tests, similarly to the individual and paired interviews. I also conducted these interviews with 30 people (n=30) in 5 groups (5x6 people, total: 17 women, 13 men) using maximum variation. The purpose of sampling is also to reveal the most different and most similar opinions regarding the knowledge, purchase and consumption of natural vs. non-natural cosmetics. Data collection took place at an external, neutral location from 01.02.2020 to 28.03.2020.

2.1.2. Quantitative research

The online survey describes the relationship between the factors affecting the consumption/purchase of cosmetics. My own (research) model, validated by qualitative methods, reaches its final structure at this stage. Due to the easier access to cosmetic customers/consumers, as well as the length of the data collection tool used for sampling, I chose the online (electronic) survey method in accordance with the research objective, which describes the relationship between the factors of my own research model. In terms of sampling

- a) The basic population is cosmetics customers and users over the age of 18, for whom the sample was not representative.
- b) In terms of territorial extent, the sampling referred to the territory of Hungary.
- c) The time interval of the inquiry lasted from 21.06.2020 to 20.07.2021.
- d) The population element is the respondents reached from the basic population who were contacted by sharing the link of the questionnaire, and which therefore assumed internet user and online status.
- e) Sample number 1,439 people.
- f) In terms of the method of sampling, the first wave of recommendations was launched with the involvement of 65 people, which geographically represented nationwide coverage, and in accordance with the rules of snowball sampling, the persons involved in this way (and in points a) - d), i.e. those corresponding to the selection criteria) they distributed the questionnaire. Based on MALHOTRA (2005), snowball sampling is one of the representative selection procedures within the sub-investigation, including conscious or non-probability sampling, despite this, the sample ultimately did not result in representativeness. Number of people completing the self-completed questionnaire: n=1,576 people, after data cleaning: 1,439 people. More than 2/3 of the respondents were women (1,016 people), less than 1/3 were men (423 people). Based on the results of the

qualitative studies, it has been proven that cosmetics customer behaviour cannot be examined without the use/consumption of cosmetics, so the examinations were supplemented with this factor. The investigation of cosmetic services was not continued in the quantitative phase, the reason for which was the limited opportunities provided by the side frames. The basis of the online questionnaire survey could not be any preliminary investigation of customer and consumer behaviour towards domestic cosmetics, since no such basic research had been conducted up to now.

2.2. Statistical methods used to analyse the data

The test methods used to process the data of the online questionnaire included two-sample T-tests, univariate (frequency and descriptive statistics), bivariate (cross-tabulation analyses) and multivariate methods (principal component analysis, analysis of variance, cluster analysis). The analyses are based on the guidelines of BABBIE (2017), SAJTOS & MITEV (2007), SZÉKELYI & BARNA (2008), ENNS (1985), LUNAU (Ed.) (2008), GYURGYÁK (2019), FARRIS et al. (2008), FAJSZI et al. (2010), HOFFMANN et al. (Ed.) (2001), SZÚCS (Ed.) (2002) and SZÚCS & ZÉMAN (2018).

3. RESULTS AND DISCUSSION

3.1. The research's own theoretical and conceptual model

My own research model is based on a customer behaviour model (ENGEL & KOLLAT & BLACKWELL 1973), a model based on consumer attitudes (DEMBKOWSKI & HANMER-LLOYD 1994), and models based on factors influencing consumer behaviour (GRUNERT 1996, TÖRÓCSIK 2007, VERBEKE 2007, ALVENSLEBEN 1989) served. The antecedents of qualitative research are literature processing and secondary research - broken down by topic: types of cosmetics and cosmetic services, the cosmetics market, the availability of cosmetic products/services, and factors and trends related to the consumption/purchase of cosmetics, which are both literature processing and secondary research also had objectives.

The development of my own theoretical and conceptual model went through different stages using individual research methods, which were as follows:

1. At the end of the literature review, a theoretical conceptual model was created, which summarises the factors affecting the purchase and consumption of cosmetics on a theoretical basis.

2. This model was validated in the qualitative phase and explored and identified with the help of all factors influencing purchases and consumption (own research model).

3. Finally, based on the qualitative results, it became the definitive own research model in the qualitative phase, which was described in the quantitative phase.

The novelty of my own theoretical, conceptual model is that it adapted full and partial (referred to non-cosmetic product groups) consumer/customer source models when creating the consumer/customer behaviour model for the cosmetic product and service area. The model also focuses on environmentally and health-conscious decision-making aspects, because conscious consumption and conscious trends are the cornerstones of the topic, but it is also important to include the factors of customised cosmetics and compensatory consumption, as these factors are considered innovative in the purchase of cosmetics in decision making. An important factor is also the evaluation of experiences and learning from experiences.

The main input factors of my own theoretical conceptual model are the information input, lifestyle, way of life, status, as well as the knowledge and evaluation of environmentally and health-friendly products/services, and the definition of product properties. Purchase decisions are also influenced by individual desires, needs, subjective norms and attitudes, as well as attention, interest and motivation. The evaluation of the objective and subjective product properties and the definition of the product criteria are followed by the factors

related to the various purchase outcomes, such as the completion, failure, postponement, rejection of the purchase, as well as the re-purchase or the rejection of the re-purchase, which are also affected by the various factors influencing the purchase situation (LEHOTA 2001, SZAKÁLY 2011, FODOR et al. 2012) (Figure 1).

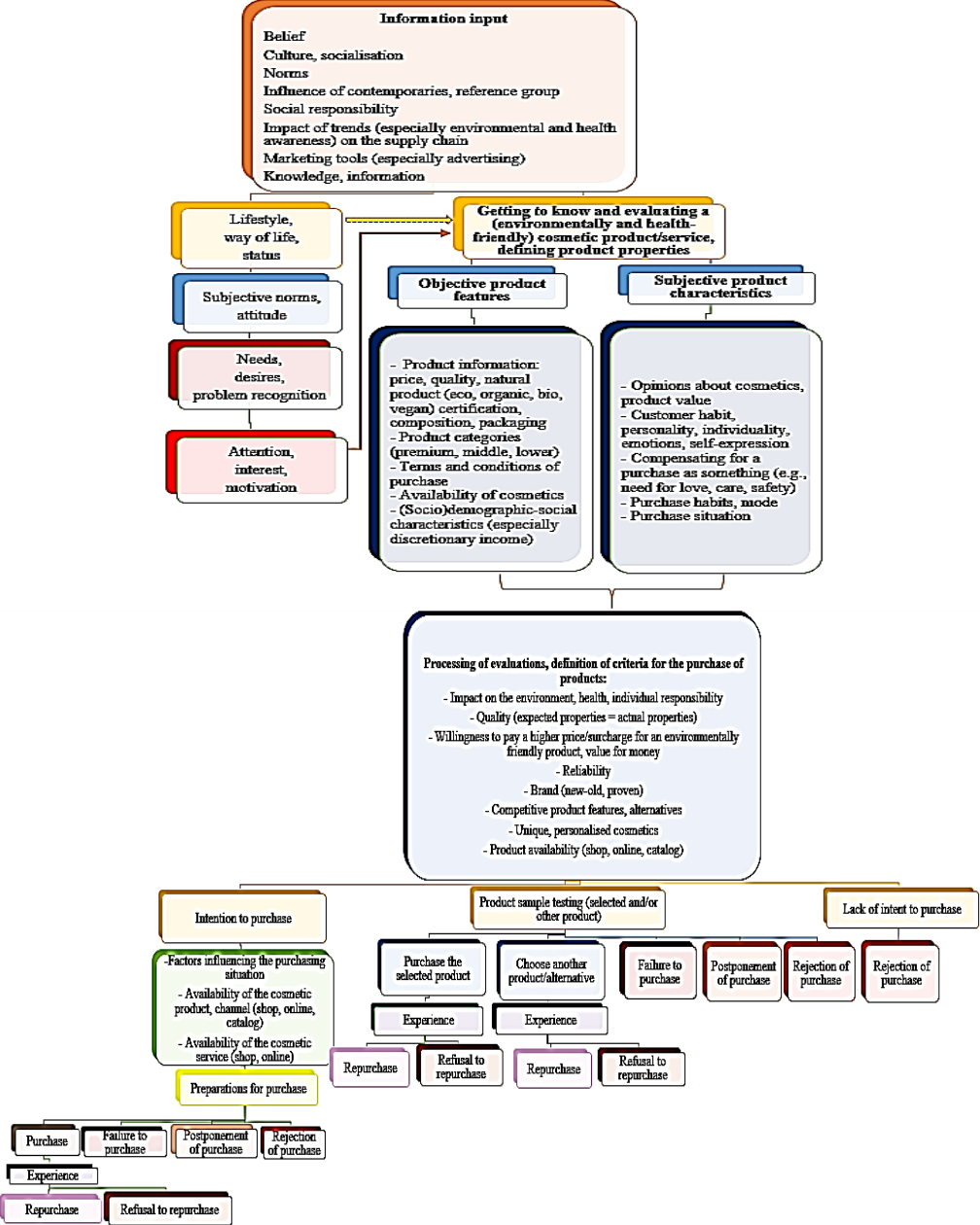


Figure 1: Based on literature review, own theoretical conceptual model showing the relationship between factors affecting the purchase of cosmetics/the use of cosmetic services

Source: Own editing (2020) based on the source models (3.1.)

3.2. The results of the qualitative research

In the following, the main results of the unstructured observation with interviews at the point of purchase, the individual and paired interviews, and the focus group interviews are presented.

3.2.1. The results of the unstructured observation (with interviews at the point of purchase)

The grouping categories revealed as results may characterise customer behaviour, but they are not independent of each other, they only reveal grouping aspects, i.e. their creation does not necessarily follow the quantitative philosophy in terms of methodology. Accordingly, my results do not present segmentation, they merely prepare the segmentation directions of quantitative research (Table 2).

In terms of awareness, conscious and unconscious customers can be distinguished. The characteristic of a conscious buyer is that he/she knows exactly what he/she wants, has product knowledge, or at least wants to get to know the product (he/she is acquiring knowledge about cosmetics in the drugstore). In addition, he/she is interested, buys with a definite purpose, is convinced of the useful properties of a cosmetic, and buys confidently, calmly or out of routine. It can indicate awareness if a customer compares the categories of natural and chemical cosmetics, as well as individual product alternatives. The unconscious customer behaves uncertainly, searches fruitlessly (leaves the store quickly, or searches for a long time in vain among the shelves), is desperate, indecisive in his/her decisions, fickle.

In terms of customer behaviour categories (typicality, types), the concept of a typical customer includes customers who "go through" the process of general customer behaviour, and an atypical customer is someone who somewhat "breaks" the rules of customer behaviour. Examples of the latter include trying out a product sample without the possibility of a tester, making a purchase without using a shopping cart/basket, and confronting customers.

It is also possible to differentiate based on the availability of a sought-after cosmetic. During the research, customers were observed who had difficulty finding the cosmetics they were looking for on the shelves, the reason for which could be, for example, that the customer does not know the location of the cosmetic groups of the given drugstore on the shelves, or perhaps they cannot find the product they are looking for due to product rearrangement. The following typical examples of manifestations of dissatisfaction in drugstores can be mentioned: complaints (due to the difference between the posted and charged prices), subsequent price checks, and verbal and non-verbal communication signs of dissatisfaction are manifested as a result of a futile search for cosmetics or a queue at the cash register.

From the point of view of the use of assistance, customers using personal and material assistance can be distinguished. Personal assistance can be the help and

advice of store staff (e.g. security guard, goods loader, cashier, or shift manager), another customer, or the shopping partner(s), the latter of which can be personal assistance during a joint purchase, or technical assistance at the point of purchase by phone or on the Internet assistance. Material help can be the use of a magnifying glass, a mobile phone (for example, for price calculation, personal calls, product information), a shopping list, or a drugstore magazine. The reason for all of this may be that the customer is uncertain about the necessity of purchasing the cosmetics, he/she may not be able to find the cosmetics he/she is looking for, or some of the product characteristics he/she is looking for are not clear and identifiable to him/her.

The category of equipment use can include elements of material assistance, but also factors that do not affect the purchase decision, or that the customer has due to illness (e.g. walking stick, wheelchair) or due to a certain situation (e.g. umbrella, sunglasses, the current weather because of).

On the basis of emotional expression, customers who "voice" their emotions during shopping (both verbally and non-verbally) and calm customers can be distinguished. Emotions are naturally related to awareness (e.g. calmness, thoughtfulness) or impulse purchases made as a result of an external stimulus.

On the basis of intention (goal), the intention to purchase, learn about a new product, and spend time can be differentiated.

Table 2: Customer grouping directions

<i>Identification factors</i>	<i>Identifiable customer grouping trends</i>
Awareness when choosing and buying cosmetics	<ul style="list-style-type: none"> - Conscious buyer - Not a conscious buyer
Customer behaviour in terms of categories (typicality, types)	<ul style="list-style-type: none"> - Typical customer - Atypical customer
Product availability on the shelves	<ul style="list-style-type: none"> - The customer can easily find the product. - The customer encounters difficulties when finding the product.
Satisfaction	<ul style="list-style-type: none"> - Satisfied customer - Dissatisfied customer
Use of help for shopping (personal, material)	<ul style="list-style-type: none"> - Customer seeking assistance - Customer without assistance
Device usage	<ul style="list-style-type: none"> - A customer using a device - A customer who does not use a device
Emotional expression (verbal, non-verbal communication)	<ul style="list-style-type: none"> - Buying under emotional influence (positive or negative). - He/she seems to shop calmly and thoughtfully.
By intention (goal)	<ul style="list-style-type: none"> - Purchase intention - Desire to get to know the product - Intention to spend time - Two or three of the above factors are present at the same time.

Source: Own research, qualitative phase (UO), n=93 (2020)

The main findings of the point-of-purchase surveys:

1. Perceived shopping time vs. "self-reported" purchase times do not match.
2. Based on observations and interviews at the point of purchase, it seems that if men shop alone, they spend less time in front of the shelves than women.
3. Based on the interviews at the point of purchase, it can be assumed that in the majority of cases the products are not put back on the shelves, that is, they buy the cosmetics that they have selected.
4. Based on the interviews at the point of purchase, customers only read the information on the packaging of cosmetics if they are new products.
5. Based on the interviews at the point of purchase, it can be established that customers usually shop alone.

3.2.2. Results of individual and paired interviews

1. Based on the individual and paired interviews, the factors according to the model also formulated in O4 became identifiable, which were connected to the research topics.
2. Novel factors related to the model factors (Table 3) were also identified, which
 - a. The choice of mainly foreign cosmetics due to the lack of domestic product alternatives, which stems from the peculiarities of the cosmetics market;
 - b. Product sample for daily use (not only for testing), resulting from the individual behaviour of consumers;
 - c. It manifests itself in the search for the form and colour world of favourite leisure activities and hobbies, projected on the selection of cosmetics (for example, a design referring to the beach, discovering the jersey colours of the favourite football team in the external appearance of cosmetics);
 - d. Discovering and using a function other than the original purpose of the product (for example, baby oil for dry hair);
 - e. The customer's sense of security vs. surprise, since the content of surprise (box) cosmetics cannot be examined by the consumer in advance;
 - f. Preference for image products specific to each country (for example, Greek olive oil soap);
 - g. The purpose of product presentation vs. product use is, for example, the external appearance of the extreme product (for example, the "life-affirming" Police perfume available in death's-head packaging);
 - h. Unusual removal of cosmetics from store shelves (for example, from the very back of the shelf), which must not be damaged;
 - i. Seasonal product use due to the weather as an external factor or the fear of quality deterioration associated with temperature changes;
 - j. Product utilisation, i.e. cosmetic products that are misleading and appear to be more favourable (containing more content vs. actually containing less) due to the design of the mold or jar;

- k. The willingness to buy, the amount of time to use the product, and the amount of time that can be allocated to the purchase have been combined with individual characteristics (how much the customer/consumer is willing to spend and has time to buy or use cosmetic products, to wait for their effectiveness);
1. Self-identification with a product category as a social status also originates from the individual perspective of the consumer, since it is not certain that he/she will identify himself/herself with a product category to which he/she actually "belongs" in a social "class".
 3. The presentation of environmentally and health-conscious behaviour is contained in Table 3, based on which there are environmentally-conscious factors, health-conscious factors and cases where both groups of factors together influence cosmetics purchase decisions.

Table 3: Identification of environmentally and health-conscious factors

I. Environmentally conscious factors	II. Health-conscious factors	III. The combined appearance of environmentally and health-conscious factors
<ol style="list-style-type: none"> 1. Environmentally friendly content of cosmetics 2. Environmentally friendly packaging 3. The impact of the trend of environmental awareness 	<ol style="list-style-type: none"> 1. The health-friendly content of the cosmetics 2. The quality of cosmetics 3. Application form of cosmetics (internal, external) 4. Effect and function of cosmetics on skin and hair (negative, positive) 5. Getting used to product effects 6. Treatment of skin problems with dermocosmetics 7. Trust in cosmetics from the point of view of health awareness 8. The effect of the trend of health awareness 	<ol style="list-style-type: none"> 1. The joint selection of environmentally and health-friendly content characteristics of cosmetics 2. Conscious and non-conscious purchase of environmentally and health-friendly cosmetics 3. The role of the cosmetics market in the selection of cosmetics 4. Function, smell vs. natural/non-natural features 5. Confidence in cosmetics 6. Cosmetics as a symbol 7. Form vs. usable content 8. Natural product sample use

Source: Own research, qualitative phase (IPI), n=20 (2020)

4. Identification of interviewee types

Based on the responses of the 20 interviewees to the interview questions, as well as additional - related to the topic - "what they claim to be and how they act", 12 types emerged, as the environmentally and health-conscious traits in the selection and purchase of cosmetics did not overlap in all cases (Table 4). Of course, these

types do not represent segments, they merely enable the identification of individual type features.

Table 4: Self-declaration of environmentally and health-conscious behaviour vs. decision-making for cosmetics

Group creation	Do you consider yourself environmentally conscious?		Do you consider yourself health-conscious?		Do you make an environmentally conscious decision regarding the purchase and use of cosmetics?		Do you make a health-conscious decision regarding the purchase and use of cosmetics?	
	YES	NO	YES	NO	YES	NO	YES	NO
1.	YES					NO		
2.	YES				YES			
3.			YES					NO
4.			YES				YES	
5.	YES		YES			NO		NO
6.	YES		YES		YES		YES	
7.		NO			YES			
8.		NO				NO		
9.				NO			YES	
10.				NO				NO
11.		NO		NO	YES		YES	
12.		NO		NO		NO		NO

Source: Own research, qualitative phase (IPI), n=20 (2020)

5. Health- and environmentally conscious lifestyle features

Characteristics of the health- and environmentally conscious (positive direction, in short: positive) and non-health- and environmentally conscious (negative direction, in short: negative) lifestyles of the interviewees

- ✓ *Finding solutions to problems (for example, natural vs. artificial);*
- ✓ *Packaging (e.g. pump vs. aerosol);*
- ✓ *Ingredients (for example, chemical vs. natural);*
- ✓ *Packaging (e.g. practical vs. excessive);*
- ✓ *Use, effect, effectiveness, repurchase (for example, excessive makeup vs. necessary cosmetics);*
- ✓ *Willingness to pay extra (for example, for an environmentally friendly product alternative);*
- ✓ *The "forces" deterring the purchase (for example, interest in natural cosmetics vs. the higher price of natural cosmetics);*
- ✓ *Trust, mistrust (for example, misleading product names vs. stricter product control);*
- ✓ *Availability of cosmetics (for example, online vs. physical touch);*
- ✓ *The impact of the trend of environmental and health awareness (for example, purchasing cosmetics from artisanal cosmetic manufactories);*
- ✓ *Environmentally and health-conscious lifestyle (e.g. sports, selective waste collection);*
- ✓ *Conscious purchase of cosmetics (e.g. planned vs. impulse purchase).*

Based on the above 5 points, **H1**. turned out to be true.

3.2.3. Results of focus group interviews

1. Based on the focus group interviews, the factors according to the model also formulated in O5 became identifiable, which were connected to the research topics.
2. Novel factors related to the model factors were also identified, which are included in Table 5.

Table 5: Presentation of the decision-making options for natural vs. non-natural cosmetics according to novel factors related to my own theoretical concept model

Topic (related model factors)	Main decision factor	Related factors
Objective and subjective product properties Processing evaluations, defining criteria related to product purchases	I. A selection from the stores' offer	1. Awareness vs. "randomness" 2. Cosmetic (qualified) ingredients, "-free" 3. External appearance of cosmetics (can be deceiving) 4. The smell of cosmetics 5. The price of cosmetics vs. quality 6. The store's assortment
From purchase intent to purchase action or lack thereof	II. Buying cosmetics	1. Online cosmetics orders 2. Creating a reserve of cosmetics
From purchase intent to purchase action or lack thereof	III. Use of cosmetic services	Use of cosmetic service(s).
Processing evaluations, defining criteria related to product purchases	IV. Use of cosmetics	1. Packaging as a two-way protective function 2. According to the reason for use 3. Texture of cosmetics 4. The expiration date of the cosmetics 5. Quantity used 6. Frequency of use 7. Nature of use (relation to other cosmetics) 8. Comparison and rating of the use of cosmetics 9. Consumers get used to used cosmetics. 10. Whether or not the product is reused by the consumer?
Processing evaluations, defining criteria related to product purchases	V. The effect and effectiveness of cosmetics	1. Recreation, experience, feeling of life, memories 2. Inducing effects
From purchase intent to purchase action or lack thereof	VI. Recommendations	1. Consumer recommendations 2. Manufacturer recommendations

Source: Own research, qualitative phase (FGI), n=30 (2020-2021)

3. Identification of focus group interviewee types

Table 6 contains the variables of the time dimensions of the purchase of natural cosmetics, regardless of the source of purchase of the natural cosmetics, on the basis of which I identified 4 different outputs:

1. Consumers currently do not buy/use natural cosmetics, and they do not plan to buy them in the future, because some factor deters them from buying them, for example higher price, willingness to pay extra, lack of suitable product alternatives, lack of male product alternatives.

2. Consumers currently buy and/or use natural cosmetics, but in the future, due to some changed circumstances, they may not be able to buy and/or use them again, even though they intend to (e.g. job loss, taking out a loan, divorce, death, due to rising prices).
3. Consumers do not currently use and/or buy natural cosmetics, but plan to buy and/or use them in the future.
4. Consumers currently buy and/or use natural cosmetics and plan to buy and/or use them in the future.

Table 6: Variables of the time dimensions of purchasing natural cosmetics

Variable	Buys/uses natural cosmetics.			
	<i>In the present</i>		<i>In the future</i>	
	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
1.		X		X
2.	X			X
3.		X	X	
4.	X		X	

Source: Own research, qualitative phase (FGI), n=30 (2020-2021)

These time dimensions can be further nuanced

- Source of purchase of natural cosmetics (manufactory vs. commercial units, artisanal vs. non-artisanal cosmetics);
- Consumers buy for themselves or someone else, or themselves or another consumer will use the purchased cosmetics, or consumers receive various cosmetics as a gift from another customer.

4. The relationship between the use of natural cosmetics and environmental and health awareness

5 dimensions of this research

1. A feeling of closeness to nature, associations;
2. Natural/chemical
 - a) percentage of ingredients
 - b) composition of packaging materials
 - c) examination of technologies;
3. Search for certification, certificates, logos;
4. Allergenic natural or chemical substances;
5. Willingness to pay extra

The summary of the environmental and health burden (according to the direction of the effect) based on the analysis of the 5 dimensions listed above is contained in Table 7.

Table 7: Impact of natural vs. chemical cosmetics on the environment and health

Dimensions of environmental and health burden			Completely natural cosmetics	Transitional/transit (chemical to natural) cosmetics	Completely chemical cosmetics
1.		To nature proximity associations	100%	0,1%-99,9%	0%
2.	a)	Ratio of natural/chemical ingredients (keeping in the natural direction)			
	b)	Composition of natural/chemical packaging materials (keeping in the natural direction)			
	c)	Ratio of natural/chemical technologies (keeping in the natural direction)			
3.		Natural certification, certificates, logos (keeping in the natural direction)			
4.		Natural/chemical effect vs. allergy/sensitivity/irritation	It depends on individual sensitivity Its detection is experiential, empirical, i.e. through self-observation or professionally using the Epicutan test		
5.		Willingness to pay extra	Yes (both able and willing) - No (willing, but currently unable)		
<i>In summary</i>		Direction of effect (for the burden on the environment and health)	Positive	It goes from negative to positive depending on the ratio of natural/chemical substances	Negative

Source: Own research, qualitative phase (FGI), n=30 (2020-2021)

Based on the above 4 points, the **H2**. proved to be true.

3.2.4. Creating my own model of the cosmetics purchase process based on qualitative research results (own research model)

Compared to the theoretical conceptual model created on the basis of literature research (Figure 1), in the model modified by qualitative research (Figure 2), Consumption/use appeared as a new factor. The following main factors, such as Processing evaluations, defining criteria related to product purchase, Trying and testing a product sample, Choosing another product/alternative, Factors influencing the purchase situation, Purchase, Experience were expanded with different sub-factors, while all other main and sub-factors remained unchanged. The model modified on the basis of qualitative research has therefore become a narrowed model, due to its scope, it only contains the main factors of my own theoretical, conceptual model created on the basis of literature research and the model modified by qualitative research (own research model).

My own theoretical and conceptual model created at the end of the literature review and my own research model created after the qualitative phase (modified model) are similar in terms of both structure and content, taking into account the following modifications

1. My own theoretical conceptual model is vertical and more complex in terms of factors, the modified model has a horizontal and simpler structure, the purchase outcomes (purchase of the selected product, choice of another product/alternative, failure, postponement, rejection of the purchase, experience, repurchase, repurchase rejection) have been combined and, due to the simpler structure, appear in only one place.

2. My own theoretical conceptual model (apart from two cases and points of connection) deliberately did not present the assumed relationship directions and the process(es) that were revealed based on the results of the qualitative research. These assumed directions allowed the structuring of the process that presents the purchase of cosmetics, which was described on the basis of subsequent quantitative research.

3. In the basic concept of my own theoretical conceptual model, I focused exclusively on the purchase of cosmetics, but as a result of the qualitative research it became clear to me that the interpretation of the role of cosmetics consumption and use cannot be without the modified concept, i.e. my own research model. The first three primary research phases highlighted that the exploration of the relationship between consumption and purchase, especially with regard to the factors of environmental and health awareness that influence both processes together, is unavoidable when investigating the problem. The correspondingly modified concept still focuses on the purchase process, but displays (names) both the consumption and use of cosmetics and the factors that determine it (information input, beliefs, norms, attitude, lifestyle, way of life, product properties) in relation to several model factors. Therefore, my own research model does not attempt to present the process of purchase and consumption together (considering that a joint analysis of the two processes would be impossible due to their complexity), however, it describes the interpretation focusing on the steps of the purchase decision taking into account the influencing role of the consumption and use of cosmetics.

4. My own theoretical conceptual model also included cosmetic services (hairdresser, beautician, hand and foot care), but I simplified my own research model to product purchases, which had the following reasons:

- cosmetic services, with the exception of hairdressing, were used only by women, so the exploration of them using qualitative sources was unsuccessful;
- as another methodological reason, it can be mentioned that the examination of contents related to cosmetic services was only part of the topic of individual/paired and focus group interviews, and could not be examined with unstructured observation due to the nature of the method;
- due to their nature and complexity, the use of cosmetic services is markedly different from the process of purchasing (and consuming, using)

cosmetic products, so their presentation and more extensive analysis in a model is far beyond the scope of this dissertation.

5. From the processing of literature and secondary research to the conduct and analysis of qualitative research, the research went through simplification phases that provided serious experience both in terms of the conceptualisation of the subsequent quantitative research and its operationalisation. Compared to my own theoretical and conceptual model, the focus of my own research model has been modified in such a way that it supports the preparation of the quantitative research as optimally as possible.

6. Accordingly, the content and title of my own research model (Figure 2) was modified as follows compared to my own theoretical conceptual model (Figure 1): "Own model of the cosmetics purchase process (based on the results of the qualitative research – research model)".

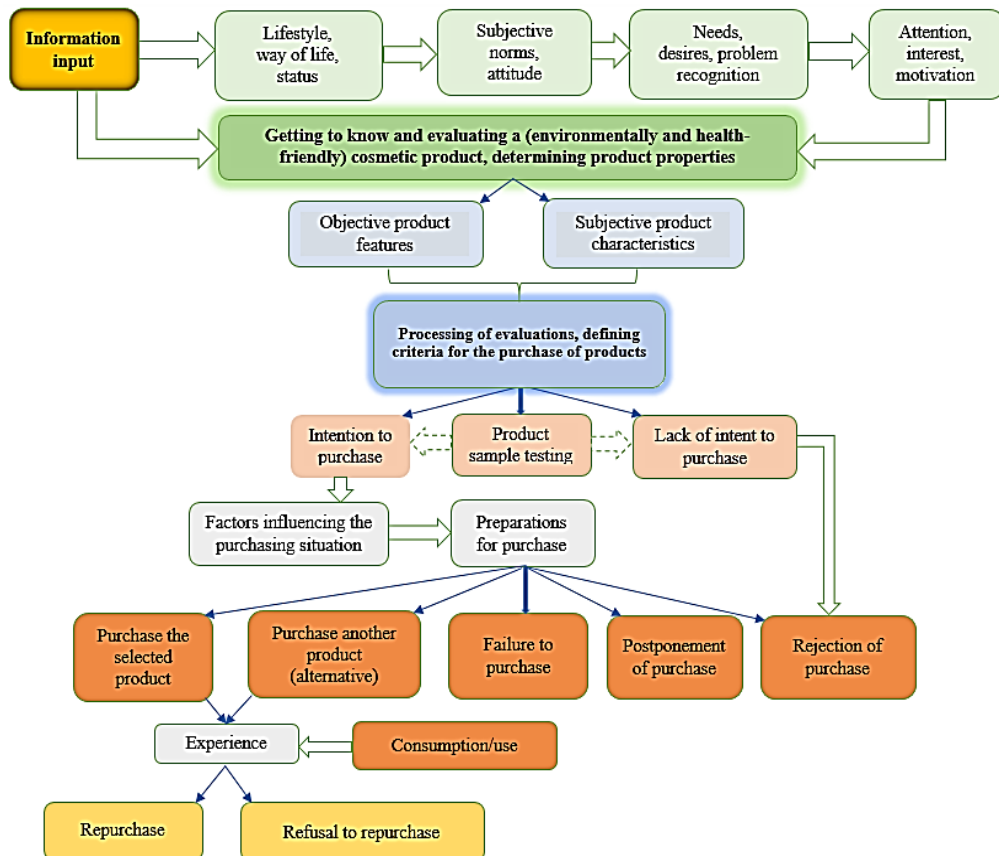


Figure 2: Own model of the cosmetics purchase process (based on the results of the qualitative research - research model)

Source: Own research (n=143) (2021)

3.3. The results of the quantitative research

3.3.1. Relationships between purchase and use frequency of cosmetics

The cross tabulation results ($p < 0.05$) related to the frequency of purchase and use of cosmetics (Q1-Q2) summarised on the basis of Table 8 are as follows:

1. In the case of certain product categories, consumers associated them with other product categories, despite the fact that the questionnaire presented the different cosmetic product categories, but presumably they did not read the instructions well, or in everyday life they identify cosmetics belonging to other functional classifications with the marked product types. Another reason may be that, in the public mind, these products do not fall into the same category as in the case of the professional/literary categorisation. For example, consumers can understand make-up products to include all colouring products, regardless of the recommendations for body parts, which can also be the basis for categorisation, but the questionnaire also aimed to link individual cosmetics to different body parts.
2. Consumers can use a cosmetic category for a different purpose, function, or body part than its original purpose, which makes it a multi-functional product(s).
3. The different body parts are parts of the body as a whole, therefore the cosmetics manufactured and used for specific body parts can be used by consumers on different body parts due to their certain beneficial properties, even overlapping with the care of the original body parts.
4. Consumers buy more of certain cosmetics at the same time, or have a reserve of them at home, and only supplement their purchase with one or more of the same or similar products, or with different types of products, and they can also receive these products as gifts (for example, very frequent use vs. medium frequency use buying).
5. In some cases, a member of the family buys cosmetics for the respondent (for example, the consumer never buys make-up products, but rarely uses, for example, self-tanning sun products, which he/she classifies as make-up products, because this type of cosmetics lends colour to the skin).
6. Cosmetics manufactured for a specific body part can also be used by the consumer for the care and treatment of other body parts, for example in order to reduce expenses for cosmetics.

Table 8: Correlations between the use (U.) and purchase (P.) of different types of cosmetics (Q1-Q2)

	P. (Q2.)	Q2.1. Hair	Q2.2. Skin	Q2.3. Face	Q2.4. Body	Q2.5. Foot	Q2.6. Hand	Q2.7. Nail	Q2.8. Teeth and mouth	Q2.9. Fragrance	Q2.10. Makeup	Q2.11. Shaving	Q2.12. Sun-bathing
U. (Q1.)													
Q1.1. Hair													
Q1.2. Skin													
Q1.3. Face				X	X		X	X			X		
Q1.4. Body				X	X		X				X		
Q1.5. Foot				X	X	X	X	X			X		
Q1.6. Hand				X	X		X				X		
Q1.7. Nail				X	X	X		X			X		
Q1.8. Teeth and mouth													
Q1.9. Fragrance													
Q1.10. Makeup						X		X			X		X
Q1.11. Shaving												X	
Q1.12. Sun-bathing											X		X

Source: Own research, quantitative phase, online survey (2021), n=1,439, measurement level=nominal scale, $p < 0.05$ (The gray fields indicate the absence of significant relationships, the coloured cells with X's indicate the revealed significant relationships.)

Both foot care, nail care, and make-up products are typically "women's cosmetics", so they tend to be used more by women, and nail care and make-up products are bought more by women.

- **H3.** The frequency with which consumers purchase and use cosmetics for multiple purposes (functions) shows a correlation. **Accepted.**

3.3.2. Characteristics of natural vs. chemical cosmetic brands

Based on the results of the univariate frequency statistics of the surveys, the following were identified as natural cosmetics:

- **Yves Rocher (41,2%)**
- **Nature Box (59,1%)**

The respondents classified the following as chemical cosmetics:

- Nivea (57,8%)
- Fa (65,1%)
- Dove (56,3%)
- **Caola (35,6%)**
- Garnier (56,8%)
- L'Oréal Paris (63,4%)
- Schwarzkopf (68,7%)
- **Vichy (41,1%)**
- **Helia-D (30,5%)**

It follows from all of this that the respondents (in four cases marked with bold italic letters, just under 50%) correctly identified the cosmetics of the natural-chemical line, although it should be noted that Yves Rocher and Nature Box cosmetics also contain certain chemical materials, but it is true that, for example, advertisements highlight Nature Box as an Ecocert-certified "natural" brand. And Yves Rocher is a French cosmetics brand with plant-based ingredients. In any case, it is true that, based on the advertisements, these are natural cosmetics in the public's mind. The big brands of chemical cosmetics all have natural product lines, even though these cosmetics also contain chemicals. Vichy dermocosmetics are advertised as natural, e.g. due to their mineral content and medicated water components, although they actually contain chemical substances as well. There are cosmetic brands that are also branded with the manufacturers, for example, Schauma shampoos have the words "Schauma" on the bottle and the Schwarzkopf logo, the "black head" above the photo/image. Nivea Beiersdorf product, Fa Henkel Beauty Care, Dove Unilever, Caola Caola Co.Ltd., Garnier Garnier-L'Oréal, L'Oréal Paris L'Oréal, Schwarzkopf Schwarzkopf-Henkel Beauty Care, Vichy Vichy Laboratoires, Yves Rocher Yves Rocher, Helia-D Helia-D Ltd. and Nature Box are produced by Schwarzkopf. Consumers cannot always distinguish brands from manufacturers and vice versa.

- **H4.** Consumers can identify natural vs. non-natural cosmetic brands based on their ingredients. *Rejected.*

3.3.3. Description of the factors of cosmetics purchases in stores with the time spent on the purchase and expenses

Using the one-way analysis of variance (ANOVA table: $p < 0.05$) as a test method, I obtained the following results:

1. The duration of the weekly purchase

Looking at the averages, customers make impulse purchases mostly during the weekly small shopping trip, which takes 31-45 minutes (average=0.5). Customers use various tools and personal assistance in the store during their weekly small

shopping trips of 46-60 minutes (average=0.7). The reason for this time interval is uncertainty in product selection, searching for cosmetics, not finding them.

2. The duration of the monthly purchase

During the monthly shopping, which takes 61-90 minutes (average=0.5), customers also make impulse purchases. They shop consciously during purchases lasting less than 30 minutes (average=0.13). Less time suggests that they know exactly what cosmetic products they want to buy.

3. The amount spent on weekly purchase

Looking at the size of the averages, the amount spent on weekly shopping is 5,001-7,000 HUF (average=0.48), from which customers make impulse purchases. The highest amount spent on small shopping per week is higher than 10,000 HUF (average=0.48), and in this case tools and personal assistance are used in the store. The highest amount spent on small shopping per week is 1,001-2,000 HUF (average=0.24), from which customers consciously buy.

4. The amount spent on monthly purchase

Based on the averages, 20,001-30,000 HUF intended for monthly „big” shopping is the most prominent (0.3), from which customers make impulse purchases. The 15,001-18,000 HUF (average=0.2) monthly spending on cosmetics for shopping has an effect on the getting to know cosmetics before the purchase decision, which indicates a considered purchase. The amount intended for the monthly purchase of cosmetics is 8,001-10,000 HUF (average=0.12), which is aimed at conscious shopping.

Table 9 provides a summary of the relationship between cosmetics purchases in stores and the duration and amount spent of weekly and monthly cosmetic purchases based on the 4 points above:

- The influence of impulse purchases in the duration of weekly „small” purchases is 31-45 minutes and in terms of expenses 5,001-7,000 HUF, while in the duration of monthly „large” purchases it is 61-90 minutes and 20,001-30,000 HUF.
- It takes 46-60 minutes and more than 10,000 HUF to use the help for weekly shopping.
- Acquiring knowledge about cosmetics before purchasing cosmetics is 15,001-18,000 HUF in terms of the monthly purchases.
- The conscious purchase of cosmetics in terms of the amount spent on weekly purchases is 1,001-2,000 HUF, with regard to the duration of monthly purchases, less than 30 minutes and the amount spent is 8,001-10,000 HUF.

Table 9: Description of the principal components of cosmetics purchases in stores with the duration and amount of weekly and monthly cosmetics purchases (conceptualisation)

Principal components	Weekly purchase		Monthly purchase	
	Duration (minutes)	Amount (HUF)	Duration (minutes)	Amount (HUF)
1. <i>Impulse purchase</i>	31-45	5.001-7.000	61-90	20.001-30.000
2. <i>Elements of decision support</i>	46-60	>10.000		
3. <i>Product property control</i>				
4. <i>Acquiring knowledge about cosmetics before purchasing cosmetics</i>				15.001-18.000
5. <i>Conscious purchase</i>		1.001-2.000	< 30	8.001-10.000
6. <i>Purchase method</i>				
7. <i>Preference for own-brand cosmetics</i>				
8. <i>Purchase in a specific store</i>				

Source: Own research, quantitative phase, online survey (2021), n=1,439, measurement level=1-6 interval scale

Based on Table 9, the two main pillars of the 8 principal components, as I have already presented, are impulse vs. conscious purchase, which is supplemented and shaded by the other principal components, as they influence the execution of the purchase either on an emotional basis or consciously. Decision support helps to "guide" uncertain purchases, which involves getting to know the product more closely and collecting information. Product property control and acquiring knowledge about cosmetics before purchasing cosmetics either strengthen or weaken the purchase intention. The personal or social purchase method and the purchase in a specific store refer to the way the purchase is made. Own-brand cosmetics are the own products of cosmetic market participants who produce cosmetics under their own brand names, whose product properties can also be scrutinised by customers, and which can also be purchased without prior decision or consciously.

It can be concluded that women aged 18-45, who are not the main breadwinners of the family, spend more time and money on both weekly and monthly impulse purchases, although the longer time spent and the higher purchase amount are also true for men who are not single. Emotions and the mood of the moment, as well as the attractive appearance of a cosmetic, have a strong influence on the selection and purchase of cosmetics for women who are open to impulse purchases. For the marketing profession, this means that the subjective product properties, the layout of the shelves, and the attractive appearance of the product play a significant role, since customers can be more influenced by these tools in making their purchase decisions.

The role of the use of personal and material assistance as a confirmation of decision-making is also significant, so that uncertain male customers aged 36-45 are sure that they need a particular cosmetic or really want the selected cosmetic, but the acquiring knowledge about product properties before purchasing cosmetics, which mostly characterises college-educated women, i.e. the different

product information on the packaging, as well as shopping catchphrases, also lead to larger purchases. For the marketing profession, the importance of this lies in the fact that, from the retailer's side, the human factor also has a great impact on cosmetics purchase decisions. In addition to these, the packaging, placement and product information of cosmetics also play a prominent role in the sale of cosmetics.

Based on the results of 3.3.3 so far a

- **H5.** Factors that characterise cosmetics purchases in stores can be grouped and differentiated by the length of time spent on the purchase and the size of the expenditure. *Accepted.*

3.3.4. Description of the factors of environmentally and health-conscious cosmetics purchases with the time spent on the purchase and the expenses

I again resorted to the one-way analysis of variance (ANOVA table: $p < 0.05$) and came to the following results:

1. The duration of the weekly purchase

Looking at averages, weekly cosmetics purchases lasting less than 5 minutes (0.24) influence the rejection of the use of excessive make-up products and unnecessary cosmetic packaging, i.e. extra environmental and health burden. The reason for this may be that customers know exactly what cosmetic products they want to buy, and there are no "overpackaged" products among them, and if they do use makeup products, they do not overdo it.

2. The duration of the monthly purchase

Looking at the averages, monthly cosmetics purchases of 30-45 minutes (0.24) influence the healthy and preventive purchase and use of cosmetics. Consumers spend time looking for cosmetics that represent a high level of quality in terms of their use and are healthy for their skin type.

3. The amount spent on weekly purchase

The average of the 1,001-2,000 HUF weekly spending category (0.2) is the highest, i.e. it has the greatest effect on rejecting the extra environmental and health burden, which is presumably not directed at the purchase of these products.

4. The amount spent on monthly purchase

4,501-5,000 HUF represents the highest average (0.27) during monthly cosmetics purchases, affecting the rejection of the extra environmental and health burden. These 152 consumers show health-conscious cosmetics consumer behaviour and do not buy cosmetic products that contain too much packaging material and do not use such products similarly to using excessive makeup products. The averages for $\leq 4,500$ HUF and 5,001-8,000 HUF (0.21, 0.18) are not far behind the 4,501-

5,000 HUF average, which is the same opinion of another 311 (144+167) consumers represents (Table 10).

Table 10 provides a summary of the relationship between environmentally and health-conscious cosmetic purchases and the duration and amount spent of weekly and monthly cosmetic purchases based on the 4 points above:

- Consumers spend 30-45 minutes on monthly purchases of healthy and preventive cosmetics.
- The rejection of extra environmental and health burden is the main characteristic of weekly purchases of less than 5 minutes, on which customers spend 1,001-2,000 HUF, and of monthly purchases, on which they spend less than 4,500 HUF to a maximum of 8,000 HUF.

Table 10: Description of the principal components of environmentally and health-conscious cosmetics purchases with the duration and amount of weekly and monthly cosmetics purchases (conceptualisation)

Principal components	Weekly purchase		Monthly purchase	
	Duration (minutes)	Amount (HUF)	Duration (minutes)	Amount (HUF)
1. Environmentally conscious cosmetics purchase				
2. Health awareness, prevention			30-45	
3. Social and individual responsibility				
4. Economical and practical cosmetics purchase				
5. Rejection of extra environmental and health burden	<5	1.001-2.000		4.501-5.000 <=4.500 5.001-8.000

Source: Own research, quantitative phase, online survey (2021), n=1,439, measurement level=1-6 interval scale

Among the five principal components, environmental and health awareness are the two most important "pillars", which are complemented and enhanced by social and individual responsibility, the economical and practical purchase of cosmetics, and the rejection of extra environmental and health burdens.

Based on Table 10, health-conscious cosmetic purchases are mostly characterised by women, who spend 30-45 minutes on this during their monthly purchases. The rejection of the extra environmental and health burden is most characteristic of men, who spend less than 5 minutes on their weekly purchases and spend little on both their weekly and monthly cosmetics purchases. Compared to women, men only reject excessive and unnecessary packaging and the use of cosmetics, so they prefer economical and practical packages. Women are primarily open to environmental and health awareness, so the cosmetics industry could influence the environmentally and health-conscious decisions of male cosmetic buyers by developing male product versions in this direction and by expanding the product range.

Based on the above

- **H6.** The environmentally and health-conscious factors that characterise cosmetics purchases can be structured and described with the help of the time spent on the purchase and the size of the expenditure. *Accepted.*

3.3.5. Customer groups based on factors that characterise cosmetics purchases in stores

Cluster 1: Conscious (373 people, 26%)
Cluster 2: Open (198 people, 14%)
Cluster 3: Influenceable (389 people, 27%)
Cluster 4: Indifferents (168 people, 12%)
Cluster 5: Searchers (311 people, 21%) (Figure 3)

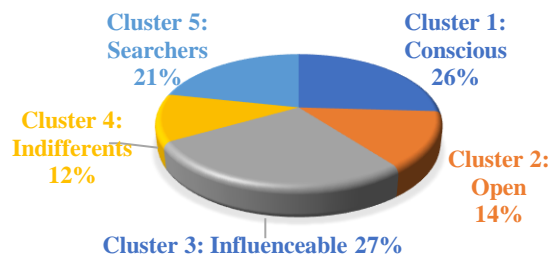


Figure 3: Percentages of clusters of cosmetics purchases in stores (Q7)

Source: Own research, quantitative phase, online survey (2021), n=1,439, measurement level=1-6 interval scale

Examining the cross-tabular correlations ($p < 0.05$) (on a nominal scale) of the subsamples (clusters) and the various statements that can be marked as answers to the questions, I came to the following conclusions when describing the clusters:

The Conscious (cluster 1) are mainly women aged 26-35 who have graduated from a college or university, who make deliberate decisions and

- for whom the texture (27.2%) is the most important factor in the use of cosmetics (Q3), since a good texture is also an expression of quality, which this group of consumers consciously seeks;
- They rarely (44.8%) use cosmetics related to sunbathing, the reason for which may be that they do not trust the protection of the UV filter of these products due to their possible fear of UV radiation, or they do not like these products, or they only use them seasonally, for example, only for sunbathing in the summer, but not or only rarely for self-tanning (Q1).

The Open (cluster 2) are mainly women aged 36-45 who graduated from college or university and are interested and

- for whom the effectiveness of ingredients (76.8%), function (79.8%), appearance, packaging (27.8%) and environmentally friendly nature (33.8%)

are most important when using cosmetics (Q3). Several factors influencing usage may be important to them at the same time, depending on their openness. These include the internal and external properties of cosmetics on the one hand;

- Natural cosmetics are the most familiar to them (79.8%), as their openness is also reflected in their interest in cosmetics and the acquisition of knowledge (Q9);
- The use of natural cosmetics (82.8%) has become a part of their lifestyle, as they incorporate their use into their everyday life (Q11);
- They buy and use natural cosmetic products (74.7%) due to health awareness, disease avoidance, and prevention (Q11);
- Various discounts (88.9%), loyalty cards (85.9%), brands (83.8%), own brands (74.7%) and texture (49.0%) influence their cosmetics purchases (Q3). Discounts and loyalty cards are shopping benefits provided by the store. Searching for brands, own brands and texture involves some awareness;
- They have not yet been disappointed in the quality of natural cosmetics (71.2%) (Q11), as they prefer them because of some beneficial feature, which in this case is quality as attractiveness;
- The very frequent use of make-up products (76.8%) is characteristic of this group in addition to Searchers (Q1) because they like to search and try different colours and combinations on their skin due to the experience of variety and creativity, in which they can discover and better they can also know themselves;
- The average purchase frequency of personal care products (72.2%) is typical for this group, in addition to the Influenceable and the Searchers. Backgrounds can be interest in personal care cosmetics, trying out various products, searching for new things and the influence of advertising (Q2);
- They are also characterised by a medium purchase frequency of nail and nail bed care products (62.1%), as this group in particular is interested in different nail care and innovative product versions of these products (Q2).

The group of Influenceable (cluster 3) consists predominantly of 56-65-year-old women who have a higher education and tend to be influenced by various marketing tools regarding their purchase decisions.

- Their use of cosmetics is based on prices (14.9%), discount prices (15.2%), discounts (21.3%), loyalty cards (23.4%), own brands (35.7%), it is determined by ease of purchase, availability (18.5%), the store's selection (21.1%) and environment (17.7%) (Q3). These factors include the benefits provided by the business, which also have an influencing power for this group;
- The average purchase frequency of personal care products (71.7%) is also characteristic of this group in addition to Open and Searchers. Underlying reasons may be interest in personal care cosmetics, trying out a variety of products, searching for novelties and the influence of advertising (Q2);

- They also prefer the moderately frequent purchase (50.4%) of tanning and self-tanning and after-sun products (Q2), as this group is more likely to believe the "authentic word" of advertisements, product recommendations and advertisements regarding tanning products.

The group of Indifferents (cluster 4) includes especially men aged 18-25 and over 65 who have graduated from high school or vocational high school and are at the beginning of their careers or are already in their retirement years,

- and ease of purchase and availability (18.5%) is important to them in terms of using cosmetics (Q3). This group is not interested in cosmetic products, if they buy for themselves or others, they want to do it as soon as possible, and also to validate their use.

The Searchers (cluster 5) are usually women aged 46-55 who have a college or university degree and are uncertain about their cosmetics purchase decisions due to the countless impulses related to cosmetics.

- Their use of cosmetics is influenced by the price of cosmetics (14.1%), brand (55.9%), function (79.4%), fragrance (80.1%), environmentally and health-friendly nature (33.4%, 53.7%) (Q3). These customers search for and use cosmetics based on different product attribute benefits, but are not yet sure which one is best for them;

- Their purchases of cosmetics are influenced by the price of the cosmetics (95.2%), discount price (92.3%), effectiveness of the ingredients (66.9%), function (65.0%), fragrance (60.1%), exterior its appearance and packaging (84.6%), its environmentally and health-friendly nature (81.4%, 78.5%), its ease of purchase and availability (85.5%), and the store's selection (85.5%) and its environment (82.6%) as well (Q3). They may prefer several product features at the same time, which also reflects some uncertainty in their cosmetics purchasing behaviour;

- They usually find out about cosmetic products from the store's offer (61.7%) (Q4), as they like to browse the shelves. The stores' offer makes the different cosmetics physically tangible for them, which they can touch, smell, and get to know them personally, which thus becomes the most direct source of information;

- The very frequent use of make-up products (76.8%) also characterises this cluster (Q1) in addition to the Open, because they like to search and try out different colours and combinations on their skin due to the experience of variety and creativity in which they can explore and better they can also get to know themselves;

- In addition to the Open and the Influenceable, this cluster is also characterised by a moderate purchase frequency of personal care products (74.3%). Its background can be interest in personal care cosmetics, trying out various products, searching for new things and the influencing power of advertising (Q2);

- The moderately frequent purchase of makeup products (67.5%) is preferred (Q2) because they like to discover colourful, varied cosmetics and various discounts, but it is also possible that they are only interested in certain product variants or colours.

With regard to the clusters of purchases in stores, based on the above results, it can be concluded that Conscious customers shop with a specific purpose, they know in advance what cosmetics they are looking for, i.e. they know their needs exactly. The Open ones do not shy away from the range of cosmetic products, they are happy to try new products as well as "retro" products. Influenceable customers can be "encouraged" to make purchase decisions in favour of one of the cosmetic product lines. The latter two groups can also be open to impulse purchases. Indifferents are not interested in cosmetics. Searchers are uncertain, they do not yet know specifically what cosmetics they want to buy. They could be motivated to buy products by "deploying" marketing tools, such as advertisements, colourful publications, product trials, and promotional gifts.

Based on the above results

- **H7.** People who buy cosmetics in stores can be segmented based on factors that characterise the purchase (and use) of cosmetics, and these cosmetic customer groups can be distinguished from each other based on the frequency of purchase and use of cosmetics. *Accepted.*

3.3.6. Customer groups based on the factors that characterise environmentally and health-conscious cosmetics purchases

Cluster 1: Environmentally and health-conscious (330 people, 23%)

Cluster 2: Hesitators

(279 people, 19%)

Cluster 3: Sensitive to environmental problems

- demanding of

themselves

(312 people, 22%)

Cluster 4: Indifferents

(102 people, 7%)

Cluster 5: Open to action

(416 people, 29%)

(Figure 4)

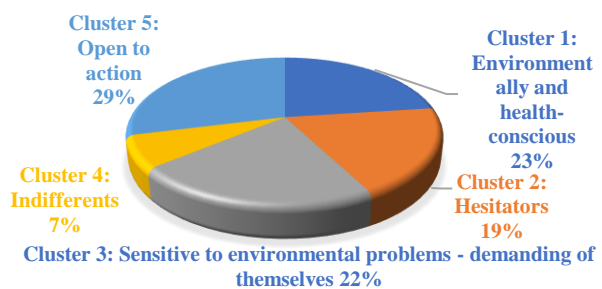


Figure 4: Percentages of clusters of environmentally and health-conscious cosmetics purchases (Q12)

Source: Own research, quantitative phase, online survey (2021), n=1,439, measurement level=1-6 interval scale

Examining the cross-tabular correlations ($p < 0.05$) (on a nominal scale) of the subsamples (clusters) and the various statements that can be marked as answers to the questions, I came to the following conclusions when describing the clusters:

Environmentally and health-conscious (cluster 1) are typically women aged 36-45 who have graduated from college or university. Prudence is the basis of their decisions to buy and use cosmetics.

- Their use of cosmetics is based on the search for the effectiveness of the ingredients (70.9%), the function (73.9%), the texture (77.0%), the environmentally and health-friendly nature (39.4%, 49.4%) affects (Q3). They consciously look for cosmetics, as texture is one of the quality criteria of cosmetics, as well as effectiveness and function. Environmentally and health-friendly nature is related to individual and social responsibility;
- Their cosmetics purchases are influenced by discounts (87.9%), loyalty cards (79.1%), brands (81.8%), own brands (67.9%), the effectiveness of the ingredients (65.2%), the function (57.3%), external appearance, packaging (81.5%), environmentally and health-friendly nature (82.4%, 80.9%), and the environment of the store (77.9%) (Q3). The different benefits offered by the stores and the product selection also contribute to the conscious selection of cosmetics;
- They know (82.4%) and like natural cosmetics (90.3%) (Q9);
- They currently buy and use natural cosmetics and plan to buy and use them in the future (82.7%) (Q9);
- The use of natural cosmetics has become part of their lifestyle (91.2%) (Q11). The reason for this may be that natural cosmetics are natural in their composition and/or packaging, i.e. they have a positive effect on both the environment and the health of their consumers, which is also reflected in their lifestyle;
- They prefer natural cosmetics to chemical cosmetics (88.8%) (Q11);
- They are refreshed physically, mentally and spiritually by using natural cosmetics (89.4%) (Q11), since their use also includes the role of recreation and holistic refreshment, which means relaxation and recharge for the users of this group;
- They don't want to be sick, so they also buy and use natural cosmetics for preventive purposes (84.5%) (Q11);
- Their dermatologist/cosmetologist also prefers natural cosmetics (84.2%) (Q11), i.e. they confirm and support the beneficial properties of natural cosmetics and their role in promoting healing;
- Environmentally and health-conscious consumers feel good and pampered when they use natural cosmetics (85.8%) (Q11). The use of natural cosmetics can have a positive effect on its users similar to recreational experiences;
- According to their opinion, natural cosmetics are constantly renewed (75.8%) (Q11), so their innovative nature can also be attractive to

environmentally and health-conscious customers and consumers. The expansion of the natural cosmetics product range therefore creates new opportunities in terms of purchase and use;

- They trust natural cosmetics more than chemical cosmetics (89.4%) (Q11), which can also be attributed to their natural ingredients and/or packaging materials. *The reason for trust in natural cosmetics is that customers and consumers are looking for nature and naturalness, which also confirms the related results of focus group research (3.2.3);*
- They strive to ensure that their family members also use natural cosmetics (85.8%) (Q11), therefore referrals and expanding the circle of users play a significant role;
- Based on their opinion, natural cosmetics are the safest type of cosmetics (87.3%) (Q11), especially if their ingredients are natural and certified (e.g. Ecocert), their packaging materials are made of natural materials and come from a legally clean place;
- They have not yet been disappointed in the quality of natural cosmetics (81.8%) (Q11), as they can also qualify the product itself or its ingredients (e.g. Ecocert);
- They are always happy to buy natural cosmetics again (87.0%) (Q11). For environmentally and health-conscious consumers, the use of natural cosmetics is not a one-time event, but a permanent choice.

Hesitators (cluster 2) are a group of 56-65-year-old women with higher education who

- discount prices (18.6%), discounts (22.2%), loyalty cards (21.1%), own brands (33.7%), and the store's selection (26.9%) are typical for cosmetics use (Q3). They choose and use their cosmetic products according to the benefits provided by the stores, but it is not always clear what characteristics they prefer the selected cosmetics on, which have an indirect effect on their consumer behaviour;
- The purchase of cosmetics is mostly influenced by the texture (49.1%) and fragrance (56.3%) (Q3). It is important for the group that they like to examine attractive product features through sensory experience, which facilitates their purchase decisions.

The group of Sensitive to environmental problems - demanding of themselves (cluster 3) consists of women aged 26-35 who have graduated from college or university. These are young adults who are at the beginning and middle of their personal and professional lives, so good looks are important to them.

- Their use of cosmetics is influenced by the brands (52.9%), the effectiveness of the ingredients (70.2%), the texture (76.6%) and the fragrance (78.2%) (Q3). Since they are demanding of themselves, they are also more open to these product features;

- Prices (95.2%), discount prices (90.4%) and store selection (82.7%) (Q3) mainly influence their cosmetics purchases, as they like to get their cosmetics at the right price and product range.

The Indifferents (cluster 4) are men aged 18-25 or over 65 who have a high school or vocational high school, vocational training institute or primary school education, or less.

- Their use of cosmetics is influenced by prices (16.7%), external appearance and packaging (23.5%), ease of purchase/availability (28.4%), and the environment of the store (22.5%) (Q3) . Men who are too young and at the end of their lives may be impatient and uninterested when it comes to cosmetic products, as they do not like to search for cosmetics for a long time, therefore the use of cosmetics is particularly influenced by the ease of purchase of cosmetics and the fact that they are easily they find;
- Their cosmetics purchases are predominantly influenced by fragrance (56.9%) (Q3). The testers in stores can be used to test the smell of perfumes, but of course cosmetics that do not come with sealed packaging, such as shampoos and deodorants, can also be smelled.

The Open to action group (cluster 5) consists of women aged 46-55 who have graduated from college or university.

- The main factors influencing their use of cosmetics are the effectiveness of the ingredients (70.0%) and the texture (76.4%) (Q3). There are also two quality criteria;
- Their purchases of cosmetics are influenced by ease of purchase and availability (82.0%). The availability and easy purchase of cosmetics encourages the members of this group to act quickly, i.e. to buy, which can be explained by their busy schedule and lack of time.

Examining environmental and health awareness, we again found a conscious group similar to the conscious cluster of shoppers in stores. For these customers, the protection of both their environment and their health is extremely important, so they plan their cosmetics purchase decisions in accordance with this criterion. The Hesitators have not yet decided that they will live environmentally and health-consciously and make a cosmetic purchase decision accordingly. Customers who are sensitive to environmental problems, for whom care is one of the basic criteria for health, view the deterioration of the environment with concern. Indifferent people are not open to environmental and health awareness, on the contrary, Open to action, those who are ready to do something to protect their environment and health, and accordingly try to be open to environmentally and health-friendly cosmetic products. For example, advertisements, attractive product placements, small gifts and discounts can also provide them with motivational help.

Based on the above results,

- **H8.** People who buy cosmetics in stores can be segmented based on the environmentally and health-conscious factors that characterise cosmetic purchases, and these groups of cosmetic customers can be distinguished from each other based on the frequency of purchase and use of cosmetics.
Accepted.

3.3.7. Relationships between the examined cosmetic customer segments

The purpose of the cross-tabulation ($p < 0.05$) examination of the relationships between the clusters of the two cluster structures (purchases of cosmetics in stores, environmentally and health-conscious cosmetics purchases) was to determine how and to what extent the clusters of these structures correspond to each other, i.e. whether they can be explored at all common characteristics between different customer groups. In both cluster structures there is the group of Indifferents, the reason for which is that there are consumers who do not initially show an interested attitude towards cosmetics purchases, which can appear both in stores and in terms of environmentally and health-conscious cosmetics purchases (the two cluster structures show a connection with each other), and only in relation to purchases of cosmetics that are environmentally and health-conscious, or only in stores.

The cross-tab correlations (Q7-Q12) ($p < 0.05$) between shopping in stores and environmentally and health-conscious cosmetics purchases are as follows:

- Sensitive to environmental problems – demanding of themselves (Q12) are Conscious (Q7) (52.6%) too;
- Those who are Environmentally and health-conscious (Q12) are also Open (Q7) (38.5%);
- The Hesitators (Q12) are also Influenceable (Q7) (59.9%);
- Those who are Indifferents to purchasing cosmetics in stores (Q12), are also Indifferents to purchases of environmentally and health-conscious cosmetics (Q7) (63.7%), and
- Those Open to action (Q12) are also Searchers (Q7) (36.3%) (Figure 5).

Table 11: Correlations between clusters of in-store purchases and environmentally and health-conscious cosmetics purchases (Q7-Q12)

	Q12	1. Environmentally and health-conscious	2. Hesitators	3. Sensitive to environmental problems – demanding of themselves	4. Indifferents	5. Open to action
Q7						
1. Conscious				52,6% (164 people)		
2. Open		38,5% (127 people)				
3. Influenceable			59,9% (167 people)			
4. Indifferents					63,7% (65 people)	
5. Searchers						36,3% (151 people)

Source: Own research, quantitative phase, online survey (2021), n=1,439, measurement level=1-6 interval scale, cross-correlations=nominal scale, cross-tabulation analyses, p<0.05

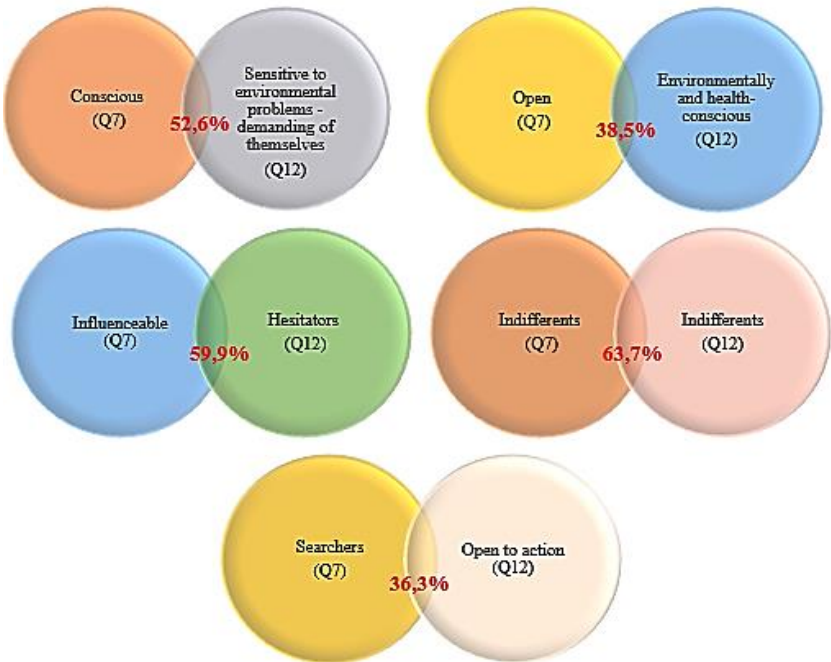


Figure 5: Relationships between clusters of in-store purchases and environmentally and health-conscious cosmetics purchases

Own research, quantitative phase, online survey (2021), n=1,439, measurement level=1-6 interval scale, cross-correlations=nominal scale, cross-tabulation analyses, p<0.05

The 5 clusters of purchases of cosmetics in stores (Q7) and the 5 clusters of environmental and health awareness (Q12) were included as either dependent or

independent variables, in both analyses a cross-tab correlation was shown between the same two clusters in pairs ($p < 0.05$), namely:

1. Environmentally and health-conscious female shoppers aged 36-45 with higher education who are Open to purchasing cosmetics in stores (and vice versa) primarily consider the effectiveness, function and environmentally friendly nature of the ingredients as decision criteria when using cosmetics. The environmentally friendly nature is also reflected in the fact that they know and buy, and also use natural cosmetics as part of their lifestyle, especially for prevention. They have not yet been disappointed in the quality of natural cosmetics, which is why the environmentally friendly nature, efficiency, and function of this type of cosmetics are emphasised to them. When purchasing cosmetics, they prefer various discounts and loyalty cards in order to be able to get certain benefits for the desired (natural) cosmetics, which they identify on the basis of brands and own brands.

2. Those 56-65-year-old female customers with a higher education who are uncertain about environmental and health awareness issues, are Hesitators, and can be Influenced (and vice versa) by the cosmetic offer of the stores. The use of cosmetics is influenced by discount prices, discounts, loyalty cards, and own brands, all of which include the purchase and use of cosmetics at a more favourable price. The range of stores also provides support for all of these with their range of cosmetics.

3. Those 26-35-year-old female customers with a higher education who are Sensitive to environmental problems and demanding of themselves are also Conscious (and vice versa) when they buy cosmetics in stores. Their point of connection is that both clusters prefer the texture of cosmetics as one of the criteria of quality when using cosmetics, since an inappropriate texture provides them with more difficult application, absorption and effectiveness.

4. Those male customers aged 18-25 or over 65 who have completed high school or vocational high school at the most, who are Indifferent to environmental and health awareness issues, are also Indifferent to buying cosmetics in stores (and vice versa). The common point of intersection of these two sets in relation to the use of cosmetics is the easy purchase and availability of cosmetics, which means that these customers want to "finish" the purchase of cosmetics as soon as possible.

5. Those 46-55-year-old female buyers with a higher education who are Open to taking action on environmentally and health-conscious issues are happy to search (Searchers) in this direction among the shelves of stores selling cosmetics (and vice versa). The common point of intersection of these two sets in relation to the use of cosmetics is the easy purchase and availability of cosmetics, which means

that these customers, despite the fact that they are happy to search, also want to easily see the range of cosmetic products.

The relationships ($p < 0.05$) between the two cluster structures (purchases of cosmetics in stores, environmentally and health-conscious cosmetics purchases) can be summarised based on Table 11 and Figure 5 as follows: consumers who Consciously shop in stores are mostly Sensitive to environmental problems, and they are also demanding of themselves, which is manifested in their well-groomed appearance. Customers who are Open to the cosmetic product range of the stores are also Environmentally and health-conscious, i.e. they primarily prefer environmentally and health-friendly cosmetics during their purchases. Customers who can be Influenced by the product range and promotion of the stores are still Uncertain about purchasing environmentally and health-conscious cosmetics. Indifferent customers are Indifferents in both cluster structures. Customers looking for cosmetics in stores are Open to buying environmentally and health-conscious cosmetics. Customers who are uncertain, hesitant, impressionable, or open-minded can be motivated to buy cosmetics, especially environmentally and health-friendly cosmetics, by presenting the various beneficial cosmetic properties, the social responsibility of the given manufacturer or retailer, promotions, product samples, and attractive product displays and placements.

1-5. based on the

- **H9.** A relationship can be described between customer groups that can be defined based on the factors that characterise the purchase of cosmetics, and cosmetic customer segments that can be established with the help of environmentally and health-conscious characteristics. *Accepted.*

4. CONCLUSIONS AND SUGGESTIONS

Table 12 illustrates the hypotheses and the results of the hypothesis tests.

Table 12: Results of the hypothesis tests

Hypothesis	Primary research method	Results
<i>H1. The characteristics of customers' environmentally and health-conscious lifestyles can be identified when making decisions about cosmetics.</i>	Qualitative research/individual and paired research interviews	ACCEPTED
<i>H2. Factors influencing customers when purchasing natural or non-natural cosmetics can be identified.</i>	Qualitative research/focus group	ACCEPTED
<i>H3. The frequency with which consumers purchase and use cosmetics for multiple purposes (functions) shows a correlation.</i>	Quantitative research/online survey	ACCEPTED
<i>H4. Consumers can identify natural vs. non-natural cosmetic brands based on their ingredients.</i>		REJECTED
<i>H5. Factors that characterise cosmetics purchases in stores can be grouped and differentiated by the length of time spent on the purchase and the size of the expenditure.</i>		ACCEPTED
<i>H6. The environmentally and health-conscious factors that characterise cosmetics purchases can be structured and described with the help of the time spent on the purchase and the size of the expenditure.</i>		ACCEPTED
<i>H7. People who buy cosmetics in stores can be segmented based on factors that characterise the purchase (and use) of cosmetics, and these cosmetic customer groups can be distinguished from each other based on the frequency of purchase and use of cosmetics.</i>		ACCEPTED
<i>H8. People who buy cosmetics in stores can be segmented based on the environmentally and health-conscious factors that characterise cosmetic purchases, and these groups of cosmetic customers can be distinguished from each other based on the frequency of purchase and use of cosmetics.</i>		ACCEPTED
<i>H9. A relationship can be described between customer groups that can be defined based on the factors that characterise the purchase of cosmetics, and cosmetic customer segments that can be established with the help of environmentally and health-conscious characteristics.</i>		ACCEPTED

Source: Own research (2021)

1. Findings, suggestions

Based on the literature presented, it can be concluded that the range of green cosmetics (raw materials, active ingredients, packaging materials, technologies) is constantly expanding as a result of R&D activities. Legal regulation can be a guarantee of safety, and environmental protection is becoming increasingly prominent in the cosmetics industry as well. The unstructured observations provided a basis for distinguishing the directions of grouping of cosmetic customers based on visible and non-verbal signs.

Based on the examination of the first hypothesis, I came to the conclusion that consumers who are open to environmental and/or health awareness vs. those who are not open make their decisions to buy and use cosmetics in accordance with the environmentally and health-friendly product characteristics vs. against them, i.e. consumers do not always make rational decisions in their cosmetic purchasing decisions, since consumers are subjects.

S1. Surveying a wider range of cosmetics buyers regarding whether they consider themselves to be environmentally or health-conscious and whether they act accordingly.

During the investigation of the second hypothesis, I came to the conclusion that cosmetic customer groups can make decisions different from their current purchasing habits with regard to future purchases and vice versa, based on the various material and non-material factors that influence them. The dimensions of the environmental and health impact can also influence the use of cosmetics to a different extent, which is a consequence of objective and subjective customer decisions.

S2. The proportion of chemical and natural ingredients should be indicated on the cosmetics. The same should also apply to the labeling of packaging materials, applied technologies, and allergenic substances.

When examining the third hypothesis, I found that consumers can use certain types of cosmetics for different purposes, either for cost savings or based on the "global" trust in individual products, i.e., multifunctionally. If the consumer uses a cosmetic more than once, he/she can buy it more than once, unless he/she receives it as a gift or someone else buys the given cosmetic product for him/her. For men, individual types of cosmetics are not as widely available as for women, and there are no male product alternatives for every single cosmetic, which is especially true for natural product lines.

S3. My suggestion to cosmetics manufacturers would be to produce and introduce more types and versions of male (men) cosmetics to the market, since there are not as many natural and non-natural cosmetic types available for men as for women.

The examination of the fourth hypothesis showed me that consumers are not clearly aware of the differences between natural (organic, eco, bio, vegan) and chemical cosmetics, but they cannot always distinguish between natural and non-natural cosmetic brands either. The reason for all this may be that these categories can be interpreted primarily by professionals, and are clear to consumers who consciously acquire knowledge about these types of cosmetics.

S4. For cosmetics manufacturers, I would recommend that, since consumers can find their way based on brands rather than ingredients, they draw attention to the different types of cosmetics by clearly distinguishing, introducing and advertising natural vs. non-natural brands, so that even without sufficient prior in-depth knowledge be able to make a decision in favour of the natural vs. non-natural cosmetic product that suits them.

During the examination of the fifth hypothesis, I came to the conclusion that the preference of drugstores is due to the breadth of their cosmetics range, and to the fact that certain customers can also look for cosmetics for the purpose of passing the time, while other customers want to "get over" on their weekly or monthly cosmetics purchases due to lack of time as soon as possible. Women are more familiar with natural cosmetics than men, which can be explained by the wider range of women's natural cosmetics and the more intense interest of women. I distinguished eight factors influencing the purchase of cosmetics in stores (impulse purchase, personal and material elements of decision support, product property control, acquiring knowledge about cosmetics before purchasing cosmetics, conscious purchase, personal or social purchase method, preference for own-brand cosmetics, purchase in a specific store), on the basis of which different durations and cosmetic purchases can be differentiated.

S5. I would advise stores and retailers that sell cosmetics to make customers more motivated, so that purchasing is an experience and not just an obligation, so that they expand the available product testing opportunities so that they can try as many cosmetics as possible, and by providing professional assistance in the stores, in order to avoid long queues, make shopping smooth with self-service checkouts, so that even uncertain customers can be sure of their decisions. Another comment I would like to make is that the price the customer has to pay at the checkout should always be displayed on the shelves. A more transparent grouping of cosmetic types would also be necessary according to product variants, genders, and age groups.

The examination of the sixth hypothesis shows that the following groups of factors, such as environmental awareness, health awareness, prevention, social and individual responsibility, economical and practical cosmetics purchases, and the rejection of extra environmental and health burdens also have an impact on cosmetics purchases, and according to which can also be differentiated based on sociodemographic factors, duration and expenses spent on purchases.

S6. In retail units, it would be necessary to more clearly mark and separate environmentally and/or health-conscious cosmetic types on the shelves so that customers looking for them can find them more easily.

Based on the analysis of the seventh hypothesis, I described the five customer segments (conscious, open, influenceable, indifferents, searchers) with their main characteristics. The background of this grouping can be the composition of the sample, which is further coloured by the ranking of use and purchase factors related to cosmetics, the purchase and use of natural cosmetics, and the frequency of purchase and use of various cosmetic products.

S7. In stores that sell cosmetics, it would be necessary to place natural cosmetics on separate shelves, so-called placing them on "green shelves" and separating them by gender, age group, skin type, for example, so that customers can find them first.

During the examination of the eighth hypothesis, along the dimensions of environmental and health awareness, I also described the five clusters obtained (environmentally and health-conscious, hesitators, sensitive to environmental problems – demanding of themselves, indifferents, open to action) with their main characteristics. The background of this grouping can also be the composition of the sample, which is further differentiated by the ranking of the use and purchase factors related to cosmetics, as well as the purchase and use of natural cosmetics.

S8. I also feel it is necessary to indicate the environmental and health impact of cosmetics in stores selling cosmetics, based on the explanation of the logos and markings displayed by the manufacturers. With the availability of various information desks, personal advice and assistance, bar code scanners, informative materials, and brochures, retailers could facilitate customers' decision-making regarding cosmetic products.

S9. For cosmetics manufacturers, I feel it is necessary to state that those manufacturers who do not seal the packaging of their cosmetics in some way, for example with adhesive tape, should do so, because, for example, inner cosmetics, i.e. vitamin boxes or hair dye boxes may be missing, for example, a leaf of vitamins or some accessories for hair dyeing, as the lack of closure can unfortunately lead to abuse to the detriment of bona fide cosmetic buyers.

S10. Similar to *S9*, my suggestion to cosmetics retailers is that damage related to cosmetics in stores should be properly monitored and handled in terms of safety technology, because damage to fragile and vulnerable products and leaving them on the shelves, as well as the purchase by bona fide customers, are also the latter causes financial damage to a customer group.

Relationships between the examined cosmetic customer segments

During the analysis of the ninth hypothesis, it can be established that some groups of people who buy cosmetics in stores can be matched in certain percentages to some clusters of environmentally and health-conscious cosmetics buyers based on the factors influencing the purchase and consumption of cosmetics.

- These cluster memberships only show a momentary state, as cosmetic buyers do not always behave in the same way in making their purchase and use decisions.
- Based on this, **H9**. A relationship can be described between customer groups that can be defined based on the factors that characterise the purchase of cosmetics, and cosmetic customer segments that can be established with the help of environmentally and health-conscious characteristics, it was ACCEPTED.

Relationships between hypotheses

- Regarding the relationships between the hypotheses, **H5**. and **H6**. based on its examination, the factors characterising both in-store and environmentally and health-conscious cosmetic purchases could be grouped, and they could also be differentiated and described with the help of the time spent and the size of the expenditure.
- The **H7**., **H8**. and **H9**. based on its examination, both in stores and those who buy environmentally and health-conscious cosmetics can be segmented based on the factors that characterise the purchase (and use) of cosmetics, and they can also be distinguished from each other based on the frequency of purchase and use of cosmetics.

2. Future research plan, possibility of direction

S11. The implementation of structured observations with interviews at the point of purchase on a larger sample during the course of COVID-19 in order to obtain an even more complete picture - according to different systems of criteria - of the identification of customer types and the exploration of additional factors influencing the purchase, as an opportunity for a new research direction.

S12. The online examination of the questionnaire on an even larger sample in order to achieve representativeness is also a possibility for a future research direction.

S13. The possibility of a detailed examination of the use and effectiveness of cosmetic services in a separate research.

S14. Customer and consumer behaviour towards non-FMCG cosmetic products (for example, curling irons, hair dryers) could also be the subject of a separate research.

S15. From the point of view of environmental awareness, an additional research direction could be the examination of the areas of overconsumption and waste related to cosmetic products.

5. NEW SCIENTIFIC RESULTS

1. "My own model of the cosmetics purchase process" was developed (based on the results of the qualitative research, as my own research model) (3.2.4).

Based on the components of literature sources, theoretical scientific materials, secondary research and literature processing, and source models (3.1.), i.e. based on the theory, I created my own theoretical conceptual model (Figure 1). Based on my qualitative research results, I created the final own research model. Compared to the own theoretical, conceptual model, the own research model (final model in Figure 2) has a horizontal and simpler structure, the purchase outputs have been combined and, due to the simpler structure, appear in only one place. In the basic concept of my own theoretical concept model, it focused exclusively on the purchase of cosmetics, but as a result of the qualitative research it was clearly outlined that the interpretation of the role of the consumption and use of cosmetics cannot be without the modified concept, i.e. my own research model. My own research model invariably focuses on the process of purchase, but displays (names) both the consumption and use of cosmetics and the factors that determine it (information input, beliefs, norms, attitude, lifestyle, way of life, product properties) in relation to several model factors. My own research model does not attempt to present the process of purchase and consumption together (considering that a joint analysis of the two processes would be impossible due to their complexity), however, it describes the interpretation focusing on the steps of the purchase decision taking into account the influencing role of the consumption and use of cosmetics. Due to the page size of the dissertation, my own research model does not include the investigation of cosmetic services, and in terms of its focus, it has been modified in such a way that it supports the preparation of the quantitative research as optimally as possible.

2. The factors of environmental and health awareness related to cosmetics purchases were identified and explored, as well as the reasons for choosing natural vs. non-natural cosmetics, the elements that influence them (3.2.2-3.2.3).

Environmental and health awareness contextualised the exploration and understanding of purchasing habits of natural vs. non-natural cosmetics for the first time.

Environmental and health-conscious factors affecting the purchase and consumption of cosmetics were explored, 12 types of interviewees according to whether they claim to be environmentally and health-conscious, and whether the consumer acts accordingly. Environmentally and health-conscious (positive direction) and non-environmentally and health-conscious (negative direction) lifestyle characteristics were identified. The variables of the time dimensions of

natural cosmetics purchases and the relationship between the use of natural cosmetics and environmental and health awareness (dimensions of environmental and health burden) were also explored.

3. It has become verifiable that factors characterising the purchase of cosmetics in stores can be systematised, and customer groups can be formed based on these factors (3.3.3., 3.3.5).

Eight factors influencing the purchase of cosmetics in stores were distinguished (impulse purchase, personal and material elements of decision support, product property control, acquiring knowledge about cosmetics before purchasing cosmetics, conscious purchase, personal or social purchase method, preference for own-brand cosmetics, purchase in a specific store), on the basis of which different durations and cosmetic purchases were differentiable, i.e. **H5**. Factors that characterise cosmetics purchases in stores can be grouped and differentiated by the length of time spent on the purchase and the size of the expenditure, which proved to be TRUE and was ACCEPTED.

The five customer segments (conscious, open, influenceable, indifferents, searchers) were described with their main characteristics, the background of which could be the composition of the sample, and which were ranked by the use and purchase factors related to cosmetics, the purchase and use of natural cosmetics, and the various cosmetic products its frequency of purchase and use is even more nuanced. The **H7**. People who buy cosmetics in stores can be segmented based on factors that characterise the purchase (and use) of cosmetics, and these cosmetic customer groups can be distinguished from each other based on the frequency of purchase and use of cosmetics. It was also ACCEPTED.

4. It has become verifiable that the factor groups that characterise the purchase of environmentally and health-conscious cosmetics can be defined, and customer groups can be formed based on these factors (3.3.4., 3.3.6).

The dimensions of environmental and health awareness also have an impact on cosmetics purchases according to the following groups of factors, such as environmental awareness, health awareness, prevention, social and individual responsibility, economical and practical cosmetics purchases, and the rejection of extra environmental and health burdens, which can be differentiated based on the duration and expenditure spent on purchases, therefore **H6**. The environmentally and health-conscious factors that characterise cosmetics purchases can be structured and described with the help of the time spent on the purchase and the size of the expenditure, it proved to be TRUE and was ACCEPTED.

The five clusters obtained along the dimensions of environmental and health awareness (environmentally and health-conscious, hesitators, sensitive to

environmental problems – demanding of themselves, indifferents, open to action) were also described with their main characteristics, the background of which may also be the composition of the sample, and these with cosmetics the ranking of related use and purchase factors, as well as the purchase and use of natural cosmetics further differentiates. **H8.** People who buy cosmetics in stores can be segmented based on the environmentally and health-conscious factors that characterise cosmetic purchases, and these groups of cosmetic customers can be distinguished from each other based on the frequency of purchase and use of cosmetics, it was ACCEPTED.

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