

Balneotherapy – medical, scientific, educational and economic relevance reflected by more than 250 articles published in Balneo Research Journal

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Abstract

Introduction. Balneology has a long European and Asian tradition and Romania can be the cornerstone of international bridges in this area due to its geographical position, legendary tradition and extraordinary natural resources of all kind. The use of thermal and mineral springs on the territory of the country for health and treatment purposes is a tradition with a history of more than two thousand years. Unique spa resources, such as thermal and mineral springs, mud, mofettes, saline microclimate and bioclimate (sedative or relaxing, exciting of marine seaside or plains, stimulant or tonic), are used successfully in the sphere of health care services, preventive medical actions, rehabilitation and wellness. Legend of Hercule bathing in Cerna's waters is a proof of the use of thermal waters long before the Roman conquest. This tradition exists in almost all civilizations. Today it maintains its usefulness and is spread across all continents, mainly in the Middle East and South and East Europe, Asia (Middle East, Japan, China, Turkey), South America (Argentina, Mexico, Colombia) and North Africa (Morocco, Tunisia) (244-249).

Material and method. This article is a sistematic and summarizing review of all published articles by Balneo Research Journal in its ten years of existence, from november 2010 until September 2019. All the ten volumes and more than 250 articles were analized in order to understand the main thematic of the articles, the more usefull scientific concepts, the realistic benefits of the published articles for the development of Balneology.

Results and discussions. Analizing an article database of about 250 publised articles in Balneo Research Journal can be of real impact on the development of the field of Balneology but also can drive the future of the jurnal to better understand its implications in the scientific arena.

Conclusions. Main scientific concepts with which Balneology is operating, interdisciplinary connections and interests were focused on ideas to have in mind by the authors and readers of this article.

Key words: *Balneology, Balneotherapy, Balneo Research Journal, Natural therapeutic factors, Balneary Resort,*

1. Introduction

For many medical problems such as those dermatological, allergies, pulmonary, rheumatic, gynecological, and many other problems, but especially for disease prevention, stress reduction, prophylaxis and recreation, the use of natural therapeutic factors through spa/balneary tourism represents a solution targeted by the international scientific community through different experts and by medical, social and environmental programs.

Natural therapeutic factors can not have an effective promotion on a globalized touristic market and with remarkable competitors without scientific research. Each balneary resort begins its story with the discovery of natural factors whose therapeutical value has been clinically and experimentally proven by scientific personalities of that time (244 -249).

The dissemination of information has led to the reputation of a balneary resort, and the character of the spa resort has been achieved through a good promotion of the therapeutic quality of the natural factors discovered. In balneary tourism, the importance of researching natural resources is essential for the development of a balneary resort promotion plan, thus providing information on the therapeutic properties of natural factors, their contribution to our health and the biological mechanisms by which they act on our body.

The Romanian Balneology Association has as its main objective the promotion of Balneology through scientific research, but to achieve this objective, the participation of local communities, local and central public authorities, those operating in this sector or treatment base holders are essential.

2. Main concepts of Balneology and thematic of the articles published in Balneo Research Journal:

Balneotherapy – general view

Balneotherapy is the method of treatment applied as stimulation - adaptation in the form of bathing, drinking and inhalation cures made with natural factors, with researched and recognized curative qualities, based on the chemical, thermal and mechanical effects on the body. Articles:

Healthy Aging (202)

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Metabolic fingerprinting in balneotherapy (207)

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Influence of balnear therapy at Băile Tuşnad on quality of life of post-stroke patients (95)

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Effects of mineral water from spring 3 in Băile Tuşnad on experimentally induced alcoholic liver disease (108)

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Natural therapeutic waters are widely used in most spa treatments and are classified according to their physical and chemical properties.

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Determination of protective properties of Bardejovske (1) Kuple spa curative waters by rotational viscometry and ABTS assay (189)

The therapeutic effect of carbogaseous natural mineral waters in the metabolic syndrome (208)

Studies on Physico Chemical Parameters of 5 water bodies of Ranchi (Jharkhand) (115)

An experimental study regarding the biological effects of mineral water from Spring 3 in Baile Tusnad on some organs after Ethyl Alcohol

administration (139)
Physico-chemical, microbiological and pharmacological stability of therapeutic mineral waters (216)
Physico-chemical and Microbiological Monitoring of Soltvino Salt Lakes (201)

Mofettes

The effect of carbonated mineral water and mofette treatment in Baile Tusnad after ischemic stroke – a case report (88)
Role of Mofette therapy in Cardiovascular Rehabilitation – The Covasna model (160)

Peloids (muds) used in peloidotherapy, one of the special treatments in the spa field are organic or inorganic substances formed as a result of geological and / or biological events. They are used in the form of mud baths and mud packs in various diseases.
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Artemia salina (227)
Therapeutic muds (232)
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Speleotherapy uses the microclimate of salines and caves, with certain properties, to treat many respiratory or dermatological conditions (eg burns and injuries). The presence of numerous saline and caves in our country represents a significant strategic advantage in the development of spa tourism.
In general, balneotherapy is practiced in a specific natural setting, characterized by the absence of pollutants.

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3. National and International context

According to many tourism experts, Romania possesses a rich mix of unique, world-class natural, cultural, medical and spa resources.

Different analysis confirm that there are some important changes in the demographics and trends of tourism. Every year reveals a new trend or set of circumstances that product and destination developers and marketers should take into the account. The following trend portfolio can provide a brief snapshot relevant for sustainable product and destination development and marketing.

Baby boomers (now around 60-year-olds) are becoming the most important age segment both for their time availability and economic resources.

Solo traveler, especially for females, is becoming increasingly more common. Importantly, today's travelers, either solo or in group, seek for multi-activity holidays with opportunities to learn and experience the local culture.

Importance of millennials and their travel habits is growing fast. They are expected to represent 50% of the travelers in 2025 and their need for exploration, interaction, and emotional experience must be taken care of. This segment is heavily dependent on modern technologies and their decisions are mostly driven by digitally available information and resources. Unlike baby boomers, millennials are embracing new technology, experiences, and ways of traveling by often utilizing ride-sharing apps when they travel, and using sharing economy services for trip accommodation. Millennials are also lusting after new experiences and are most interested in recommendations that expose them to something new, and prefer to be contacted via email or social media rather than in person.

Consumers will demand more individual and authentic travel experiences in future and will rely more than ever on technology to plan and enjoy their trips. Consumers will continue to focus on their personal financial situation, holiday prices and value for money offers while the image and stability of destinations will also have a strong impact.

Travelers will take advantage of modern technology to adapt their travel behavior, especially how they use information and buy travel products and services. People will rely more on personal information and recommendations available on commercial and social websites, and will use mobile technology to access

travel products and services both before and during their trips.

The average level of formal educational attainment is rising globally, for both males and females. Higher education levels are strongly correlated with demand for outdoor recreation activities. Thus, there is a general trend towards appreciative activities, with more travelers seeking life-enriching travel experience. There is growth in general interest tourism that involves learning-while-traveling, in specific learning travel programs (e.g. educational tours), and generally in learning activities, such as wildlife viewing, attending festivals, cultural appreciation and nature study. Tourism of this kind requires explanatory materials (e.g. guides, booklets, mobile presentations, etc.), interpretive facilities (e.g. in visitor centers) and interpretive guiding (e.g. eco-tours).

Advances in health care mean that people are living longer. Older individuals are staying healthier longer. Although physical capacity decreases with age, older people are increasingly able to lead healthy, physically active lives. Elderly people maintain, or even extend, their interest in other outdoor activities, such as walking, nature study, fishing or wildlife observation. A reduced demand for camping sites is offset by a greater demand for more comfortable lodge accommodation, caravanning or health and spa tourism. Older visitors present some challenges for planning and management. There will be a need for more accessible toilets and for trails with lesser gradient; also for greater provision for people with disabilities. On the other hand, older visitors represent an opportunity. They tend to be more interested in the kinds of experience offered, have more disposable income, and are more willing to pay for higher levels of interpretation, guiding and other services.

Millions of people around the world want to travel, have the time and money to do so but are forced to stay at home because of insufficient facilities. With improved accessibility, however, the market for people with disabilities or physical restrictions could develop strongly. When including travel companions, the potential size of the "accessible tourism" market is even bigger. One underestimated fact is that with demographic ageing in Europe and other developed countries the proportion of elderly people with mobility restrictions, disabilities or other limitations such as reduced sight or hearing will inevitably increase. However, this group will still be travelling

given an adequate and accessible form of travel is available in the destination.

More and more, men and women are adopting each other's characteristic role in the workplace and in the household. Women are becoming more prominent, even numerically dominant, in the paid workforce. And women make a greater demand for recreation and tourism opportunities. Indeed, it is often women who determine the choice of travel destination. There are differences between the interests of men and women at the individual activity level. While there are, of course, many exceptions, men tend to be more interested in physical challenging activities, and women tend to be interested in more appreciative activities, such as nature and culture studies and ecotourism.

For many people, leisure time is increasing due to a shorter working week, increases in the automation of housework and other factors. Yet, leisure time is decreasing for others; for example, working women who retain household responsibilities. Growth of single parent families increases the leisure time of the absent parent yet reduces that of the responsible parent. Often young people need to work to support their education, or expand their purchasing power, so they have less leisure time. Short and fast trips, particularly 2 to 4-day weekend trips are a result of this with a growing tendency.

Tourists are increasingly demanding high quality recreational opportunities and the services that support them. Those who receive quality service during their stay normal working week expect to be offered this by their leisure providers as well. They expect guides to be knowledgeable and good communicators. They want their hosts to make them feel welcome, comfortable and part of the communities they visit. Increased rural- and ecotourism in Romania means greater demand for specialized recreation and accommodation, all with a focus in quality. The challenges for service providers include ensuring they have service quality goals, programs to deliver high quality service and monitoring programs in place.

There is an increase in leisure time due to earlier retirement and longer life spans and changes in work conditions. Older, retired people are also able to travel for longer periods each year. Rising incomes are driving up the volume of domestic tourism, and of outbound traffic.

As the world's fleets of passenger aircraft and cruise ships expand, visitors can travel more efficiently, quickly and further afield. The proliferation of air travel and public transport connections has improved the accessibility of remote and rural destinations, with people seeking out for World Heritage Sites, National Parks and other attractions. This trend will continue and in general destinations should prepare for welcoming visitors from around the world, while being aware of the challenges in terms of language, culture or knowledge and preconceptions.

People express concern about social injustices and environmental problems. They are themselves moving from consumptive to less consumptive activities, often adopting "green consumer" life styles. Tourism development requires an understanding of consumer developments and changes of consumer behavior or travel motive. The experienced and sophisticated traveler has a more critical attitude to quality, and to the price-quality ratio. Environmental consciousness will continue to increase, which results in more demand for sustainable destinations. There are also structural changes on the supply side in the accommodation sub-sector, transportation, tour operator and distribution systems, which need to be reflected.

The demographic factors of modern society record phenomena such as the aging of POPulations and the increase in the incidence of diseases related to the generalization of urban, sedentary lifestyle. Spa tourism can be an easy to implement alternative for restoring the individual's health and to act prophylactically and preventively to maintain an optimally functional balance of the individual's biological and psychosocial parameters.

European spa resorts offer a diverse range of services. At present, the use of the natural therapeutic factor in medical services is accompanied by a series of techniques to help patients improve their health (physiotherapy, physical therapy, etc.). The medical act in the spa resort can be oriented towards prophylaxis, treatment or recovery. Every year, European spa resorts generate a turnover of over 20 billion Euros.

Direct employment of more than 500,000 people and supporting an additional 1.2 million jobs in related fields makes the sector one of the largest employers in the EU, both in healthcare and tourism - especially in the which industry is less developed. At the beginning of the millennium, in many countries of the

world there is interest and concern to limit the negative effects that economic development had on the health of the POPulation. One of the effective ways of fighting against modern civilization diseases is offered by spa tourism. The international trend is that of return to nature for treatment and recreation, and from this point of view spa resorts are obviously a suitable destination. Due to this fact and the beneficial effects on the economic and social level, countries that have natural therapeutic factors and a tradition in their exploitation, including Romania, establish diversification and re-launch, development and modernization strategies for spa tourism.

Concepts and new orientations in modern medicine, which address health as a fundamental human right, the introduction of health-related criteria of quality of life, lifestyle, well-being has led to a reassessment of health care in spa resorts, of balneology in general, as well as of traditional tourism. Traditional balneology and traditional tourism have shown goodwill tourism, health tourism, or prophylactic health belts, based on quality of life, closely intertwined with health protection and a valid psycho-physical relationship. The new assessment criteria show the huge leap in natural natu- ral therapy since the crisis when it was reproached by the lack of a solid scientific foundation, the methodology being largely based on empiricism, multiple studies and scientific researches have proven the effectiveness of therapeutic and recovery treatments in different disease groups, based on a complex methodology.

The modern assessment of health, well-being and quality of life require the continuation and development of scientific research activity, to determine the mechanisms of action and the curative effects of natural therapeutical factors. Research on the methodology and effects of "health care", which is the most important area of primary prophylaxis of major diseases in lifestyle pathology in the civilization of the new millennium, is considered to be a priority. Thanks to the natural factors of cleanliness and the modern appliances from the treatment bases, the spa resorts in the European Union can offer both the possibility of treating the various diseases through the therapeutic and recovery balneology, as well as solutions for preventing the illness and maintaining the state of health through wellness balneology (health straps). In Europe, the last twenty years have seen, as experts in the field, a unprecedented revival of spa tourism. The countries

in the European Union with a tradition of rewarding the natural therapeutic factors, Geramnia, Italy, France, Spain, have paid particular attention to this area and have supported investors in everything they have done around these health sources. With our entry into the European Union, Romanian balneology has become an integrated part of the European single market. Under these circumstances, it faces a major challenge. If the offer does not meet market standards and exigencies, the beneficiary will choose another destination. At European level, as scientific arguments for alternative and wellness-specific therapies become more numerous and influential - the distinction between medical and wellness tourism is significantly diminishing. The Romanian spa sector needs to become aware of these trends and as the destination for Romania to appear as one of the first destinations that have fully integrated this paradigm shift. The Council and the European Parliament endorsed in February 2011 a directive aimed at facilitating cross-border access to safe and high quality healthcare and promoting health cooperation between Member States. The spa tourism can not exist without the natural therapeutical resources and without the context given by a spa resort.

4. Research perspectives for Balneology

Currently, the main challenges faced by the European Union to improve innovation capacity are linked to the insufficient focus on poles of excellence able to compete globally, poor integration of elements in the knowledge triangle, insufficient trans- and interdisciplinary research focused on needs innovation, the lack of governance models and the organization of research and education at European level, the high cost of patenting in the EU and the low mobility of researchers.

Romania can develop a quality spa tourism with its approximately 8,500 mineral and thermal springs. The Balneary Tourism Employers claim that Romania is the richest country in Europe in terms of the spas, accounting for about one third of Europe's mineral and thermal springs, but only 10% of the springs are exploited due to the gap in scientific research.

The awareness of the potential for the development of spa tourism in the context of the use of the strategic advantages offered by the scientific research of the natural factors is, unfortunately, very low.

The Romanian Balneology Association has as main

objective the research and promotion of the natural therapeutic factors and the development of the Spa Resorts, which is why this professional organization is directly interested in the implementation of a strategy for the development of the spa tourism in Romania. The contribution of Romanian specialists to the scientific substantiation of natural cure therapy is remarkable. Since 1949, when the Balneology and Physiotherapy Institute of Bucharest was established, balneoclimatology has made special efforts for the complex study of the natural therapeutic factors, both physicochemical, microbiological and experimental pharmacological, as well as clinical and therapeutical. Medical and technical staff have conducted systematic research in clinics, laboratories and spa resorts. Complex studies and research have been organized, new valuable sources of natural factors have been discovered, studied and exploited. The results of these studies were published in a collection of 11 volumes of "Balneology and Physiotherapy Studies and Research", in a monograph in 3 volumes "Mineral Waters and Lakes in Romania" during 1960-1972, as well as in numerous "Methodological Targeting "and" Guidelines for Treatments in Spa Resorts ", published in 1960, 1965, 1975, 1986. The contribution of the Romanian researchers to the balneary knowledge level is remarkable and allowed to exploit the extraordinary potential of the natural therapeutic factors in Romania, in the period before the revolution. From this point of view, we have had an enviable position compared to other states in Europe.

Unfortunately, after 1990, scientific research has experienced a significant decline, which, coupled with the lack of investment and bad policies, has generated the current state of spa tourism. The re-launch of the spa tourism in our country and the alignment of our spa resorts with the standards existing in the other European Union countries now depend on a complex of factors that are the subject of this strategy.

5. Medical relevance of Balneotherapy

Health, a fundamental right of all individuals, is a state of physical, mental and social well-being and does not consist only of the absence of illness or infirmity, as defined by the World Health Organization definition.

Welfare, necessarily accompanied by a good state of health and physical vigor, also regarded as a

centistatic medical concept, is an indeterminate feeling of the existence of the body, perceived in consciousness as a positive tone, characterizing what we call quality of life, directly dependent of lifestyle. This strategy aims to create the premises for the continuation of the local spa tradition, by raising the scientific level of research on natural factors with therapeutic potential, so that it is possible to update the scientific foundations through experimental studies meeting the modern requirements and completing the studies so far.

6. Economic relevance of balneotherapy

The prolonged transition period, the fall of the economy, the decline in purchasing power, the faulty management, the lack of investments, the legislative framework, have generated the degradation of the material base in the resorts, both in terms of obsolete and morally outdated equipment from the treatment bases, protection and research of natural factors that have deteriorated considerably.

The economic growth registered by our country after 2000 has also been reflected in a reversal of the offer of Romanian spa tourism, a tendency to modernize hotel and treatment structures, diversification of the offer, reflecting the conviction of the companies that carry out their activity in domain that this form of tourism will record a steady increase in demand.

Any future strategy for the development of the spa tourism sector, as well as any health strategy aimed at a sustainable state of health of the population, should start from the source of these fields, namely the natural therapeutic factors. Until the determination of the therapeutic value of a natural factor, however, complex studies and research are needed to provide the scientific foundation needed to support such statements. Therefore, it would be unnecessary to develop the benefits of developing Romania's mineral potential without investing in the research capacities of these natural resources.

Romania offers wide range of tourism experiences and has a potential to further unlock their capacity for the economic growth at local, regional and central levels. The forms of tourism currently available in Romania can be grouped into the following groups:

1. Nature and Adventure
2. Mountains and Skiing
3. Culture and History
4. Health and Wellness
5. Sea and Sun

6. City Breaks
7. MICE
8. Gastronomy

After analyzing the data from Tourism and Travel Competitiveness Index and where Romania holds comparative advantage and potential for further development compared with other competing countries, flavored with modern tourism development trends and ‘visitor experiences’, we see that Romania is better positioned to focus on four major key segments to further boost international spendings and average stay of international tourists in Romania:

- Cultural Heritage, Cultural and History Tourism (flavored with gastronomy)
- Nature and Adventure, covering Eco and rural tourism
- Health and wellness, concentrating around the Romania’s rich SPA resources
- Meetings, Incentives, Conferences and Exhibition (MICE)

Prioritization and further development of the remaining three segments is also very important for domestic purposes, as it represents about 80 percent of all travels in Romania:

- Sun and Sea
- Mountain and Skiing
- City Breaks (high potential in terms of yield)

Nature and Adventure is a niche type of tourism, involving visiting fragile, pristine, and relatively undisturbed natural areas, often in remote and rural places. Nature and Adventure is a combination eco and rural tourism activities. Eco and rural tourism embrace the principles of sustainable tourism from economic, social and environmental stand point.

Romania offers competitive price on the packages and has certified ecotourism destinations and private stakeholders. Furthermore, Romania is a home to Carpathian Mountains with more than 77% of its remaining virgin forests and UNESCO inscribed Danube Delta, pristine landscapes and rural facilities, preserved traditions and customs in the rural areas, and authentic, natural and traditional products - all of these making Romania a competitive destination.

Furthermore, WEF’s Travel and Tourism Competitiveness Report for 2017 suggests that Romania’s ranking on Attractiveness of Natural Assets is 62, which is higher than EU’s average of 67, South East Europe’s 68 and bordering markets’ 105. Simultaneously, Natural Tourism Digital Demand (Number of online searches index) ranking stands at

77, which is lower than EU’s average of 53, SE Europe’s 69, but still higher than the neighbors’ 94. While Romania has better assets than it’s competing markets, or even EU at average, the country can be better presented and marketed through digital media to attract higher number of visitors from the affluent markets.

Researchers estimate that 8 bln visitors arrive to the world’s 140,000 protected areas every year⁶¹. The research also calculated that these protected areas brought in at least \$600 bln to national economies. According to the Rainforest Alliance, nature-based tourism accounts for about 20% of international travel. The Adventure Travel Trade Association’s “Adventure Travel Trends Snapshot” reports nature and adventure segment has the highest level of client demand overall for travel activities in 2017.

While traditional tourist market for resorts seems more and more mature and its growth remains constant, tourism-based experiences such as eco and rural tourism is among the sectors that will develop very quickly in the next two decades according to the International Ecotourism Society (TIES), which estimates that international market of nature-based tourism is growing currently at least by 10-12% annually.

Indeed, according to the global Sustainable Travel report elaborated by Booking.com and released in April 2017, 65% of global travelers expressed the intention of staying in an eco-friendly or ‘green’ accommodation at least once versus 34% who stayed in one or more in 2016. In addition, 68% confirm they are more likely to consider choosing an accommodation knowing that it was eco-friendly, with Chinese (93%), Brazilian (83%) and Spanish (80%) travelers. For 79%, sustainable considerations also impact their mode of transport when travelling, with 43% taking public transport whenever possible, 42% trying to walk, bike or hike as much as possible and nearly one fifth (18%) flying less to reduce their carbon footprint.

The health and wellness tourism is defined as a form of tourism, when people travel to maintain and improve their well-being and health. This definition obviously includes medical tourism or spa tourism, but also allows to extend the concept of wellness to all tourist products that involve a stay, whether it is for business or leisure, that compliments the traveler’s daily balance or can even improve it.

In Romania, health, spa, wellness or medical tourism

are generally called “balnear tourism” and have a long tradition, being mentioned during the Roman Empire domination of present-day Romania (e.g. Baile Herculane - Hercules Baths, Geoagiu Bai – GERMISARA). Over 160 localities in Romania benefit from therapeutic mineral resources, a part of them are declared national or local tourist resorts or “balnear” resorts according to the Romanian legislation.

It is estimated that around a third of the natural mineral springs in Europe are located in Romania. Well-established spa tourist resorts are scattered across the country, the most important being Băile Felix, Băile Herculane, Sovata, Tuşnad, Vatra Dornei, Techirghiol and Mangalia, Călimăneşti - Căciulata, Olăneşti, and Govora.

According to scientific studies, due to the important and valuable therapeutic natural factors (mineral springs, mud and gases) existing in the entire country and offering a diversity of treatments (cardiovascular, rheumatic, digestive, gynaecological and reparatory affections) together with their prophylactic function, namely the prevention of the diseases, Romanian health tourism has a great potential for development. The tourism product offered by spa resorts is mainly focused on treatment i.e. medical healthcare, convalescence elements mainly addressed to sick and elderly people, but some resorts offer also wellness packages. The wellness component still has significant potential of growth, being able to address the needs of domestic and foreign visitors.

In 2017, there were 577 registered accommodation establishments in spa resorts, 7,3 % of all accommodation units in the country. The tourist units offered 36.631 bed-places – 10,6 % of all registered bed-places.

The number of tourists accommodated in 2017 in the spa resorts was of 945,527 people representing around 7,7 % of all the accommodated tourists in Romania during the year. The spa resorts account for 4,204,898 overnight stays during a year, representing 15,5 % of all the yearly overnight stays registered in Romania. The domestic tourists represent over 95 % of all tourist arrivals and over 96% of all overnight stays in spa resorts. This gives an indication of the importance of spa tourism in Romanian tourism in general: even though not attracting that many tourists (7,7 %) they account for more than 15,5 % of all the overnight stays registered by the Romanian accommodation facilities in one year. It is also obvious from these statistics that spa tourism, the

main social tourism form, is almost exclusively driven by local Romanian demand. Indeed, only 1.7% of all the foreign tourists accommodated in 2017 in Romania have stayed in a spa resort.

Concerning the Romanian clients of the spa resorts, they are mainly seniors. The Romanian senior tourists are generally retired persons with a medical travel motivation and sometimes benefiting from a State subsidized voucher for spa treatment including accommodation and meals. Because of the Communist past, in Romania the pensions are almost only public ones and given several other concurring factors (there are currently 9 retired persons for 10 active ones, the ageing of the population, the low ratio of active persons in the overall population, the low level of incomes in Romania) the pensions represent a low income: average pension in the first trimester of 2018 was around 1.122 RON (approximately 240 EUR). This represents a very low level not only compared to the European average pension, but also to the Romanian average net salary of an active person: around 590 EUR in April 2018. In conclusion the spa tourists are, in Romania, almost only low-income ones.

Therefore, a significant percentage of the spa resorts customers are tourists benefiting from tickets offered by the state social insurances system. Between 1993 and 2003, the total number of vouchers granted by the National Pension Funds and The National House of Pensions and Other Social Insurance Rights (CNPP) almost doubled from 148,143 vouchers to 334,817 vouchers. The last 15 years registered a significant fluctuation in the total of number of vouchers provided to the POPulation; still the general trend was of decrease, even if it grew up again during the last years, as the duration of the subsidized stay has been shortened.

In 2017, the 203,299 publicly subsidized treatment vouchers accounted for 3,049,485 overnight stays in spa resorts. Thus, the publicly financed voucher system accounts for almost 3/4 of the total number of overnights stays and for only 21.5 % of the total number of tourists accommodated in the spa resorts. This indicates the high dependence level of Romanian health tourism to the public voucher program and the correct definition of the current wellness and medical tourism as mainly social tourism. Therefore, wellness tourism registers the highest values of occupancy rates: 42.7% as compared with the national average of around 31% of the total number of places available

during a year. On the other hand, the average stay in the tourist units is significantly superior to the national average, namely 4,5 days/tourist, while the national average is around 2.2 days/tourist. Through this mechanism, most of the private operators accepted to rely on the retired people subsidized by the spa vouchers mechanism. The incomes were considerable, but the profitability was low and most of the public or private companies have not made any new investment to renovate their facilities. Today, most of these hotels do not respect or reach the quality standards to attract foreign tourists or non-subsidized Romanian tourists. This system ensured and ensures constant but low yearly revenue that made investment difficult. With the decrease of the voucher volumes or of their duration in the recent years this whole economic model is under additional stress and needs to diversify its offers and to attract foreign clientele. The tourism flux variations in the spa resorts are the consequence of the subsidized treatment vouchers provided to the residents and of the organization of their tender procedure. As a consequence, the seasonality in these resorts was less pronounced than the other segments of the tourism industry during the previous years as the tender procedure was organized at the beginning of the year. Then it was organised during springtime and this year the tender procedure finished during the month of June. The peak season remains during the summer months but the lack of subsidized tourists during the first 6 months of the year is creating major issues for hotels and treatment facilities owners as they have more employees, especially medical staff, and higher facilities maintenance costs.

Romanian spa resorts are key tourism assets due to the quality of thermal springs, the location of these resorts, their historical heritage, the national custom of having spa holidays and the new international trend in spa & wellness tourism.

Meetings, Incentives, Conferences and Exhibition (MICE) is one of the leading sectors of tourism in terms of expenditures per traveler. Worldwide, tourists traveling for business reasons or congresses represent 15% of all travelers. This may seem a smaller figure in comparison with the number of tourists who travel for leisure or holidays (53%), however, the benefits that the MICE brings to a city or destination are many, especially for smaller cities or regions that are not amongst the major

international tourist destinations:

1. Economic impact: There are many tourism related sectors that also benefit from the arrival of this type of tourists. Other businesses complement the needs of these visitors and benefit indirectly from all the activity generated by these events. Bucharest and other larger cities in Romania with well-developed tourism sector hold a big potential to promote MICE tourism.
2. Reducing seasonal limitations: One of the main reasons that cities in Romania should promote the MICE segment is because it helps mitigate the seasonal nature of a destination. Congresses, meetings and events are usually held during the months when there are no holidays, and, many congresses and fairs are programmed midweek depending on the audience and field that they are aimed at. The times of year when there tends to be a peak of events are from April to June and from September to November. This means that the events segment can perfectly complement the leisure segment and help to provide a more constant flow of activity and visitors, therefore allowing the creation of more jobs and more stable work contracts.
3. An alternative to saturation: When a mature destination arrives at a point where it has a saturation of tourists in high season or certain days such as the weekends, it is necessary to look for alternatives to halt this situation. This is what happens in mature resorts that base their strategy around “sun and sand”. When an alternative exists such as MICE tourism, it isn’t necessary to dedicate so many resources to promoting holiday tourism. More visitors will arrive, but in a more staggered way and so a more sustainable business model is achieved long term.
4. Better quality tourism: The MICE tourist spends on average double the amount that a traditional tourist spends, even up to six times more depending on the destination. Their tourist profile is one that expects to receive more premium services and tends to use more additional services. The average daily spend is also greater, being around EUR 200, and can be more depending on the city that is hosting the congress.
5. Bleisure: Many tourists traveling for business purposes will extend their stay to spend a few days discovering the destination. As shown in the study by the IE Foundation, 67% of business travelers state that they often take some free time when they are traveling on business and 58% will often add a day or two onto their stay to get to know the city. Others expressed

their intention to return to the city with their family to spend a few days.

6. Promotion at international level: Capturing large international congresses that are attended by hundreds or thousands of delegates from all over the world puts a destination on the map; not only because of the number of travelers that visit the city, but also for the repercussion that the congress may have in the media. Hosting congresses attracts more congresses, especially those that have the same organizational characteristics. Once a city has proved it can host certain types of congresses, fairs and events it is much easier to sell the destination and ensure that the organizers choose it.

7. More competitive destination: To be able to attract different types of tourism and not concentrate on just one segment makes a destination much more competitive against other destinations which are aimed at just one market. When external circumstances change and affect a tourist segment, and as a result the number of tourists declines, it is much easier to compensate or reverse that situation when you are targeting various segments simultaneously and your product range is more diverse.

Tourism is an all-round industry, impacted by both public policies and public and private sector investment decisions. The right development of the tourism sector and service delivery can only be guaranteed through quality education and training. To have a better understanding on the skills and competences requirements for the Romanian tourism sector, they need to be considered in a broader socio-economic context.

The European Commission estimates that less than 20% of high school and university graduates choose to work in the hospitality and the tourism sector. However, as observed, many qualified for the tourism sector prefer to find a job abroad. Migration applies to both, high and low-qualified personnel. Employment in tourism sector in Romania is rather unattractive mostly due to low pays, lack of career opportunities, and unstable working conditions due to the seasonality. Moreover, the level of use of modern technology in the industry is rather low. Thus, considering these factors there is a relatively low productivity of the labor force.

As suggested by number of studies, the staff in travel agencies is highly educated, whereas a large part of the personnel in other tourism areas is low qualified.

They work on temporary basis and are mostly hired on a short-term contract. On the other hand, there is another phenomenon of over-qualified personnel working in the tourism sector, educated at university level, but in a different field, not related to tourism.

The sector is in need of skills at both the operational and the managerial levels. In general, the tourism sector in Romania needs to better respond to the new dynamic developments and better utilize IT and digital technologies and at the same time, build sustainable workforce 76.

7. Educational system and Balneology

Education System in Romania – Vocational and Higher Education

Currently, the Hospitality and Tourism related education and training in Romania is offered mainly at number of specialized high schools, vocational institutions and at economic and geography faculties of selected universities. All of these are managed by the Ministry of Education.

Addressing the needs of education for tourism sector must be looked holistically with participation of all stakeholders, including the government and academia, employers (private sector) and associations and unions. At present this is a decentralized system organized at the national, regional, county and local levels and involves the following stakeholders: employers, professional associations, employees, trade unions, public administration, relevant government organizations and civil society organizations. It looks like that participation and consultation mechanism is in place, however, it needs to be strengthened to achieve efficiency and results.

All qualification courses in the field of tourism are based on occupational standards that are issued by the National Accreditation Agency and approved by the employers' councils. Training providers need to comply at least with 75% of occupational performance standards whilst 25% can be modified, depending on the local specific needs of the training. Yet, according to training providers, occupational standards are often rigid and outdated (not responding to the market needs) and the process of revision is highly bureaucratic. According to the experts working in training provision, they are not aware of functional systems for consultations with the government on issues of education in tourism.

The tourism sector is characterized by high

seasonality of work. This fact reduces the possibility of, for instance, formal training through the European Social Fund (ESF) projects. This is largely caused by the fact that during the high season, staff cannot attend courses, but during the lower season most of the staff is not employed and therefore is ineligible for various training modules.

Over the past years, Romania has experienced a decline in vocational education and training (VET). Even though Romania ranks high on youth unemployment in Europe (16.8%)⁸⁰, VET has a relative low popularity among young people in Romania. On annual bases, more than half of the available spots in VET institutions remain unoccupied. At the same time, the ability of private enterprises to provide quality on the job training remains limited to those in the large cities⁸¹.

Recently a move towards restoring the attractiveness of VET can be noticed. The demand towards tourism is much higher than other technical specializations. Yet there is the tendency that courses are rather general, even in tourism.

The professional and technical education in Romania, specifically for tourism, consists of several forms of education: (i) School of Arts and Handicrafts (2 years plus 1 year of completion), (ii) the superior cycle of technological high school (2 years), (iii) Technical high school (4 years), (iv) Post-high school (2 years in tourism and services).

To pursue with tourism education, students can enroll in a technological high school at grade 9 and attend it for at least 4 years. An alternative route for tourism education is to get enrolled in a school for Arts and Handicrafts and then attend a completion year, followed by the second cycle of the technological high school. The school of Arts and Handicrafts provides level 1 qualification for hotel workers. After completing this school there are two options for continuation, a student can either enter employment or continue towards a high school certificate. The latter involves one-year completion and two years of technological high school. The level of completion provides a level 2 qualification for hotel workers.

Post-high school is part of the vocational and technical education and has a duration of two years in the area of Tourism and Food.

On the other hand, the superior cycle of technological high schools provides level 3 qualification as technician in tourism and banqueting organizer. Upon completion of the lower and superior cycle of a

technological high school, students receive level 3 qualification as technicians in tourism.

The tertiary non-university education (post-secondary and VET or Post-high school) provides level 3 qualification (advanced) for the following positions: (i) travel agent and guide, (ii) inventory assistant in accommodation and food units; (iii) assistant for Manager hotel units, and (iv) conference, congress, fair and exhibition organizer.

Yet, there are some weaknesses in the Romanian vocational training in the hospitality sector. According to the World Travel Organization the training in the hospitality sector does not correspond to the employer's needs. There are only few partnerships between schools and employers, there is a weak infrastructure in schools, and employers have a poor capacity to meet training roles for students. When on one hand the teachers in schools are well qualified, the schools often lack the modern infrastructure, and do not have modern laboratories, equipment, etc. With these circumstances, the only way for students to get proper hands-on experience is through practical training at the employers' sites. Yet, there are a few challenges to overcome to make this system work. Often, the same as with the schools, the providers of training also lack an appropriate training infrastructure for incorporating the needs of incoming students. As such the old establishments have been renovated for profit making activities and less for training whereas the new buildings did not foresee space for training from the beginning.

The major source of qualified personnel in the Tourism and Hospitality Industry in Romania comes from the higher education institutions. Romania has a well-developed network of universities that offers tourism classes. In total, there are 57 public universities, 37 private and accredited higher education institutions, and 10 private higher education institutions with temporary accreditation. Universities cover wide range of tourism competencies, however mostly through the faculties of Economy or Geography.

Out of the 57 Public Universities, 15 offer a degree in the area of tourism, mainly specialized in tourism and economics. There are 3 universities that offer a degree related to Tourism in Geography departments. In 2015, the total number of admission places was 835 (300 in the faculty of geography and 535 in the faculty of economics).

From the 47 private higher education institutions, 7

offer a degree related to tourism. The number of available spots in tourism at private universities is higher than at public universities, accounting for 3005 places (200 in the Department of Geography, and 2885 in the Department of Economics). Additionally, there are 12 Public Economics Colleges leading to a degree in the area of Tourism, with a total of 360 places. Finally, there is only one special school of Hospitality and Tourism studies, or a Faculty of Tourism and Leisure, Recreation Sports and Tourism. The main subjects that cover tourism at universities are: Statistics in tourism, Geography in Tourism, Economics in Tourism and Tourism Enterprise, Communication and Branding in Tourism, the Natural Potential of Tourism, Culture and Civilizations, International Tourism, Architecture, Tourism and Environment, Assessment of Tourism Potential, Tourism Policies and Strategies, Management of Risk in Tourism, Corporate Strategies in Tourism, Management in Tourism, Hotel and Restaurant Technology, Eco-tourism, Rural Tourism and Sustainable Development, Tourist Marketing, Negotiation in Tourism, the Activity of Travel Agencies, Human Resource Management in Tourism, Aesthetics and Design in Tourism, Consumption Behavior in Tourism, Animation in Tourism.

The first cycle of higher education takes three years and provides diplomas for the following occupations: (i) officer at a tourism agency, (ii), tourism guide, and (iii) analyst in tourism. There are also distance BA's and MA's. There are MA classes in Management and Marketing in Tourism, Economy and Management of Services, Business Administration in the Hotel Industry. Upon completion of a MA, students are qualified to work as managers.

Employers are involved in the provision of training that accompanies faculty based education, yet there is reluctance from employers to receive students in training, as there is the cost and the need to allocate additional resources (personnel, time, space), the short duration (35 work days) that does not allow for meaningful involvement of the trainees.

MICE: Romania has a big potential to unlock potential for MICE development. The most of the required attributes are already in place (affordable hotels, good and frequent air connections, supplementary tourism offers, etc.). Although lack of required infrastructure, limited coordination mechanisms and lack of promotion hinders the

process. There is a need for an adequate conference infrastructure (multifunctional convention centers that can accommodate large scale international events for over 3000 people); Even in Bucharest, the House of Parliament, which can accommodate big events is not always available and given its strategic function may impose additional challenges for security clearances for the participants and logistics. A functional Convention Bureau (the private sector had such an initiative - the Romanian Convention Bureau, however it is not functional today) can solve the issues of coordination within the private sector and serve as a liaison between the organizers and the suppliers. Attracting 4 and 5 star hotel investments in Oradea, Iași, Timișoara, Cluj and Brașov will most likely kick-start MICE development in these destinations.

Education and workforce: Currently, Romania experiences a low level of unemployment and workforce shortage in tourism. This is a symptom for personnel crisis. The Ministry of Tourism, in close coordination with the Ministry of Education and the Ministry of Labor, should develop an approach how to address the issue. The identified actions can become a key to solve a high level of youth unemployment in the country, as youth is most attractive segment for tourism industry.

There is a sufficient shortage of skilled and experienced staff for spa resorts/facilities, which means on the accommodation and catering part and on the spa treatment part. The main human resources challenge is currently the lack of medical staff, especially of specialized doctors. Indeed, it is difficult to retain the trained staff as activity is limited several months a year because of the late organization of the tender for the subsidized public vouchers system that creates a strong tourism seasonality. European funded projects have been implemented in a few spa resorts to better qualify and to try to retain current employees, but it is still not enough. The Spa tourism industry wishes some institutional changes such as to create short-duration training courses for the specialty of balneo physiotherapists targeting family physicians and to recognize their diplomas in order to allow them to practice in spa treatment facilities. Staff Training. In the last year, only a few staff from the MoT had an opportunity to enhance their skills in selected disciplines. To catch up with the developments of the sector and obtain skills in modern technologies (online platforms, marketing,

promotion, etc), more staff should be brought into skills development. Having a designated calendar of training events and inviting international and local experts to train staff is a wise investment.

Given the fragile state of the industry and low level of services offered, quality enhancement trainings on various topics, such as customer service, tourist (information) services, product development and clustering, value chain opportunities, project design and management (to apply to funding sources), hotel, café, or restaurant management, food safety, etc. should be organized for industry workers at all levels. Or alternatively, the MoT, in close coordination with the respected municipalities and institutions should offer these courses by consolidating the expertise, available in the country.

Another weakness that country experiences is the absence of destination management organizations. Romania is finalizing the respective law. As soon as the DMOs are in place, they should be tasked, among others, to engage in product development and promotion at local and international levels. Marketing and Promotion. The social media analysis showed that Romania's image is improving, but still remains somewhat negative, or unknown. The negativity is largely driven by the political processes and their wide coverage by leading media sources.

With limited monitoring and evaluation frameworks and tools in place, it is hard for the MoT to assess the success of implementation of any campaign or initiative, or even participation at a certain expos or fairs, as they lack key performance indicators and other measures for assessment. Tourism satisfaction surveys and market segmentation efforts should be an ongoing process to inform the operations. Digital tools, online platforms, social media and intelligence (user generated data) are not used either.

Although selected DMO equivalents exist at local levels (Sibiu, Oradea, Prahova), promotion and product development at local and regional destinations is still scarce. Agendas with reason-to-come events such as large scale festivals and cultural events or niche knowhow conferences are not promoted for international purposes. Cultural routes program can be better promoted. The European Region of Gastronomy for 2019, European Capital of Culture 2021, and projects under the European year of heritage patronage, can be better utilized for promotion purposes and attracting more domestic and

international visitors.

Tourism Information Centers can be rebranded to provide better services for the tourists. Currently, TICs serve more a traditional function, distributing available resources (in certain cases very scarce) and providing limited services. They can be significantly enhanced by introducing digital technologies (virtual maps and tours, for example), calendars of events, reservation services for nearby attractions, better links with each other to provide comprehensive coverage of the country and many more. The MoT needs to develop a minimum criteria for TIC operations. And each destination and port of entry whether via road or air, should have at least one TIC.

Discussion

Over the decades, tourism has experienced continued growth. It has become one of the fastest growing economic sectors in the world. Modern tourism is closely linked to development and encompasses a growing number of new destinations. These dynamics have turned tourism into a key driver for socio-economic progress, due to its ability and potential to create new jobs, in particular for youth.

Romania's economy faces a number of challenges, including youth unemployment and rural-urban economic disparities. Unemployment remains high for the young in Romania. Of Romania's 42 counties, 18 are considered lagging behind other regions, with a GDP per capita lower than 75 percent of the national average. Disparities in living standards between urban and rural areas are especially striking: the urban-rural income gap is the second-highest in the EU, with mean urban income almost 50 percent higher than the mean rural income¹.

The tourism sector has a lot of potential to contribute to addressing some of these challenges. Around the world, tourism has proven to be transformational through the creation of jobs and economic opportunities, including for vulnerable groups. Tourism is estimated to contribute to over 10 percent of global GDP and account for 1 in 11 jobs on the planet. Youth employment is significant in the industry. Half of the global tourism workforce is under 25. The tourism industry is labor-intensive and allows for quick entry into the workforce for young people and women. If developed and managed well, these benefits could bring more jobs to rural areas and create jobs for youth.

Romania's tourism faces two key challenges: First, there is not enough tourism spending captured from

existing tourists and, second, there are not enough high-spending tourists attracted to the country. In 2017 Romania held the lowest total of annual international tourism receipts out of the neighboring countries (e.g. EUR 1,314 million in Romania versus EUR 3,579 mln in Bulgaria).

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