

**THE ROLE OF HÉVÍZ SLUDGE COSMETICS IN BEAUTY  
CARE AT THE DANUBIUS HEALTH SPA RESORT IN  
HÉVÍZ WITH SPECIAL REGARD TO THE KAVICZKY  
PRODUCTS**

Nóra Amberg  
Szent István University, Hungary

**INTRODUCTION**

As a result of the trend of health and beauty care, there are more natural possibilities in Hungary for the production of cosmetic products with the most natural components and environmentally friendly wrappers, which is becoming increasingly popular in Hévíz sludge for cosmetics production. Agnes Kaviczky was among the first to take advantage of this opportunity and created Pannon Formula PF<sup>TM</sup>, which includes Hévíz sludge, Hévíz water, natural grain extracts and biologically pure essential oils. The Danubius Health Spa Resort Héviz is one of the Danubius Hotels chain members, which deals with cosmetic treatments developed and created a cosmetics line by Agnes Kaviczky.

**AIM AND METHOD**

The purpose of the study is to find out how Danubius Health Spa Resort in Hévíz is to the extent to which the guests benefit from the treatment of high-quality Kaviczky cosmetics made from Hévíz sludge. I have completed a primary research study by studying the available professional materials (referred to herein). On 16.07.2018 from 8 a.m. I made a personal interview with medical director of Danubius Health Spa Resort Hévíz, Marta Vajda at the medical center. Marta Vajda has made available to me their traffic data for 2013–2016. I made my own base and chain ratio calculations for the given data. On 23.07.2018 I made an interview with Agnes Kaviczky, creator of the Kaviczky cosmetics on two occasions.

## THE SIGNIFICANCE OF THE SLUDGE OF LAKE HÉVÍZ

The largest biologically active, natural thermal lake in the world is the thermal lake of Hévíz, the thermal water of which is one of the most valuable in Hungary among many different forms of medicinal and medicinal resources. The red and blue floral roses in the pond provide a beautiful look. There is a great deal of science for this new cellulose and protein decomposition micromonospora (*Mikromospora Heviensis*), which helps to shape the sludge. There are also species around the world around Hévíz. The surface of the lake, which was 47,500 m<sup>2</sup> in the upper Triassic period (about 200 million years ago), was created from the pure seawater of the Pannonian Sea. The lake is fed by a rich mineral source of thermal springs, which originates from a cave 38 m deep, where tens of thousands of warm and cold karst waters are mixed together. The source gives 20,000 liters of water per minute, so the water of the lake is renewed within 72 hours (replaces every 3 days), with an average water flow rate of 310m<sup>3</sup>/secundum. The temperature of the thermal water in the summer months is 33–35°C, which does not fall below 26°C in winter. The extraordinary therapeutic effect of thermal water is due to sulfur and radon. Water has valuable mineral and trace elements such as sodium, potassium, lithium, ammonium, calcium, magnesium, iron, manganese, nitrate, nitrite, chloride, bromine, iodine, fluoride, sulphate, hydrocarbonate, phosphate and sulphide. The nature of thermal water is calcium magnesium hydrogen carbonate, fluoride, sulfur water. The specialty of Lake Hévíz is a medicinal sludge covering the bottom of the lake at 1–3 meters thickness, which is mainly a peat of vegetal origin, organic material produced by microbiological maturation synthesizing from plant sediments, with minerals and humic acids unique in the world. The basin consists of non-volcanic soils, but also of mead-bog peat, which is also unique for the unique nature of the lake. Sludge is not sticky and extremely hydrophilic, its touch is delicious and pleasant. It has a high heat storage capacity, which makes it effective for sludge splitting. Where two different water temperatures meet, there is a wide sludge in which humic acid is formed [WWW 4, Lake Hévíz... , The chemical composition...].

Humic acid is produced from plant sediments during microbiological maturation. Numerous precious properties of beauty care can be utilized in this long carbon chain of high molecular weight organic matter. The Hévíz cure is well suited for movement disorders and for the use of a weight bath. Treatments are being performed at the hotel's medical section where the latest methods of balneo, electro and mechanotherapy are used in patients receiving treatment based on diagnosis by specialist doctors. The lake of Hévíz rightly deserved to be nominated on the Waiting list of the World Heritage List with its unique properties, therapeutic effects, unique flora and fauna [WWW 4, Danubius Hotels Group Spa..., Danubius Hotels Group; Spa Treatment...].

## BEAUTY CARE TREATMENTS AT DANUBIUS HOTEL AND SPA PLC, WITH SPECIAL REGARD TO KAVICZKY TREATMENTS

In the world, a new approach is becoming increasingly popular, whereby people are beginning to be interested in a natural and organic way of life. The Kaviczky product line represents the naturalness and uniqueness of synthetic preservatives, dyes and fragrances.

The composition of Kaviczky cosmetics is unique in Hévíz sludge and medicinal water, natural GMO-free grain extracts from Hungary and bio-purity essential oils, which provide a stimulating, skin-tightening effect. A special combination of active ingredients is Pannon Formula PF<sup>TM</sup>, which is found in every Kaviczky product [WWW 4].

Hévízi sludge can be used not only for medical purposes, but also in the cosmetic salons of Emporium in Danubius Hotels in Hévíz, Bük and Sopron from the autumn of 2013, with the help of Kaviczky treatments and luxury cosmetics. Humic acid is able to increase the cell membrane's potential, which is thus vital, and is well suited for detoxification by binding heavy metals, regenerating the skin, fine wrinkles, and anti-inflammatory and antiseptic properties [WWW 4].

In Danubius Hotel's private label beauty salon, The Emporium Wellness and Beauty Salon, the basic concepts of indulgence and luxury enjoyment. The Emporium Wellness and Beauty Salons are demanding and well-equipped salons offering a wide range of high quality cosmetic, relaxing and relaxation treatments as well as hand and foot care treatments. The manual and Swiss Bodylizer system with French products by Sothys and body exfoliation, body regeneration, facial, botox, greetings and men's facials are on the Emporium palette. Treatments are performed with a high quality manual handling method. Electro-cosmetic treatments are also used in the salon. Treatments are supplemented with professional expertise and professional skin care advice [WWW 4].

Kaviczky treatments are available eg. in the Danubius Health Spa Resort Bük, in the Danubius Health Spa Resort Aqua, in the Hotel Lóvér hotels outside the Danubius Health Spa Resort Hévíz. Agnes Kaviczky is the creator and designer of the special brand of cosmetics for the brand:

"My goal was to create a premium-grade cosmetics line that, in its appearance and content, meets the expectations of the world and it carries the values that are typical of Hungary. Therefore, I selected the water and sludge of the unique Hévízi lake in the world as a base material for the base material of the developed product line. I find it extremely important that anything that serves the good, the health or the beauty of mankind comes from the natural treasures of our land, and there is no imitation or iniquity in it." [WWW 4].

Kaviczky facial treatments at Danubius Health Spa Resort in Hévíz:

- Kaviczky Greeting Facial Treatment: a taste of Kaviczky cosmetics by cleaning, scrubbing and massage.
- Kaviczky Vine Flower Energizing Facial Treatment: revitalizing, detoxifying treatment, which moisturizes, nourishes and nourishes the skin with velvety combination of vine and flower extracts. Treatment cleansing includes prep up massage, plus mask, facial neck and décolletage massage.
- Kaviczky Express Regeneration: quick skin regeneration treatment, after cleansing, scrubbing and active ingredient placement, Peloid mask is placed on the face during which hand massage is performed and closed with daytime skin care.
- Kaviczky Exclusive Diamond Ritual: Instant hand firming and anti-wrinkle treatment with diamond power. Very effective treatment with gemstone. Finely polished the surface of the skin reveals its youthful glow, which makes the skin firmer and fuller, and the face recovers its contours. Treatment includes cleansing with prep up massage, nursing with Digito Pressure point massage, facial neck and décolletage massage, eye care and masks.

- Kaviczky Deep Cleansing Facial Treatment: classic cosmetic treatments that are complemented by steam and deep cleansing. Treatment includes cleansing, scrubbing, steaming, deep cleansing, active ingredient delivery, face-neck-decolletage cleansing massage, nourishing wraps, daytime skin care according to skin type and skin condition.
- Kaviczky Pampering Facial Treatments: Classic cosmetic treatment that includes cleansing, scrubbing, active ingredient, facial neck decolletage massage, nourishing wrap, daytime skin care, in every case according to skin type and skin condition.
- Kaviczky Luxury Treatment with Plant “Botox”: the products used in this treatment are an unique botox botox with an unique active ingredient, an unique biotechnology, from which the skin regains its natural beauty and elasticity, which is reflected in its original light. It is unique to Kaviczky treatments not only in its active ingredient but also in its method. Includes: cleansing, eraser, special massage, active ingredient in-take, grain mask, hand massage, eye care, daytime skin care.
- Facial Treatment for Men – Kaviczky Deep Cleansing Facial Treatment for Men: focusing on men’s skin care needs, but with the same method of treatment as the Kaviczky deep cleansing treatments. Treatment includes cleansing, scrubbing, steaming, deep cleansing, active ingredient, face-neck and decolletage massage, nourishing wrap, daytime skin care according to skin type and skin condition [WWW 4, Kaviczky treatments..., The Emporium...].

Table 1 presents the Kaviczky products available at Danubius Health Spa Resort in Hévíz. Kaviczky cosmetics include a wide range of cosmetic products in a demanding design.

TABLE 1. Kaviczky cosmetics

Type	Product name, size
Cleansers	<ul style="list-style-type: none"> <li>• Gentle Cleansing Milk PF<sup>TM</sup> LAVENDER (200 ml)</li> <li>• Gentle Soothing Cleanser PF<sup>TM</sup> LINDEN FLOWER (200 ml)</li> </ul>
Tonics	<ul style="list-style-type: none"> <li>• Gentle Toning Lotion PF<sup>TM</sup> LAVENDER (200 ml)</li> <li>• Gentle Soothing Lotion PF<sup>TM</sup> LINDEN FLOWER (200 ml)</li> </ul>
Eye contour care	<ul style="list-style-type: none"> <li>• Eye Contour Balm PF<sup>TM</sup> HORSE CHESTNUT (30 ml)</li> <li>• Serum Exe Contour PF<sup>TM</sup> JASMIN (15 ml)</li> </ul>
Serums	<ul style="list-style-type: none"> <li>• Serum Lifting PF<sup>TM</sup> OAT MILK (30 ml)</li> <li>• Serum Moisturizer PF<sup>TM</sup> BARLEY MILK (30 ml)</li> <li>• Serum Vitalizer PF<sup>TM</sup> SWEET ALMOND MILK (30 ml)</li> </ul>
Day Creams	<ul style="list-style-type: none"> <li>• Nourishing Day Cream PF<sup>TM</sup> GINGKO (50 ml)</li> <li>• Moisturizing Day Cream PF<sup>TM</sup> CALENDULA (50 ml)</li> <li>• Lifting Day Cream PF<sup>TM</sup> SHEA BUTTER (50 ml)</li> <li>• Defense Day Cream PF<sup>TM</sup> TARA TREE (50 ml)</li> <li>• Normalizing Day Cream PF<sup>TM</sup> WILLOW BARK (50 ml)</li> </ul>

TABLE 1. cont.

Type	Product name, size
Night Creams	<ul style="list-style-type: none"> <li>• Rejuvenating Night Cream PF<sup>TM</sup> WILDYAM (50 ml)</li> <li>• Energizing Night Cream PF<sup>TM</sup> CORN GERM OIL (50 ml)</li> <li>• Firming Night Cream PF<sup>TM</sup> WHEAT PROTEIN (50 ml)</li> <li>• Soothing Night Cream PF<sup>TM</sup> GRAPE SEED OIL (50 ml)</li> <li>• Balancing Night Cream PF<sup>TM</sup> GENTIAN (50 ml)</li> </ul>
Cosmeceuticals (plant botox)	<ul style="list-style-type: none"> <li>• Cosmeceutical Innovative Care FORMULA HIBISCUS, PLANT BOTOX (50 ml)</li> <li>• Cosmeceutical Intensive Care FORMULA ORCHID (50 ml)</li> <li>• Cosmeceutical Active Care FORMULA PRIMEROSE (50 ml)</li> <li>• Cosmeceutical Defensive Care FORMULA LILY (50 ml)</li> </ul>
Masks	<ul style="list-style-type: none"> <li>• Nourishing Corn Mask PF<sup>TM</sup> BARLEY MILK (50 ml)</li> <li>• Deep Cleansing Mask PF<sup>TM</sup> HÉVÍZ MOOR MUD (50 ml)</li> <li>• Rejuvenating Mask PF<sup>TM</sup> HÉVÍZ MUD – HUMIN ACID (50 ml)</li> <li>• Black Rose Mask / Flora'xcellence rose (50 ml)</li> </ul>
Peelings	<ul style="list-style-type: none"> <li>• Gentle Exfoliating Cream PF<sup>TM</sup> PINEAPPLE (50 ml)</li> <li>• Mild Mechanical Peeling PF<sup>TM</sup> OLIVE SEED (50 ml)</li> </ul>
FLORA'BALM	Intensely protects and moisturizes the skin rejuvenating, structure transforming, stimulating vegetal cocktail (50 ml).
FLORA'ENERGY	Revitalize treatment lotion with liquid flower energy (50 ml).
FLORA'DEW	Ultra thin, super effective soothing cocktail (50 ml)
FLORA'LIXIR	Flower ombined with biopolymer complex and bioactive peptides result in a strong and effective transformation (15 ml)
FLORA'OIL	Nourishing, refilling, moisturizin and smoothing oil (15 ml)
Diamonds cream	Unique gel cream with wonderful glittering (50 ml)
Diamonds drops	Enriched concentration serum drops (15 ml)

Source: [Kaviczky Budapest..., Kaviczky treatments..., WWW 3].

## PERSONAL INTERVIEW WITH MARTA VAJDA MEDICAL DIRECTOR

With Marta Vajda medical director was interviewed on 16.07.2018. According to his statement, the hotel's medical and cosmetic services are required by the 50+ guests. Numerous guests from Russian origin will be available for those who are interested in treatment with the Hungarian Kaviczky and French Sothys cosmetics. (With Sothys cosmetics they are being treated at the hotel from 1.09.2017, before working with the other French cosmetics Clarins). Based on the Sothys Vajda Marta's statement, she was a qualitative change, since before her application a serious market research was carried out on the quality of the various cosmetics during which Sothys proved to be the best. The guest is increasingly interested in site-specific cosmetics, which uses the therapeutic and beauty

care benefits of Hévíz sludge, the Kaviczky cosmetics line. With cosmetic treatments, the cosmetic specialist offers treatments that meet the skin type, as he is able to determine with a professional view that the expected result is the most suitable for the guest. The Sothys \*\*\*\* (four stars) high quality product, the Hungarian alternative, the Hungarian hungaricum, the Kaviczky cosmetics range made of Hévíz sludge, which is also of high quality, has the advantage of using humic acid, antiallergic, natural, natural ingredients, there are many new features in the product line such as the diamond treatment, the plant botox (cosmeceuticals). The Kaviczky diamond treatments were introduced in the hotel in the spring of 2018.

### **PHONE INTERVIEW WITH AGNES KAVICZKY, OWNER AND DEVELOPER OF KAVICZKY COSMETICS**

Agnes Kaviczky on 23.08.2018 we talked twice on the phone about Kaviczky cosmetics, the medicinal and beauty care of Lake Hévíz and the sustainability of the lake. Agnes Kaviczky said that their cosmetics are packaged in recyclable packaging material, an additive (plastic) manufactured by an Italian company. The primary packaging of cosmetics includes the product itself, which has to meet different health criteria. The secondary packaging is the outer packaging, the box containing the primary packaging, the cosmetics itself. With this outer packaging, the consumer encounters the stores' shelves. Natural ingredients can attack the packaging material, which can release harmful substances from the plastic that can damage the body, so it is important that the packaging material is made of hard plastics, which can reduce the comfort of the product, but it does not need to dissolve the packaging. It is essential that the phthalic acid used will be soft, plastic, phenol, toxic organic compound, which is also harmful to health.

Hévíz water is the peat water from the top of the sludge, which has the same properties as if it were from the lake, while the water treated in the low pressure plasma reactor is declustered water, which holds the 1 nm (nanometer) and stable cluster structure for 60 days then degraded. Water treated in a static magnetic field is only used in the Kaviczky Panflora'Soul cosmetics, which should not be confused with thermal water. In an earlier interview – among the other interviewees, I think of the ideas of Agnes Kaviczky regarding the sustainability and protection of Lake Hévíz and responsible organizational behavior and risk management:

In view of the protection of Lake Hévíz and its surroundings, the extraction of peat from the lake is half-manufactured, as the machines with which the peat extraction takes place are not large-scale but rather smaller grabbers. Transport is carried out by trucks to deposit the peat as the peat should stand and be consolidated in order for its microbiology to stabilize. In a procurement process, developing a partnership with a new supplier requires great care. For the most important aspects of procurement:

- the origin of the raw material, that is reliable cultivation;
- degree of purity, suitability for cosmetic use;
- the technology of harvesting and harvesting, that is, it is always more valuable to collect and process quickly and than to pack;
- fair market behavior;

- maintaining continuous supply, that is to Agnes Kaviczky, it is important that if you find a good quality active substance, you can calculate and calculate the supplier in the long run;
- do not undergo or conduct animal testing during impact assessments;
- produce only until it is able to sustain the ecological balance and it is important that you retreat as much as you would for the sale;
- if it is a threatened/protected plant, what activity it is doing to protect the protected species.

Risks may arise as a result of business and nature:

- The primary risk is that the process chain between supplier companies and users is rather long. The product goes through multiple intermediaries and commercial channels to reach the end user.
- The long process chain distorts the origin and credibility of information. Agnes Kaviczky responds to this by securing stable, long-lasting and trustworthy companies, although risk always exists.
- Responsible thinking is morally and ethically important to Kaviczky, which means long-term benefits in money. However, the return on investment is longer but more durable, while the internal and external assessment of the organization becomes positive.

The Kaviczky company's up-and-coming, unbroken track is also proven by its balance sheet data. Kaviczky Trading Ltd. was established in 2003 for the production of Kaviczky personal care products, whose net sales for the year 31.12.2017 were 554,000 HUF, 1,784 EUR. Kaviczky Ltd. On the basis of the decision of its owner, is engaged in R&D activities, funds for research and development, while in Kaviczky Premium Ltd. Was established in 2011, sales and distribution, which is a production department that has been producing personal care products and whose net sales were 19,564,000 at 31.12.2013. HUF, 62,996 EUR [WWW 1, WWW 2].

#### **SITUATION AND VISION OF BEAUTY INDUSTRY BASED ON THE NEW SZÉCHENYI PLAN AND HÉVÍZ SPA HEALTH AND BALNEOLOGICAL DEVELOPMENT CONCEPT**

Extending the New Széchenyi Plan (2011) to the health industry includes, among others, beauty, balneology, herbal cultivation and processing, and thermal therapeutic use of thermal water. The green economy as a very large area includes sectors that use their natural environment as resources more efficiently and more economically than in earlier periods. For example, bio-horticulture, nature and water protection. The knowledge economy also embraces a wide area, emerging or strengthening industries, the most important of which is the creation and application of new knowledge, research and development, innovation and the healthcare industry. The New Széchenyi Plan includes market-making developments such as the first Széchenyi Plan spa and thermal tourism subprogram. The New Széchenyi Plan has created a market opportunity for example in the healthcare industry for the therapeutic use of thermal water, and the beauty industry can give impetus to herb growing. The green economy and the knowledge

economy also have a very strong market potential, since the possibilities and directions of market creation are “drawing” out of the way because they are relatively new economic directions. Value creation in the healthcare industry is a key factor in R&D, eg. in the pharmaceutical industry, but the role of innovation is significant, for example in the beauty industry [Government of Hungary...].

In today’s globally integrated economy, not the industries, not the big giants, but industries or giants, are the production and value chains and networks that compete with each other. For Hungary and for domestic companies, it is important to know where and where to get involved in global value-creating and competitive value chains. The green economy and the knowledge economy rely on high added value, as there is some extra knowledge behind every economic advantage. It is about knowledge that competitors do not have. In these industries, the idea is the greatest value [Government of Hungary...].

The two main priorities of the Health Program are health tourism and the thermal and health industry. In the thermal-health sector, priority is the essential areas of the use of thermal, medicinal and mineral waters, sectoral interfaces, the innovation program elements based on the health industry and the “backgrounds” serving the development of the healthcare industry. The subprograms of the thermal health priority include the complex utilization of thermal, medicinal and mineral waters in the field of beauty and cosmetics. Based on international trends, it can be seen that cosmetic services, procedures, and cosmetic articles have come to the fore, which, besides health, are also aimed at the preservation or restoration of beauty. The middle classes are also interested in beauty products and services today, not just the wealthiest ones. Innovation is the main driving force behind the modern cosmetics market, the ever-changing color range, the specific treatments and the unique product mix that prefer different needs. Most cosmetic products have a lifespan of less than 5 years, and manufacturers each year produce 25% of their products in a new composition. They are constantly required to renew their products in order to retain their position in a highly competitive marketplace where consumers are getting a wider choice and better performance [Government of Hungary...].

In the field of (potential) cosmetic raw materials (chemical, herbal, water), Hungary has favorable natural resources, which requires a good knowledge. In the field of natural cosmetics, the origin of the plant or propagation material is essential. Favorable if the content of Hungarian origin and cultivated crops is multiplied by the number of crops grown elsewhere in the world. The language proficiency of service providers, international (manufacturing and service) infrastructure, and the availability and reputation of international services and products are of major importance. Without these changes, the home beauty industry will remain uncompetitive with European or overseas products. The domestic cosmetics industry is medium and small (SMEs). The number of cosmetic companies in Hungary is low, approx. 30–80 (of which 10 are the number of medicinal water-based products), so the changes affecting SMEs affect the entire sector [Government of Hungary...]. The production of domestic and spa products is very low in Hungary and in the international market, although the spectacular development (eg. Vichy, Babor, Bad Wörishofen, Dead Sea products) is evident [Local Government...]. The baths

could build their services on a specific therapy based on a particular home-based preparation [Government of Hungary...].

The health industry and the cosmetics industry are mainly the so-called “Borderline” products, as these border products can contribute to the complexity of the domestic healthcare industry. Based on the Health and Balneological Development Concept of Hévíz Spa, the proposed collaborations (clusters) between organizations carrying out research and product development related to healing sludge should be developed, in which it is recommended to develop an action program for the health and beauty treatment of Hévíz medicinal sludge. The main objective of the health-balneological concept is to exploit the potential of the healthcare industry, complex medical tourism and the development of healthcare [Local Government...].

There is a major role to play in sustainable development as environmental protection is also a priority for the protection of nature and the environment, the use of thermal lake and thermal water extraction. In the health and green economy-centered local economic development, the beauty industry is one of the priority areas. Besides the medical use of the Hévízi sludge, the market potential of beauty products is a serious market potential. Good examples of the use of sludge for cosmetic purposes are the Dermalan Cosmetic Cream and the Kaviczky product line belonging to Agnes Kaviczky. Kaviczky uses sludge in non-aqueous form, but in powdered, dried and crude form. Such a sludge serves as a basis for Kaviczky cosmetics. A special drug combination is Pannon Formula. The Kaviczky company saw the need for a new Hévíz brand to be developed, which would make the brand line products available in every hotel in the same form. The product line would be marketed in different price categories for the needs and material needs of consumers. The active ingredients of Hévíz fairy rose are also suitable for cosmetic use in addition to sludge-based products requiring further research [Local Government...].

## DISCUSSION

According to data from Table 2, the number of users of Kaviczky treatments at Danubius Health Spa Resort in Hévíz in 2013 is 227, which accounts for more than 15% of all cosmetic treatments. In 2014, 363 people used Kaviczky treatments, 451 in 2015, and 478 in 2016. Kaviczky treatments are becoming more and more interested every year. In 2014, this is 30% of total cosmetic treatments, 39% in 2015, and 40% in 2016.

From 2013 to 2014, the number of users of all cosmetic treatments decreased by 250, the number of people using Kaviczky treatments increased by 136, from 2014 to 2015, the total number of people requiring treatment dropped by 63, 88 for Kaviczky users increased from 2015 to 2016 by 252 compared to 2015 and 27 in Kaviczky treatments. The results show that the number of users of Kaviczky treatments increases year by year, even though the number of users of all cosmetic treatments fell somewhat in 2014 and 2015.

TABLE 2. Cosmetic treatments at Danubius Health Spa Resort in Hévíz 01.01.2013–31.12.2016

Cosmetic treatment	2013 (person)	2014 (person)	2015 (person)	2016 (person)	Price in HUF in 2018 /cosmetic treatment*	Change in 2014 compared to 2013 (base in %)	Change in 2015 compared to 2013 (base in %)	Change in 2016 compared to 2013 (base in %)	Change 2014–2015 (chain in %)	Change 2015–2016 (chain in %)
Anti Aging Bodylizer	116	114	38	61	23 900	98	33	53	33	161
Hip Tightening	20		1	4	10 900		5	20		400
Express Anti Wrinkle	19	11	1	3	15 900	58	5	16	9	300
Express Lifting	27	19	6	3	10 900	70	22	11	32	50
Express Hydration	15	12	3	2	9 900	80	20	13	25	67
Express Regeneration	35	25	21	15	11 900	71	60	43	84	71
Abdomen lifting	30	13	31	13	15 900	43	103	43	238	42
Breast lifting	2	2		2	15 900	100		100		
Press and flow	15	2	6	7	10 900	13	40	47	300	117
Star Lifting	16	7	8	16	20 900	44	50	100	114	200
Facial wax			6		5 000					
Bikini wax	5	7	5	8	3 000	140	100	160	71	160
Armpits wax	3	5	6	7	2 500	167	200	233	120	117
Intim zone wax			3	3	6 000					100
Full leg wax	4	4	8	4	6 500	100	200	100	200	50
Facial wax / partial	27	16	26	29	2 200	59	96	107	163	112
Leg wax till knee or arms	6	8	10	12	4 600	133	167	200	125	120
Fading skin magic treatment	3	19	18	26	20 000	633	600	867	95	144
Anti-Aging mask	137	32	7	4	12 000	23	5	3	22	57

TABLE 2. cont.

Kaviczky Facial Treatment for Men	4	16	15	17	19 900	400	375	425	94	113
Facial massage		59	117	16	4 000				198	14
Aphrodite pack		22	41	43	11 100				186	105
Skin Rejuvenation Skin Eye Treatment				8	8 700					
Gold mask	1	2	1		20 000	200	100		50	
Caviar mask	11	1			18 000	9				
Cleopatra/Adonis Bodypack	43	17	1	1	11 100	40	2	2	6	100
Danubius Magic facial massage	107	49	34	194	8 500	46	32	181	69	571
Express facial and eye treatment	44	37	30	28	15 000	84	68	64	81	93
Kaviczky express regeneration	5	24	25	18	14 900	480	500	360	104	72
60' Facial treatment for men	22	23	13	17	18 900	105	59	77	57	131
Hévíz pampering			6	11	19 900					183
Conditioner head and back massage	3				8 900					
Eyelash tinting	67	66	67	109	2 500	99	100	163	102	163
Facial treatment with sludge	35	7		4	7 900	20		11		
Kaviczky pampering facial treatment	24	68	137	136	17 900	283	571	567	201	99

TABLE 2. cont.

Cosmetic treatment	2013 (person)	2014 (person)	2015 (person)	2016 (person)	Price in HUF in 2018 /cosmetic treatment*	Change in 2014 compared to 2013 (base in %)	Change in 2015 compared to 2013 (base in %)	Change in 2016 compared to 2013 (base in %)	Change 2014–2015 (chain in %)	Change 2015–2016 (chain in %)
Kaviczky luxury treatment with plant “botox”	7	25	14	20	22 900	357	200	286	56	143
Relaxing back massage		6	1		8 900				17	
Kaviczky deep cleansing facial treatment	9	65	95	113	21 900	722	1056	1256	146	119
Deep cleansing	96	60	49	33	22 900	63	51	34	82	67
Eyebrow tinting	82	76	67	102	1 900	93	82	124	88	152
Eyebrow correction	90	47	57	91	1 500	52	63	101	121	160
60' Facial treatment	185	163	88	88	19 900	88	48	48	54	100
Hand care with paraffin	69	9	5	18	3 300	13	7	26	56	360
60' Body peeling	6	8	10	7	19 900	133	167	117	125	70
60' Body treatment	45	39	7	17	20 000	87	16	38	18	243
80' Tri-Active facial treatment				6	25 000					
Body wrapping	23	13	17	21	16 500	57	74	91	131	124
Kaviczky welcome treatment	10	20	54	70	8 500	200	540	700	270	130
Total number of people using Kaviczky treatments:	227	363	451	478						
Total number of people using cosmetic treatment:	1 468	1 218	1 155	1 407		83	79	96	95	122

\* 2018th on the basis of actual and estimated (market average) prices available for the year. Kaviczky treatments have been highlighted in light gray color.

Source: Author's calculation based on data from Summary of subdivision...

## **CONCLUSIONS**

Kaviczky treatments are popular with the users, they prefer the potentially beneficial properties of Hungarian hungaricum, its natural ingredients and the Pannon Formula. Looking ahead, an increasing trend is expected, the circle of interest will be expanding. Based on the sales data of Danubius Health Spa Resort in Hévíz, Table 2, the demand for services by Kavicky products will increase in the coming years. The reasons for this are due to environmentally and health conscious consumer behavior and the high quality of Kaviczky products. As far as the utilization of the Hévíz Lake sludge is concerned, newer innovative solutions will be implemented in accordance with the New Széchenyi Plan 2011 and the Hévíz Gyógyfürdő Spa 2011 concept. It is a positive trend that the medicinal capacities of domestic natural resources are continually explored and exploited. Ágnes Kaviczky is pursuing ongoing research and looking for ever more innovative solutions to make the products he deals with are more natural, environmentally friendly and more advanced. In the future, the emergence of new product lines on the market will be expected to further expand the range of services in the Danubius hotel chain. The Lake of Hévíz still offers many opportunities to expand the range of healing cosmetics and therapies. The exploration and exploitation processes, the ever-growing sludge extraction technologies, do not harm the lake, so they are environmentally aware. This is very important to reduce the ecological footprint, from the perspective of future generations, that is, sustainability.

## **ACKNOWLEDGEMENTS**

The validity and the exactness of the data published in this article was verified and supplemented by Agnes Kaviczky and by Marta Vajda, medical director and competent staff in the Danubius Health Spa Resort in Hévíz.

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**Summary.** The paper presents the effect of the Hévíz Lake sludge on health and beauty, with particular emphasis on the beneficial properties of the Hévíz sludge ingredient in cosmetics, which is mainly presented with the Kaviczky treatments applied in Danubius Health Spa Resort in Hévíz and the ecological unevenness of Lake Hévíz. Agnes Kaviczky developed the Pannon Formula, which is composed of Hévíz sludge, Hévíz water, natural grain extracts and biologically pure essential oils. The unique features of the Lake Hévíz, its therapeutic effect, its unique flora and fauna are of great importance for those seeking healing, beauty, relaxation and excursions. From an environmental point of view, the sustainability, protection, conservation of its living and healing sludge for future generations must be sought.

**Key words:** environmental protection, Hévíz sludge, Kaviczky cosmetics, naturalness, Pannon Formula PF<sup>TM</sup>

**JEL:** M30, M31, M37

**Corresponding author:** Nóra Amberg, Szent István University, Faculty of Economics and Social Sciences, Department of Marketing Methodology, Páter Károly 1, H-2100 Gödöllő, Hungary, e-mail: [nora.amberg@gmail.com](mailto:nora.amberg@gmail.com), <https://orcid.org/0000-0003-3583-9132>