

SPECIFICS OF THE CZECH SPA INDUSTRY AND CATEGORIZATION MODEL OF SPA TOWNS

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Abstract: *This article provides selected information about the performance of the Czech medical spa industry, as well as the various types of stay available and their respective costs. It reveals the specific ways of how medical spa care is financed in the Czech Republic and resumes that financing methods diverge from using the public finance sources towards the private ones. In this article is developed a special model to enable easy categorization, which allows the reader to quickly ascertain fundamental information on relative attributes of spa industry. The created model is usable for marketing communication.*

Keywords: *Czech medical spas, Funding sources, Regional spa industry, Categorization model.*

JEL Classification: *L800, R110.*

Introduction

Even though the history of the Czech medical spa industry can be traced back to ancient Greece and Rome, the Czech spa tradition is much younger, having started in the 15th century. During the centuries they have gained extraordinary fame in European cognizance. Nowadays, the Czech Republic with its numerous mineral springs and long tradition of medical spas, is considered as one of the most important European spa districts.

The Czech spa industry is traditionally regarded as part of the tertiary sector of the economy, operating midway between health care and tourism. Statistical classification of economic activities in the European Community NACE (From the French „Nomenclature générale des Activités économiques dans les Communautés Européennes“), which classifies businesses into separate sections and codes according to the added value, has medical spa activities classified under section Q86.9.0 - Other human health activities [10]. In the Czech Republic, medical spas are included, according to the structural branch of the economy, under the health-care sector.

Although the medical spa industry is not a separate economic sector, its contribution to the economy, employment, living standards and to the international image of the Czech Republic is quite extraordinary. Medical spas are based on the observation that health status is one of the most important indicators of the quality of life [12].

Medical spas are registered medical treatment facilities accredited by Ministry of The Health of Czech Republic which use local curative sources to provide balneotherapeutical services. It is necessary to fulfill certain requirements to receive the status of medical spa, as defined by the Private Facilities Medical Care Act, i.e. “Spa Act” [1].

Balneotherapy is an indispensable part of medical care and is reimbursed by Health Insurance Companies in the Czech Republic. The aim of balneotherapy is to finalize the medical care received in hospitals by providing a place for recuperation; in regards to chronic diseases, spa procedures are undertaken almost yearly to stabilize the condition of the client and prevent recurrence of his disease.

An aging population, stricter demands on health care, adopting healthier lifestyles, and increases in the standard of living of a population creates the presumption that there is a higher use of spa services. The spa industry should respond to the above by becoming responsible for its own development [8].

Trends have, to a small degree, manifested since the mid-90s and have intensified after 2000, showing a greater diversification of services now provided at medical spa facilities; from traditional bathing to rehabilitation, relaxation, and having additional wellness procedures on offer [9]. Innovations taking place in the Czech spa industry are influenced, to a large extent, by the type of innovative behaviour of spa treatment facilities [11], and they are also influenced by legislation and their links to public funding [7]. An important, local feature of Czech medical spas is that each has a special relation to and is influenced by the spa town in which the facility itself is located.

Medical spas are becoming an indispensable factor in the development of a region, with all the positive and negative effects seen in the dynamics of development and the life cycle model [3].

1 Material and methodology

In regards to choosing the methodology, an exploratory style of investigation was undertaken due to a lack of any kind of previous research on the subject. The proposed model of categorization regarding medical spa facilities and spa towns is preceded by a concise explanation and background of the Czech spa industry as well as local spa-care principles. Performance indexes relating to the medical spa industry and information on how present-day medical spa-care is financed by the government have also been included.

Our model of categorization links each medical spa facility with its respective spa town and should provide researchers and those who work directly in the spa industry with a useful tool. The exploratory research sample consists of 156 medical spa facilities in 30 spa towns, each of which are certified as being Czech medical spas.

Our data comes mainly from Czechtourism – which is responsible for supporting and developing tourism in the Czech Republic, the Institute of Health Information and Statistics of the Czech Republic and the public database of the Czech Office of Statistics. A partial data source was the medical spa facilities and spa towns themselves.

The model evaluates the criteria identified, thus providing immediate and clear information on every spa facility. The scale of “small”, “small-mid-size”, “mid-size-larger”, and “large” has been used for denotation in the second and third criteria. Spa facilities have been sorted into two groups following above-average and below-average of these quantitative criteria levels. The average size figures were calculated on the explored sample of the medical spa facilities. This analysis allows a comprehensive insight into understanding the present-day Czech spa industry.

The synthesis of the spa towns and their medical spa facilities provides a model of categorization for each facility operating in the spa town. Firstly, we drew up the model for categorization, and then followed it by identifying the main trends of and their impacts on the Czech medical spa industry.

1.1 Methods of financing medical spa stays

Spa care is regulated by law, mostly under the legislation entitled “Indicating list for medical care”. As well as grouping diseases and diagnoses, it also specifies types of medical care, lengths of stay, conditions, and lists exact places where medical spa care is provided.

Prices may be different in each spa, even for the same procedures, cures, etc. The exact amount to be covered by health insurance for each service provided is determined by agreements made between the Union of Spa towns and Health Insurance Companies. Prices have been divided into three parts: price for the therapeutic care (including the price for the natural local curative source used in providing the balneotherapy), price for accommodation, price for meals. In regards to how medical spa services are financed, medical spa care can be divided into the following categories.

“Complete coverage” (completely covered by health insurance companies) is the most frequent type of spa care provided. This stay is provided after operations and injuries, as well as in cases of diabetes or bronchial asthma and other chronic diseases. In such cases the health insurance company bears all costs of spa treatment, including the standard level of accommodation and meals.

“Partial coverage” (health insurance companies cover only a part of costs related to the medical procedures provided) is a kind of service in cases where the insurance company only pays for the medical spa treatment and the clients themselves bear the remaining expenses for their stays at the spas, such as accommodation and costs for meals.

“Self-payment” (self-paying clients themselves bear all costs) - spa treatments which are not covered by healthcare constitutes the third type. It includes paying clients – people who pay for their stays at spas themselves, paying for their own accommodation and meals, as well as any medical spa treatment procedures according to their own choice or to the recommendation of a spa doctor.

1.2 Spa care according to the kind of local curative source

The Czech Republic is extremely rich in mineral springs and thus medical spas; the local use of natural healing springs and baths, in the form of spas which provide bathing and drinking water in the form of balneotherapy has been a long tradition for hundreds of years. These facilities make up an important region where they have been shaped by centuries of local cultural traditions. In recent years considerable innovative trends have appeared. Natural curative springs are, in the Czech Republic, defined by law [1] as being a naturally occurring mineral water, gas, or peloid which has a property suitable for therapeutic use.

Natural healing springs – local geological occurrences of mineral water are comprised entirely of deep tectonic zones of immense regional importance. Mineral springs are characterized by having different natural properties; such as a different composition, temperature, and effect of each mineral water. E.g. the hottest mineral spring in the Czech Republic is the thermal spring (called Vřídlo) in Karlovy Vary which is 73.4°C, which erupts up to 14 meters and yields 2 000 litres per minute. Nearby Mariánské Lázně, in contrast, has a cold mineral water spring with temperatures between 7-10°C. Mineral water from Luhačovice has a temperature of 10-12°C and is considered among the most effective in Europe due to a high mineral content.

Natural healing gas springs – medicinal gases are relatively rare in the Czech Republic. They are used for the preparation of natural gas baths or in injection applications.

Natural healing peloids springs – the second most important source of curative healing material in the Czech Republic is peloids. Sufficiently rich deposits of peat, fen, mud, and other matter that were created as the result of natural geological or biological processes, have constant and scientifically-proven health effects (based on both their current chemical and physical properties). Like natural healing water springs, they should be used for therapeutic purposes, either in their original condition or after being modified (which increases their healing effects). In the case of therapeutic care, they are used in hot baths and wraps after they are pulped and mixed with water [5].

Climate as a medicinal source – climate is another important factor in balneological care in the Czech Republic. There are a number of favourable local climatic spots possessing charming surroundings, such as the Priessnitz Spa Resort near Jeseník for instance. Climatic spots are such places that have favourable climatic conditions, in particular in terms of altitude and location, cleanliness, temperature, humidity and air circulation, length and intensity of sunshine, vegetation (forests, parks, meadows) and excellent hygienic conditions.

2 Findings

2.1 Categorizing Czech spa towns and medical spa facilities

Curative procedures which use natural healing springs form the basis of all activities of Czech medical spa facilities. When evaluating the state of and trends within the Czech spa industry, it is important to take into consideration the development of each particular spa facility or spa town, including the impact they have on each other.

We have come up with a method of categorizing medical spa facilities and spa towns for the purposes of marketing and operating not only the medical spa facility itself, but also providing direction to the spa town where these medical spas operate.

It is possible to distinguish four basic kinds of sources of curative treatment: Mineral waters, gases, peloids, and climate. In certain cases the sources of curative treatment have been combined. Tab. 1 shows the level of occurrence of each individual source of curative treatment, the most frequent of which are mineral waters (145), whereas climate (18) represents only a tiny fragment of the total number.

Tab. 1: Medical treatment springs segmentation

Medical treatment springs	Symbol	Total number of spa facilities
Mineral water	w	145
Peloids/peat	p	72
Gases	g	30
Climate	c	18

Source: own, based on [4].

Parameters regarding size, which are important both in regards to the health facility and its clients, as well as from the perspective of the spa town and the development of its infrastructure, contain two further criteria – the size of the spa town measured by the number of inhabitants [6], comprised of four criteria (Tab. 2); the bed capacity of the medical spa facility – the data concerning the classification of these has been classified into four groups (Tab. 2).

Tab. 2: Classification scale used

Value	Small	Small- mid-size	Mid- size- larger	Large	
Symbol used	1	2	3	4	
Spa town size	Up to 1000	1 001- 3 000	3 001-15 000	Above 15 000	Number of inhabitants
Bed capacity of medical spa facility	Up to 500	501- 1500	1501- 2500	Above 2500	Number of beds /Bed capacity
Variety of Czech traditional procedures and balneotherapy	Up to 25 %	26 % - 50 %	51 % - 75 %	76 % - 100 %	max % out of total number
Variety of non-medical /pampering procedures	Up to 25 %	26 % - 50 %	51 % - 75 %	76 % - 100 %	max % out of total number

Source: own.

The last two criteria evaluate the variety of procedures and services provided to clients at medical spa facilities. The procedures provided at Czech medical spa facilities have been divided up as follows [4].

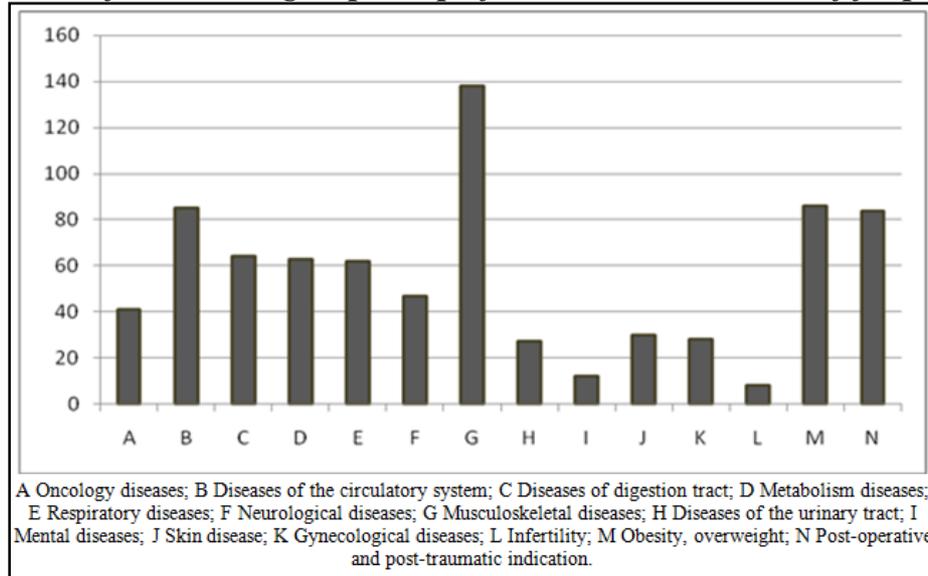
Traditional Czech medical procedures and balneotherapy, e.g. aero-therapy, natural carbonic bath, gas injections, peat wrap and balneotherapy, now comprising of e.g. diathermy, electrophoresis, cryo-therapy, lymphatic drain, magneto-therapy, etc.

Non-medical services and namely “pampering” procedures, e.g. acupressure, acupuncture, yoga, shiatsu as well as aqua gymnastics, aromatic massage, cellulite treatment, peeling, sauna, solarium, whirlpool.

The classification scale used has been divided up into size of spa town (expressed in number of inhabitants) and bed capacity of medical spa facility (expressed in number of beds) and range of procedures on offer, shown in percent. In the case of individual spa facilities, the table shows the specific number for just the facility itself; in the case of a spa town, the numbers from all facilities located in the town are presented (Tab. 2).

The range of procedures is connected to indications which have been divided into 14 groups [4] and designated with the letters A to N. In addition, the statistical reporting [2], [13] divides the indications into 11 groups designated with roman numerals, i.e. from I to XI for indications of adult clients; from XXI to XXXI for indications of teenagers and children. An overview of indication groups, as well as the rate of their representation in Czech spa town, is given in Fig. 1. It shows that indications from the group of musculoskeletal diseases are represented most frequently. Circulatory system diseases – the second in the overall order – is next, followed by treatments in the field of “obesity and overweight” and “post-operative and post-traumatic states”.

Fig. 1: Indication of individual groups at spa facilities and their rate of frequency



Source: [4].

2.2 Categorization model

The model below uses the criteria; and is thus followed by the application where the criteria have been applied (Tab. 3).

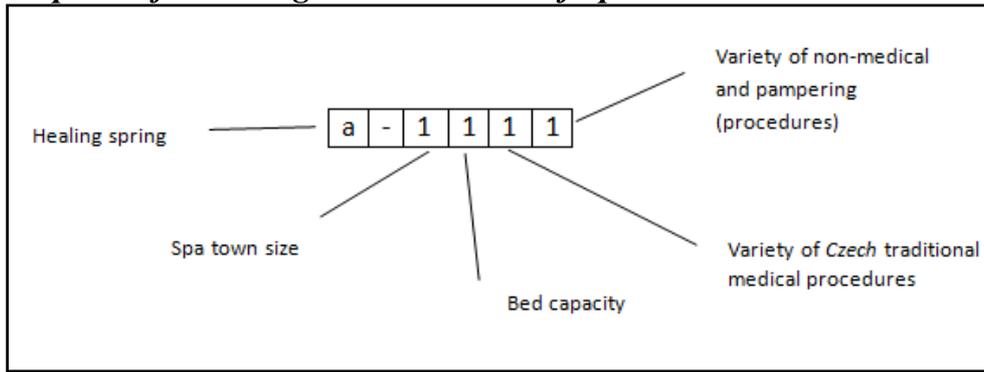
Tab. 3: Classification of the spa towns according to the proposed classification

Medical spa facility	Category	R1	R2	Medical spa facility	Category	R1	R2
Lázně Toušeň	p-2121	37	6.99	Lipová-Lázně	c-2122	101	11.04
Poděbrady	w-3222	92	7.42	Velké Losiny	w-2111	52	11.17
Třeboň	p-3223	122	12.24	Jeseník	wc-3233	121	7.58
Bečyně	p-3321	45	37.50	Teplíce nad Bečvou	w-1123	114	88.45
Konstantinovy Lázně	w-1121	25	43.14	Luhačovice	w-3332	86	34.91
Teplíce	w-4222	81	1.95	Ostrožská Nová Ves	w-3122	117	4.52
Mšené-Lázně	p-2122	105	12.18	Kostelec u Zlína	w-4122	63	0.23
Lázně Kunderatice	p-2122	36	15.09	Karlova Studánka	w-1121	64	213.36
Lázně Libverda	w-1222	97	237.12	Karviná-Darkov	w-4233	105	1.80
Jánské Lázně	w-1222	78	93.51	Klimkovice	w-3122	72	12.09
Lázně Bělohrad	p-3133	91	9.21	Karlovy Vary	wp-4443	91	12.00
Velichovky	c-1122	95	55.66	Mariánské Lázně	wg-3334	145	16.26
Lázně Bohdaneč	wp-3132	99	6.15	Františkovy Lázně	wgp-3432	48	52.52
Hodonín	wg-4121	70	1.24	Jáchymov	w-3223	111	33.03
Bludov	w-3122	74	5.42	Lázně Kynžvart	wc-1111	48	23.17

Source: own, based on [4], [6].

A subject is assigned a pre-defined value according to a set of characteristics, as shown in Fig. 2. The numbers are easy to interpret: the higher the number, the higher the parameter value.

Fig. 2: Description of the Categorization model of Spas



Source: own.

In the following text, the classification of medical spas has been simplified to give a comparison of the whole evaluated sample with the average values in the Czech Republic.

Tab. 4: Number of inhabitants of spa facilities

<i>average = 12 108 inhabitants</i>	Number of spa facilities	%
Below-average number of inhabitants	70	45
Above-average number of inhabitants	86	55

Source: own, based on [4], [6], [13].

Spa facilities are distributed unevenly in the Czech Republic, most of them operating in towns where the numbers of inhabitants are above the average, e.g. Karlovy Vary and Mariánské Lázně in the Karlovy Vary region, and the towns of Poděbrady (the Central Bohemian Region) and Jeseník (in the Olomouc Region) are also important in regards to the number of facilities. At the same time, only 9 spa towns out of the whole evaluated sample of 30 spa town have their number of inhabitants above the average values of mentioned sample, and the remaining 21 resorts have been found to have their number of inhabitants below the average.

Tab. 5: The bed capacity

<i>average = 185 beds</i>	Number of spa facilities	%
Below-average capacity	85	55
Above-average capacity	56	35
Not specified	15	10

Source: own, based on [4].

The interval between the minimum and maximum bed capacities is relatively high, the minimum bed capacity is 12, and the maximum is 641. Fifteen facilities do not mention any bed capacity, which may be caused by the fact that accommodation there is separated from the facility in which procedures are carried out. The number of facilities in spa town is shown in Tab. 5 in a more detailed scale so that the importance of these sorting criteria is stressed; it indicates that most of the facilities have available bed capacity varying between 51 and 250 beds.

Tab. 6: Traditional Czech procedures and balneotherapy

<i>average = 38 items</i>	Number of spa town	%
Below-average offer	74	47
Above-average offer	82	53

Source: own, based on [4].

Tab. 7: The variety of non-medical and pampering (procedures)

<i>average = 30 items</i>	Number of the spa town	%
Below-average offer	81	52
Above-average offer	75	48

Source: own, based on [4].

The results of the analysis (Tab. 6, Tab 7.) shows that there are above-average offers regarding traditional Czech procedures in the total number of (67) procedures, and, at the same time, the below-average offers of non-medical services and namely “pampering” procedures including 32 items are slightly predominating in Czech medical spas. If individual spa towns are evaluated absolutely in regards to the variety of traditional Czech procedures, 65 % of facilities appear to be in the “small-mid-size” classification class, 18 % are in the “small” class, 12 % are in the “mid-size-larger” class and only 5 % are in the “large” class. This is given by the curative orientation of individual medical spas and this level of variety may be considered to be adequate to resources and needs. The second evaluated level of variety concerning offers of non-medical services and namely “pampering” procedures is already more closely connected with the innovations of products especially for self-paying customers, and therefore the predominance of both middle classification classes (33 % - “small-mid-size”, 18 % - “mid-size-larger”) may be evaluated positively. On the other hand, the predominating “small” class on the 49 % level indicates the fact that a number of medical spas do not pay sufficient attention to the products and services they have on offer.

From this it can be ascertained that Czech spa facilities are, as for size criteria and variety of balneotherapy procedures, equally represented on both below-average and above-average levels. In terms of size it is certainly convenient - the client can choose according to their preferences; in terms of diversity, it can be expected that current economic pressures - especially the changing conditions regarding how Czech spas are being financed – will likely expand and diversify the range of procedures on offer, and raise the bar on how innovated they will be.

3 Discussion

3.1 Current trends in the spa industry

It has been possible to make note of trends after 2000 in the Czech spa industry concerning the number of clients and their composition as well as offers from spa care providers during the last few years. It is most apparent in particular that:

- The number of clients using the completely- or partially- covered spa care has been on the decrease;
- the number of self-paying clients has been growing;
- the number of clients from abroad has been growing;
- not only natural persons but also legal entities act as self-paying clients, such as company-organized employee recovery programmes are also becoming popular;
- with respect to the prolonged life expectancy, it is seniors that have become one of the key groups of spa guests; a specific group consists of foreign pensioners who have – in addition to free time – also sufficient financial resources;

- an important segment of clients include managers requiring anti-stress leaves that include relaxation procedures among other things;
- more attention is paid to marketing;
- services are focused on clients' wishes;
- average period of stay is becoming shorter (it must be at least 21 days in the case of stays paid by health insurance companies);
- the offer of stays for recuperation, especially relaxation, rehabilitation and wellness stays, are on the rise; medical spas are responding to the emphasis people are placing on their health and how they actively spend their free time;
- clients can choose from specialized stays or take advantage of various "package deals", e.g. programmes for different age groups, managerial programmes, anti-stress programmes, programmes for couples, anti-age programmes, weight-loss programmes, and detoxication programmes;
- new modern forms of treatment and procedures are becoming part of domestic spa offers, e.g. exotic Thai massages, "Ayurveda", cryo-therapy (curing with cold temperatures), healthy walking (as in Nordic walking), "high tech" equipment as in introducing Wi-Fi zones, and special curative procedures such as "biofeedback" technology and luminous therapy;
- combination of spa care with gastronomic experience, which reflects the ever-increasing interest in gastro-tourism, which is also a new trend;
- the offer is extended with sports activities – golf, cycling, walking, fitness, tennis;
- accompanying programmes for spa clients which take advantage of the cultural and historical wealth of Czech towns.

3.2 Description of Czech spa towns according to the categorization proposed

Thirty municipalities are included in the sample of spa towns, regardless of having membership in the Association of Spa towns. Classification of individual spa towns in accordance with the categorizing proposed has been recorded in Tab. 3, i.e. the relevant letter indicates the curative spring (with mineral waters unambiguously prevailing), figures following the hyphen indicate the sorting classes of the health resort size, bed capacities, variety of traditional Czech procedures and variety of non-medical services and namely "pampering" procedures (Tab. 2).

If the average values of the classifications of individual numerically indicated parameters are calculated, then:

- The average spa town size has the value of 2.53, meaning spa facilities operate in medium-sized spa towns;
- bed capacity of medical spa facilities in spa towns reaches the value of 1.67, which shows that they are below the "small-mid-size" category;
- average levels of procedures variety in spa towns correspond to the results achieved in regards to individual spa facilities – in both cases the average value is higher than 2; in the case of traditional Czech procedures there is the more favourable value of (2.23)

in comparison to cases of non-medical services and namely “pampering” services (2.03).

Within the sorting of spa towns, attention was also paid to two relations (R1, R2) – also shown in Table 3. The first relation (R1) describes the relationship between the level of non-medical services and namely “pampering” services and the level of traditional Czech procedures. The higher value indicates a larger range of marketing-oriented products offered by the spa facilities operating in the spa town in question. The “complementary” offer predominates in the case of nearly one third of spa towns (9 of 30); at the same time the relation value above 0.9 is achieved actually by one half of the spa towns considered. This may be referred to as evidence of flexibility and adaptability of Czech medical spas while their product offers are being created. (It should be emphasized, however, that it is in fact the offer, and not the actual performance of the offered procedures and services, that is evaluated.)

The second relation (R2) concerns the ratio between the bed capacity in the spa facilities and the number of inhabitants of the spa town. It is supposed that the higher the value, the higher the pressure to deal with the infrastructure in regards to clients in the medical spa.

It is essential for spa towns to know that health resort clients form an important group of their inhabitants, albeit temporary ones, thus local infrastructure should be adapted to their needs. Interaction between the municipality and the management at medical spa facilities should be much more intensive; this is especially true for spa towns where the share of potential spa clients in the total population exceeds one third, which is the case of ten of the spa towns out of thirty.

Conclusion

The Czech medical spa industry is determined by the economic development in the regions as well as in the individual spa town. Traditional curative spa treatment with a strong medical background, as well as wellness and tourism, are changing along with the environment, e.g. political, economic, legal, etc.

As self-paying customers relatively stay only for a short period of time on average, their dynamically growing numbers do not compensate for the missing earnings from the insured clients. The volatility of the exchange rate between the Czech crown and foreign currencies, particularly the euro, is another important factor which can be used to evaluate the development of profitability in the case of facilities with a high share of foreign clients. With reference to the growing impacts of the financial crisis, further negative tendencies regarding profitability in Czech spas can be expected. This includes, above all, a decrease in earnings due to the drop in self-paying Czech as well as foreign clients.

Experts are of the opinion that current average period of stays in spa towns varying between 10 to 15 days is economically interesting and meaningful from the point of view of health care, especially in combination with the other therapeutic methods available. Shorter periods of stays and increasing numbers of relaxation stays continue to induce a growing number of visitors who pay for spa care in full all by themselves. This group of self-paying customers is based on customer referral, has great bargaining power, and constantly applies pressure on to the spas in regards to raising the quality and scope of services on offer as well as any accompanying programmes.

Similarly, like in overseas and West-European countries, the group of self-paying customers perceives spas rather as a luxury product, with the emphasis placed on wellness

and beauty. In this group, there is a high share of people who utilize services on a regular, e.g. yearly basis, which creates a group of 'permanent' visitors to a spa. At the same time, clients who prefer only wellness programmes can choose from a large range of service suppliers even out of the spa sphere. A group of foreign visitors, who give preference to Czech spas above others mostly in regards to the historical places and architecture on offer, as well as the possibility to relax, naturally differentiates in this group of clients as well.

It is therefore clear that an entirely new approach in looking at their own services, while clearly orientating themselves to their clients' demands, has occurred in the Czech spa industry due to changing market conditions. The social and economic development of the Czech Republic brought about considerable changes in management at Czech spa facilities after the Velvet Revolution in 1989; their legislation, ownership structures, methods of financing as well as product portfolios changed. Nevertheless it can be said that these are decisive factors that form the face of the spa - they determine the social and economic development of the micro-region; their impact exceeds the borders of the micro-region in areas with a high concentration of spa facilities and impacts on the whole region can be traced. In the future, the necessary cooperation between individual stakeholders carried out on the basis of knowledge sharing, a part of which includes results of performed analysis of medical spas seems to be the basic starting point for management on encouraging growth in the Czech spa industry and the development of spas and their regions.

Acknowledgement

The University of Pardubice, Faculty of Economics and Administration, Project SGFES01/2013, financially supported this work.

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Received: 30. 04. 2013

Reviewed: 21. 05. 2013, 08. 06. 2013

Approved for publication: 13. 08. 2013