

ORGANISATIONAL INNOVATIONS IN HEALTH RESORT-BASED TOURISM

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Abstract. The main goal of the paper is to enhance knowledge in the scope of fundamental research, in the fields of economics and management sciences, by creating the theoretical model of organisational innovation process at the health resort-based tourism. In addition to the theoretical model the authors present examples of the most important organizational innovations used in the surveyed objects. The authors used the mapping method, the Delphi method and the standardised interview method. The direct result of the research involves the model of the health resort-based tourism organizational innovativeness. The project, as it has already been written above, has the innovative nature. So far organizational innovations taking place in the health resort-based tourism were not described and no model of the innovativeness process. The expected results will have an effect on the development of economic sciences, especially management sciences. The results will also contribute to social development through the possibility of using the research results by practicians – organizers of health resort-based tourism.

Keywords: innovations, organisational innovations, tourism, health resort-based tourism, "logical tree".

JEL Classification: O31, I15.

Introduction

Health tourism develops dynamically and there are more and more publications on this subject matter. They are mainly descriptive and reporting in character.

The main goal of the paper is to enhance knowledge in the scope of fundamental research, in the fields of economics and management sciences, by creating a theoretical model of the organisational innovation process in health resort-based tourism. In addition to the theoretical model, the authors present examples of the most important organisational innovations used in the surveyed entities. The research problem considered in this article is the organisational innovativeness of health resort-based tourism.

The authors used the mapping method in the theoretical part. The empirical part of the article presents the results obtained using the Delphi method. The Delphi questionnaire was a research tool used in the study. In addition, the article presents a case study of the health resort Wieniec in the form of a standardised interview. This article attempts to fill the gaps of scientific research, since to date the organisational innovations occurring in health resort-based tourism have not been examined and there is no model of this innovativeness. There are clear gaps in the research on the innovativeness of health tourism. The paper fills this gap in both theory and practice.

The direct result of the research involves the model of organisational innovativeness in health resort-based tourism. The project, as already said above, has an innovative nature. So far organisational innovations taking place in health resort-based tourism have not been described and there is no model of the innovativeness process. The expected results will have an effect on the development of economic sciences, in particular, in management sciences.

The continuous increase in the duration of human life and the growing leisure budget of some customers' groups enhance the demand for market services designed to improve or preserve health. The results will also contribute to social development by enabling practitioners – the

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organisers of health resort-based tourism – to use the research results.

1. Research on organisational innovations

The concept of "innovation" is primarily associated with such terms as "change", "improvement" or "reform" (Polska Agencja Rozwoju Przedsiębiorczości 2005: 65-66). The term "innovation" comes from Latin and means the introduction of something new, a novelty, a reform - based on innovatio, which means "renewal", or innovare, which means "to renew" (Kopaliński 1978: 433). Joseph Schumpeter is considered to have been the "father" of innovation theory (Schumpeter 1960: 45). His concept provided the basis for the interpretation applied by the OECD, according to which innovation involves the transformation of an idea into a saleable product or service, a new or improved production or distribution process, or a new method of social service (European Commission 1995: 4, 2010). The above definition is general enough to cover as well innovations in the scope of organisational changes introduced in tourism enterprises.

Although much has been written about innovations, scientists find it difficult to study innovations in services. Contemporary economic studies, including primarily the Oslo Manuals (OECD 2005a) indicate that innovation can be found not only in manufacturing enterprises but also in services. However, there have been few studies on innovation in services (OECD 2005b, Ejdys et al. 2015). An important contribution in the scope of innovative converged service and its adoption was made by Motohashi et al. (2012). In accordance with the OECD (2005b) nomenclature, innovation can be related to a product, process, organisation or marketing.

In the light of the Act on Certain Forms of Support for Innovative Activities (Ustawa z dnia 29 lipca 2005), organisational innovation consists in the development and promotion of new ideas and solutions facilitating quick and flexible response to market signals and challenges; it is also a factor which improves the internal functioning of the organisation and its cooperation with entities in the external environment.

Organisational innovation inseparably relates to management. Management means a specific manner of directing the activities of persons employed in economic entities, including the creation, control and continuous adjustment of procedural rules (standards, plans, institutions etc.) in a given enterprise (a plant, branch, affiliated unit) to meet the current needs (Encyklopedia 1998: 988). Organisational innovation encompasses such changes as (OECD 2005b):

- the implementation of advanced management techniques,
- the introduction of significantly changed organisational structures,

 the implementation of new or significantly changed action strategies of the organisation.

2. Nature and growth rate of health resort-based tourism

Tourism is now one of the most important areas and one of the fastest developing sectors of the world economy (Kurek 2003: 105), while health resort-based tourism has a higher growth rate than the other forms of tourism.

Health resort-based tourism is part of health tourism, as one of its segments, in addition to spa and wellness, medical tourism and the tourism related to aesthetic medicine. Health tourism is defined as a type of tourism the main goal of which is to improve or preserve health (Boruszczak 2010).

The most important document regulating health resortbased tourism in Poland is the Act on Health Resort-Based Medical Treatment, Health Resorts, Areas under Health Resort-Specific Protection and Health Resort Municipalities (Ustawa z dnia 28 lipca 2005). This Act defines "health resort" as "an area in which health resort-based medical treatment is carried out and which has been delineated for the purpose of using and protecting the natural curative raw materials existing within it". Pursuant to the Act, "health resort-based medical treatment" is an organised activity consisting in the provision of health-care services in the scope of health resort-based medical treatment or health resort-based rehabilitation, carried out in a health resort or outside of a health resort in hospitals and sanatoriums situated in fitted-out underground mining excavations, using such natural conditions as:

- the properties of natural curative raw materials,
- the curative properties of the climate, including thalassotherapy and subterraneotherapy, and the curative properties of the microclimate,
- the application of supportive physiotherapy procedures.

Health resort-based medical treatment units are entities which provide health tourism services in the areas of health resorts. Statistical data on the use of accommodation sites in health resort-based tourism in Poland can be obtained from the report drawn by the Central Statistical Office (2011). The research covered the period from 2000 to 2010. According to the data in the Report (p. 73), in 2010 there were 158 health resort-based medical treatment units which offered 31,815 accommodation places. The tourism facilities in the areas of health resorts were better developed than the average in Poland and on average in the individual Provinces. In 2010 (as of 31 July), the number of collective tourist accommodation sites per 100 residents on average throughout the country was 2, whereas in health resort municipalities it was 12, i.e. as much as 6 times more.

The number of accommodation users in relation of the population size in 2010 in Poland was 54 per 100 residents.

The analogous indicator for health resort municipalities was 279, i.e. 5 times more. In most Provinces, the growth of accommodation users in health resort municipalities was higher than the average in the Province (p. 82). The average duration of the stay of accommodation users in collective tourist accommodation sites in health resort municipalities in the individual Provinces was almost twice as long as the average duration calculated for the Provinces where these municipalities are located; in 2010, it was 2.7 for Poland and 5.9 for health resort municipalities (p. 83). The data of the Central Statistical Office (GUS) show a continuous growth of the number of tourists using the offers of health resorts (by about 4% on average in the period from 2000 to 2014).

On the basis of the data presented here, it can be concluded that health resort-based tourism is characterised by the continuously growing tourists' interest. On the basis of these conclusions, it can be inferred that the phenomenon of health resort-based tourism should be investigated in detail by economists.

3. Organisational innovations in the tourism sector

A review of the world literature (Elsvier, EBSCO and the library resources of the Bialystok University of Technology available on its server in October 2015) demonstrated that no scientific publication had appeared on innovations in health resort-based tourism. For this reason, the authors have to refer to studies on the issues of innovations in the tourism sector, with particular consideration given to organisational innovations.

In order to keep up with the changes unfolding on the global market, providers of tourism services are forced to adjust to the requirements of the modern market, introducing innovations of different types related to many aspects of their activities – the organisational, technological and product-related ones, as well as, according to certain authors, in the scope of new forms of sales or new packaging (Fort et al. 2004: 102).

In the case of innovations on the tourism market, before new tourism offers are introduced, it is quite important to modernise the tourism base and marketing methods designed to win new customers using new computer-assisted techniques (Briggs 2001). In recent years, the economic activity and its internationalised dimension were strongly affected by such production factors as information and knowledge. This resulted from strong progress in the field of Information and Communications Technology which enabled fast processing of data and information into information and knowledge, and, as a result, the development of intellectual capital and the stimulation of innovation and entrepreneurship (Zorska 2007: 54).

While the products offered by individual tour operators can be very similar and they may apply almost the same IT techniques, when faced with growing competition they can mainly reduce their costs by introducing optimum organisational solutions.

E. Szymańska (2009, 2013) carried out research on organisational innovation in the tourism sector and its results were presented in several publications. In the research done in 2008, 29% of the 215 tourism enterprises investigated stated that they had introduced organisational innovations (Szymańska 2009: 298). The greatest initiative in this respect was demonstrated by passenger transport enterprises, since 35% of the investigated ones had introduced such changes. Travel agencies came second (30%) in the introduction of innovations in question. Hotel sites informed about slightly fewer organisational innovations (28%). Here, the group of organisational innovations includes both new ways of sales and management, and novel marketing methods.

Successive studies were concerned with the organisational innovativeness of travel agencies (Szymańska 2011a, 2011b). Their purpose was to determine the innovativeness level of travel agencies in the scope of the introduction of organisational changes and to identify the main factors which affected them. The research on the organisational innovativeness of travel agencies was done on a group of randomly selected 79 tour operators and tourism providers operating on the Polish market. The research hypothesis providing that the innovativeness of travel agencies in the area of organisational change depended on the size of the agency and the extent of its international cooperation was validated in the studies performed. However, the research showed that the innovations in question were implemented more frequently in larger enterprises (employing 10 or more persons) than in microenterprises. It was demonstrated that the travel agencies which were innovative in the scope of the introduction of organisational changes were more frequently engaged in international cooperation and that the difference amounted to 9 percentage points.

Organisational innovations can provide one of the most significant advantages on the global tourism market; therefore, it is important to explore this issue in relation to the dynamically developing health resort-based tourism.

4. Characteristics of the research methodology

Research on innovativeness can be carried out using different methods. The Oslo Manual (OECD 2005a: 102) suggests questionnaire surveys and interview methods. The qualitative indicators of innovation recommended by the Oslo Manual are based on qualitative data on innovation collected by asking questions about the types of action taken in order to innovate. On the basis of these recommendations, the research applied the mapping method, the expert Delphi method and the standardised interview method for one case study.

Leonardo da Vinci is considered to have been the author of mapping, i.e. logical sequences for designing questions (Gelb 2002). He often used the so-called "mapping", i.e. the construction of "a logical tree", mapping loose associations on a given subject, out of which he would pick out the main problem, most often on the basis of repeated associations. The method of the construction of logical sequences was expanded and the value stream mapping method was created on its basis (Cf. Lean Management 2014). The purpose of the value stream mapping is also to combine all the measures taken and the processes implemented in an enterprise in such a way as to illustrate and understand how the value stream flows through the enterprise. The technique consists in a graphic description of the value flow in the organisational process in the enterprise. It can be very useful for the analysis of possibilities of introducing innovations and organisations can use it when they seek new, innovative organisational solutions.

Another method applied in the research was the expert Delphi method. Delphi is a qualitative method combining experts' knowledge and opinions to reach a conscious consensus on a complex problem, which is understood to mean a structured process of group communication designed to ensure the effectiveness of actions taken by a community of independent persons who are all committed to solving a complex problem (Linstone and Turoff 2002). In the literature, many varieties of the Delphi method can be distinguished (Rogut and Piasecki 2008). In the later research, the classic method was applied.

An expert panel is a working party established to provide an opinion on a given subject or to solve a research problem. The experts are independent specialists in a given field. The work was carried out by the group method - in the form of a Delphi survey. The panel consisted of 12 experts who offered knowledge in the scope of: the management of a tourism enterprise (entrepreneurs and scientific researchers in the field of tourism economics), geriatry, sustainable development, the international economy and nongovernmental organisations dealing with health tourism. The survey made it possible to verify and correct the survey questionnaire prepared using the CAWI method. In the survey proper, the respondents filled a questionnaire where they presented forecasts concerning a problem or situation in the field of innovation in health tourism, including health resort-based tourism. In the subsequent round, the respondents filled the questionnaire and, moreover, they were provided with the summary results of the first round of the survey. The responses were analysed in qualitative and quantitative terms. Information which was sent to the experts in the subsequent round could be redefined and narrowed to attain consistency (Bowles 1999). Under the impact of the opinion of the respondents as a whole an expert could change or maintain his/her opinion on a given subject.

Interviews constitute mutual, direct communication between the persons subjected to the measurement (respondents) and the interviewers (researchers). In this case, the individual and direct standardised interview was applied, where the researcher (one of the authors of the present publication) directly asked the respondent questions, recording on an ongoing basis his/her answers. The measurement instrument, i.e. the survey questionnaire, contained three survey questions which gave direction to the respondent's statements.

The first driver encouraging an enterprise to seek an organisational innovation is a problem or an unexpected success of the enterprises. Organisational changes seem to be necessary in the latter case when the quantitative growth soars. This makes it necessary to take decisions which affect the further development of the company; therefore, it is important for them to be correct already at the stage where the changes are designed. For this reason, it seems well-advised to analyse the existing organisational system by investigating this system, both inside the enterprise and in its business environment. In investigating the business environment of the enterprise, consideration can be given to commissioning this investigation to a specialised institution or to outsourcing selected services. The customers' opinion should be the key research area.

As the system is changed inside the enterprise the opinions of its employees and the members of its management board need to be carefully analysed and it must be considered together what is done incorrectly, what is done correctly and what should be changed. In this case, they can affect the organisation of the work place or business practices. Changes in business practices in service enterprises can include:

- the establishment of a new database on best practices and other knowledge to ensure that they are more available to all the employees of the enterprise,
- the introduction of an integrated system to control the operations of the enterprise in the scope of customer service, finance, strategy and marketing,
- the introduction of management systems for basic services, e.g. the supply chain management, the quality management system,
- the introduction of training programmes to establish an effective and functional team which will integrate the employees of different departments and activity areas.

In the scope of the organisation of the work place, the changes may entail:

- decentralisation of the management structure of the enterprise by delegating more control and responsibility to its employees,
- establishing formal or informal working teams to improve access to and sharing of knowledge among

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Organisations in the regional innovation system of the tourism Higher education establishments 16.67% 16.67% 25.00% 41.67% 0.00% Research institutes 33.33% 0.00% 8.33% 33.33% 16.67% 8.33% Consulting companies 33.33% 8.33% 41.67% 16.67% 0.00% 0.00% Provincial self-government authorities 25.00% 0.00% 25.00% 33.33% 16.67% 0.00% Local and regional tourism organisations 16.67% 41.67% 25.00% 8.33% 8.33% 0.00% Nature associations 58.33% 33.33% 0.00% 8.33% 0.00% 0.00% Tourism clusters 16.67% 8.33% 33.33% 0.00% 8.33% 0.00% Efficient control systems 16.67% 8.33% 33.33% 25.00% 8.33% 25.00% 0.00% Efficient control systems 0.00% 16.67% 8.33% 33.33% 25.00% 0.00% Efficient control systems 0.00% 16.67% <td>Government administration</td> <td>16.67%</td> <td>25.00%</td> <td>33.33%</td> <td>16.67%</td> <td>8.33%</td> <td>0.00%</td>	Government administration	16.67%	25.00%	33.33%	16.67%	8.33%	0.00%
Higher education establishments16.67%16.67%25.00%41.67%0.00%8.33%Research institutes33.33%0.00%8.33%33.33%16.67%8.33%Consulting companies30.33%8.33%33.33%13.33%0.00%0.00%Provincial self-government authorities25.00%0.00%25.00%33.33%0.00%0.00%Local and regional tourism organisations16.67%41.67%25.00%8.33%8.33%0.00%Cultural associations58.33%33.33%0.00%8.33%0.00%0.00%Nature associations33.33%33.33%3.33%0.00%0.00%0.00%Tourism clusters16.67%8.33%3.33%0.00%0.00%0.00%Financial institutions16.67%8.33%3.33%3.33%0.00%0.00%Efficient cortrol systems0.00%16.67%8.33%3.33%25.00%0.03%Efficient cortrol systems0.00%16.67%8.33%3.33%25.00%0.00%Iogen proving kills0.00%16.67%8.33%16.67%8.33%25.00%0.00%Cooperation of medical personnel0.00%16.67%8.33%16.67%8.33%25.00%16.67%8.33%Opennes to international cooperation0.00%16.67%8.33%16.67%8.33%25.00%16.67%8.33%Opennes to international cooperation inthe regional introver torter torter torter torter torter16.67%8.33% <td< td=""><td>Insurance companies</td><td>0.00%</td><td>25.00%</td><td>33.33%</td><td>33.33%</td><td>0.00%</td><td>8.33%</td></td<>	Insurance companies	0.00%	25.00%	33.33%	33.33%	0.00%	8.33%
Research institutes 33.33% 0.00% 8.33% 33.33% 16.67% 8.33% Consulting companies 33.33% 8.33% 41.67% 16.67% 0.00% Provincial self-government authorities 0.00% 33.33% 33.33% 33.33% 10.00% 0.00% Municipal self-government authorities 25.00% 0.00% 8.33% 8.33% 0.00% 0.00% Coland regional tourism organisations 16.67% 41.67% 25.00% 8.33% 8.33% 0.00% Cultural associations 58.33% 33.33% 0.33% 0.00% 0.00% 0.00% Entrepreneurs' associations 33.33% 25.00% 8.33% 33.33% 0.00% 0.00% Financial institutions in the sectoral innovers' resture 16.67% 8.33% 33.33% 25.00% 0.00% 0.00% Efficient control system 0.00% 16.67% 8.33% 33.33% 25.00% 0.00% Good reputation of medical personnel 0.00% 8.33% 16.67% 8.33% 16.67%	Organisations in the regional inno	ovation sys	tem of the	tourism		•	
Consulting companies 33.33% 8.33% 41.67% 16.67% 0.00% Provincial self-government authorities 0.00% 33.33% 33.33% 0.00% 0.00% Municipal self-government authorities 25.00% 0.00% 25.00% 8.33% 16.67% 0.00% Local and regional tourism organisations 16.67% 41.67% 25.00% 8.33% 0.00% Cultural associations 33.33% 33.33% 33.33% 0.00% 8.00% 0.00% Entrepreneurs' associations 33.33% 33.33% 33.33% 0.00% 0.00% Tourism clusters 16.67% 8.33% 33.33% 0.33% 0.00% Financial institutions in the sectoral innov===================================	Higher education establishments	16.67%	16.67%	25.00%	41.67%	0.00%	0.00%
Provincial self-government authorities0.00%33.33%33.33%33.33%0.00%0.00%Municipal self-government authorities25.00%0.00%25.00%33.33%16.67%0.00%Local and regional tourism organisations16.67%41.67%25.00%8.33%8.33%0.00%Cultural associations33.33%33.33%0.00%0.00%8.33%0.00%0.00%0.00%Nature associations33.33%25.00%8.33%33.33%0.00%0.00%0.00%Tourism clusters16.67%8.33%33.33%33.33%0.00%0.00%Financial institutions16.67%25.00%0.00%50.00%8.33%0.00%Efficient control system25.00%16.67%8.33%33.33%25.00%0.00%Legal regulations protecting consumers8.33%16.67%8.33%41.67%25.00%0.00%Good reputation of medical personnel0.00%8.33%16.67%8.33%25.00%0.00%Ulture of improving skills0.00%16.67%16.67%8.33%25.00%0.00%Cooperation between public and private sectors0.00%16.67%8.33%41.67%3.33%25.00%Openness to international cooperation0.00%16.67%8.33%41.67%3.33%25.00%Coulture of improving skills0.00%16.67%8.33%50.00%25.00%16.67%8.33%Openness to tourists0.00%16.67%8.33%50.	Research institutes	33.33%	0.00%	8.33%	33.33%	16.67%	8.33%
Municipal self-government authorities 25.00% 0.00% 25.00% 33.33% 16.67% 0.00% Local and regional tourism organisations 16.67% 41.67% 25.00% 8.33% 8.33% 0.00% Cultural associations 58.33% 33.33% 0.00% 0.00% 8.33% 0.00% Nature associations 33.33% 33.33% 0.00% 0.00% 0.00% Entrepreneurs' associations 33.33% 25.00% 8.33% 33.33% 0.00% 0.00% Tourism clusters 16.67% 8.33% 33.33% 33.33% 0.00% 8.33% 0.00% Financial institutions 16.67% 8.33% 33.33% 33.33% 8.33% 0.00% Certification systems 0.00% 16.67% 8.33% 33.33% 25.00% 0.00% Legal regulations protecting consumers 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 25.00% 0.00% Good reputation of medical personnel 0.00% 16.67% 8.33%	Consulting companies	33.33%	8.33%	41.67%	16.67%	0.00%	0.00%
Local and regional tourism organisations 16.67% 41.67% 25.00% 8.33% 8.33% 0.00% Cultural associations 58.33% 33.33% 0.00% 0.00% 8.33% 0.00% Nature associations 33.33% 33.33% 33.33% 0.00% 0.00% 0.00% Entrepreneurs' associations 33.33% 25.00% 8.33% 33.33% 0.00% 0.00% Tourism clusters 16.67% 8.33% 33.33% 33.33% 8.33% 0.00% Financial institutions 16.67% 8.33% 33.33% 25.00% 8.33% 25.00% 8.33% 25.00% 8.33% 25.00% 8.33% 0.00% 0.00% 16.67% 8.33% 25.00% 33.33% 25.00% 0.00% 16.67% 8.33% 25.00% 0.00% 16.67% 8.33% 16.67% 8.33% 25.00% 0.00% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 25.00% 0.00% 25.00% 16.67% 8.33% 25.00% 0.00%<	Provincial self-government authorities	0.00%	33.33%	33.33%	33.33%	0.00%	0.00%
Cultural associations 58.33% 3.3.33% 0.00% 8.33% 0.00% Nature associations 33.33% 33.33% 33.33% 0.00% 0.00% Entrepreneurs' associations 33.33% 25.00% 8.33% 33.33% 0.00% 0.00% Tourism clusters 16.67% 8.33% 33.33% 33.33% 8.33% 0.00% Financial institutions 16.67% 25.00% 0.00% 8.33% 0.00% Certification systems 0.00% 16.67% 8.33% 33.33% 25.00% 0.00% Legal regulations protecting consumers 8.33% 16.67% 8.33% 25.00% 0.00% Good reputation of medical personnel 0.00% 8.33% 16.67% 8.33% 16.67% 8.33% 25.00% 0.00% Culture of improving skills 0.00% 8.33% 16.67% 8.33% 16.67% 8.33% 25.00% 0.00% Cooperation between public and private sectors 0.00% 16.67% 16.67% 8.33% 16.67% 8.33%	Municipal self-government authorities	25.00%	0.00%	25.00%	33.33%	16.67%	0.00%
Nature associations 33.33% 33.33% 33.33% 33.33% 0.00% 0.00% Entrepreneurs' associations 33.33% 25.00% 8.33% 33.33% 0.00% 0.00% Tourism clusters 16.67% 8.33% 33.33% 33.33% 8.33% 0.00% Financial institutions 16.67% 25.00% 0.00% 8.33% 0.00% Efficient control systems 0.00% 16.67% 16.67% 8.33% 33.33% 25.00% 0.00% Legal regulations protecting consumers 8.33% 16.67% 8.33% 16.67% 8.33% 25.00% 0.00% Good reputation of medical personnel 0.00% 8.33% 16.67% 8.33% 16.67% 8.33% 25.00% 0.00% Willingness to cooperate 0.00% 16.67% 16.67% 8.33% 16.67% 8.33% 25.00% 0.00% Coutre of improving skills 0.00% 8.33% 41.67% 25.00% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33%	Local and regional tourism organisations	16.67%	41.67%	25.00%	8.33%	8.33%	0.00%
Entrepreneurs' associations 33.33% 25.00% 8.33% 33.33% 0.00% Tourism clusters 16.67% 8.33% 33.33% 33.33% 8.33% 0.00% Financial institutions 16.67% 25.00% 0.00% 50.00% 8.33% 0.00% Certification systems 0.00% 16.67% 16.67% 8.33% 33.33% 25.00% 0.00% Legal regulations protecting consumers 8.33% 16.67% 8.33% 41.67% 25.00% 0.00% Good reputation of medical personnel 0.00% 8.33% 16.67% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 25.00% 0.00% 16.67% 16.67% 8.33% 25.00% 0.00% 16.67% 16.67% 8.33% 25.00% 16.67%	Cultural associations	58.33%	33.33%	0.00%	0.00%	8.33%	0.00%
Tourism clusters 16.67% 8.33% 33.33% 33.33% 8.33% 0.00% Financial institutions 16.67% 25.00% 0.00% 50.00% 8.33% 0.00% Certification systems 0.00% 16.67% 16.67% 8.33% 25.00% 33.33% Efficient control system 25.00% 8.33% 16.67% 8.33% 25.00% 0.00% Good reputation sprotecting consumers 8.33% 16.67% 8.33% 41.67% 25.00% 0.00% Good reputation of medical personnel 0.00% 8.33% 16.67% 16.67% 33.33% 25.00% 0.00% Willingness to share information 0.00% 25.00% 41.67% 8.33% 16.67% 8.33% 16.67% 8.33% Openness to international cooperation 0.00% 16.67% 8.33% 16.67% 8.33% 25.00% 16.67% 8.33% Openness to tourists 0.00% 16.67% 8.33% 16.67% 8.33% 0.00% Local medical traditions the	Nature associations	33.33%	33.33%	33.33%	0.00%	0.00%	0.00%
Financial institutions 16.67% 25.00% 0.00% 8.33% 0.00% Institutions in the sectoral innovation system f health turism turism Certification systems 0.00% 16.67% 8.33% 25.00% 33.33% Efficient control system 25.00% 8.33% 8.33% 33.33% 25.00% 0.00% Legal regulations protecting consumers 8.33% 16.67% 8.33% 41.67% 25.00% 0.00% Good reputation of medical personnel 0.00% 8.33% 16.67% 8.33% 16.67% 8.33% 25.00% 0.00% Willingness to share information 0.00% 25.00% 41.67% 8.33% 16.67% 8.33% 16.67% 8.33% Willingness to cooperate 0.00% 16.67% 16.67% 8.33% 25.00% 0.00% Couperation between public and private sectors 0.00% 25.00% 16.67% 8.33% 25.00% 16.67% 8.33% Openness to tourists 0.00% 0.00% 16.67% 8.33% <t< td=""><td>Entrepreneurs' associations</td><td>33.33%</td><td>25.00%</td><td>8.33%</td><td>33.33%</td><td>0.00%</td><td>0.00%</td></t<>	Entrepreneurs' associations	33.33%	25.00%	8.33%	33.33%	0.00%	0.00%
Institutions in the sectoral innovation system of health tourism Certification systems 0.00% 16.67% 16.67% 8.33% 25.00% 33.33% Efficient control system 25.00% 8.33% 8.33% 33.33% 25.00% 0.00% Legal regulations protecting consumers 8.33% 16.67% 8.33% 16.67% 33.33% 25.00% Good reputation of medical personnel 0.00% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 16.67% 8.33% 25.00% 16.67% 8.33% 25.00% 16.67% 8.33% 25.00% 16.67% 8.33% 25.00% 16.67% 8.33% 25.00% 16.67% 8.33% 25.00% 16.67% 8.33% 25.00% 16.67% 8.33% 25.00% 16.67%	Tourism clusters	16.67%	8.33%	33.33%	33.33%	8.33%	0.00%
Certification systems 0.00% 16.67% 16.67% 8.33% 25.00% 33.33% Efficient control system 25.00% 8.33% 8.33% 8.33% 33.33% 25.00% 0.00% Legal regulations protecting consumers 8.33% 16.67% 8.33% 41.67% 25.00% 0.00% Good reputation of medical personnel 0.00% 8.33% 16.67% 16.67% 33.33% 25.00% Willingness to share information 0.00% 25.00% 41.67% 8.33% 16.67% 8.33% Willingness to cooperate 0.00% 16.67% 16.67% 50.00% 0.00% Culture of improving skills 0.00% 16.67% 8.33% 16.67% 8.33% Openness to international cooperation 0.00% 16.67% 8.33% 16.67% 8.33% Openness to international cooperation 0.00% 25.00% 25.00% 16.67% 8.33% Openness to tourists 0.00% 0.00% 16.67% 25.00% 16.67% 8.33% Openness to cooperate between different entities 8.33% 0.00% 8.33% 41.67% 25.00% 16.67% Willingness to cooperate between different entities 8.33% 8.33% 50.00% 25.00% 8.33% 0.00% Availability of information on local resources 0.00% 16.67% 8.33% 66.67% 8.33% Openness to external investors 0.00% 16.67% 16.67% 8.33% 66.67% 8.33% <td>Financial institutions</td> <td>16.67%</td> <td>25.00%</td> <td>0.00%</td> <td>50.00%</td> <td>8.33%</td> <td>0.00%</td>	Financial institutions	16.67%	25.00%	0.00%	50.00%	8.33%	0.00%
Efficient control system25.00%8.33%8.33%33.33%25.00%0.00%Legal regulations protecting consumers8.33%16.67%8.33%41.67%25.00%0.00%Good reputation of medical personnel0.00%8.33%16.67%16.67%33.33%25.00%Willingness to share information0.00%25.00%41.67%8.33%16.67%8.33%Willingness to cooperate0.00%16.67%16.67%50.00%0.00%Culture of improving skills0.00%8.33%41.67%25.00%16.67%8.33%Openness to international cooperation0.00%16.67%8.33%16.67%8.33%25.00%Cooperation between public and private sectors0.00%25.00%25.00%16.67%8.33%25.00%Depenness to tourists0.00%0.00%16.67%25.00%16.67%8.33%16.67%Local medical traditions8.33%0.00%8.33%41.67%25.00%16.67%Willingness to cooperate between different entities8.33%8.33%50.00%25.00%8.33%Openness to external investors0.00%16.67%16.67%33.33%25.00%8.33%Openness to external investors0.00%16.67%16.67%8.33%8.33%25.00%8.33%Openness to external investors0.00%16.67%16.67%33.33%25.00%8.33%Openness to external investors0.00%16.67%16.67%8.33%8.33% <td>Institutions in the sectoral innova</td> <td>tion systen</td> <td>n of health</td> <td>tourism</td> <td></td> <td></td> <td></td>	Institutions in the sectoral innova	tion systen	n of health	tourism			
Legal regulations protecting consumers8.33%16.67%8.33%41.67%25.00%0.00%Good reputation of medical personnel0.00%8.33%16.67%16.67%33.33%25.00%Willingness to share information0.00%25.00%41.67%8.33%16.67%8.33%Willingness to cooperate0.00%16.67%16.67%50.00%0.00%Culture of improving skills0.00%8.33%41.67%25.00%16.67%8.33%Openness to international cooperation0.00%16.67%8.33%16.67%33.33%25.00%Cooperation between public and private sectors0.00%25.00%25.00%16.67%8.33%Openness to tourists0.00%0.00%16.67%25.00%16.67%8.33%Local medical traditions8.33%0.00%8.33%41.67%25.00%16.67%Willingness to cooperate between different entities8.33%8.33%50.00%25.00%16.67%Willingness to cooperate between different entities8.33%8.33%50.00%25.00%8.33%Openness to external investors0.00%16.67%16.67%33.33%25.00%8.33%Openness to external investors0.00%16.67%16.67%8.33%8.33%66.67%8.33%Openness to external investors0.00%16.67%16.67%16.67%8.33%8.33%66.67%8.33%Openness to external investors0.00%16.67%16.67%16.67%<	Certification systems	0.00%	16.67%	16.67%	8.33%	25.00%	33.33%
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Cooperation between public and private sectors $ 8.33\% 25.00\% 8.33\% 33.33\% 16.67\% 8.33\%$	Cooperation between public and private sectors	8.33%	25.00%	8.33%	33.33%	16.67%	8.33%

Table 1. Assessment of the importance of organisations and institutions for the innovativeness of health resort-based tourism (source: own elaboration based on the Delphi survey)

the employees from different departments, such as marketing, kitchen staff, waiters, floor service and receptionists.

External relations can also be subjected to deliberate organisational changes; in particular, those related to:

- the introduction of quality control standards for service providers,
- the outsourcing of surveys,
- the cooperation with business environment institutions, such as scientific research centres, sectoral organisations, consulting companies or other nongovernmental organisations supporting the development of entrepreneurship.

5. A map of the innovation process in the scope of organisational changes in health resort-based tourism

The map can start to be built after information has been collected on the possibilities and directions of organisational innovations and the most important factors affecting the innovation processes. For this purpose, first the results of the Delphi survey were used.

In building the "logical tree", i.e. the thought map leading to an organisational innovation, the organisations and institutions present in both the sectoral and regional innovation systems of tourism should be taken into account. The survey covered the business environment of service providers and their suppliers. The experts assessed them on a six-point scale of importance from 0 to 5, where 0 meant no impact on the innovativeness of health resort-based tourism, while the score of 5 indicated a very large impact. The distribution of answers after the second round of the Delphi survey is shown below (Table 1).

In the Table 1 the most common indications of Experts are selected in grey colour. In building the "logical tree" were considered into account the most important innovation drivers. The most important organisations and institutions (with the largest number of scores of 5) which might affect the organisational innovativeness of health resortbased tourism were taken into account and distinguished with a thick-lined box. The *important* and *quite important* entities (with the largest number of scores of 3 or 4) were distinguished with a regular-lined box. The least important entities (with the scores of 1 and 2) and the entities which the majority of the experts regarded as insignificant for the process investigated are not shown in the Figure 1.

The "logical tree" shown above was built on the basis of theoretical assumptions and the experts' opinions. Just as in each innovation process, the starting point is a success or a problem at an organisation providing services in the range of health resort-based tourism. The next step entails the identification of innovation drivers which are most conducive to organisational changes inside the organisation and in its external environment. External innovation drivers are divided into four groups: organizations in the sectoral and regional systems and institutions at the sectoral and regional systems.

Few factors of key importance were indicated with a thick frame – just two. The most numerous factors were those of a slightly lower rank (scores of 3 and 4), marked with a standard lined box. There was a lower number of those that still affected the innovation processes in the surveyed organisations, but had a slight effect (most scores of 1 and 2), on not effect (score of 0) they are not showed at the picture.

It is assumed theoretically that the "logical tree" is to be used to seek and diagnose organisational innovations. It is adapted to innovations implemented by entities which provide health resort-based tourism services. However, given that there can be many organisational changes and that they can be effected both in the organisation itself and its business environment, the proposed thought model can evolve further. It can also be used, after an appropriate transformation, by other entities which provide health tourism services.

6. Organisational innovations in health resort-based tourism – a case study

The investigative considerations are complemented with an interview carried out on 5 September 2015 with Jerzy Szymańczyk, the President of the Board of the National Association of the Union of Polish Health Resorts and at the same time the President of the Management Board of Uzdrowisko Wieniec (Wieniec Health Resort) Co. Ltd in Wieniec Zdrój (personal communication 5 September 2015).

Answering the question about the innovativeness of the health resort and the resources needed for this purpose, the President emphasised that today health resorts were more and more often specialised medical centres which combined health resort-based medical treatment, medical rehabilitation and other specialties. Health resorts are also health diagnosis, prevention and education centres, as well as, finally, professional sites functioning as destinations meeting the health, rest and recreation related needs of persons of different age and different psychophysical activity. Polish health resorts are also innovative enterprises which seek new solutions and new sales and which are interested in doing research and placing new, improved products and services on the market. Like no other field of medicine, health resort-based medicine combines traditional forms of medical treatment and the most recent achievements of medical sciences; hence, innovation is its immanent feature.

President Szymańczyk thus responded to the question about the challenges facing Polish health resorts: "Our



Legend:

Entities of key importance for organisational innovativeness (the largest number of indications as key, score of 5)

----- Entities of importance for organisational innovativeness (the largest number of indications as important and very important)

Fig. 1. Creation of organisational innovations in health resort-based tourism in the light of the Delphi survey in the form of a "logical tree" (source: own elaboration based on own research using the Delphi survey and Szymańska 2013: 182)

health resorts used well the time after Poland's accession to the European Union as regards the use of financial resources, the investment projects implemented at the health resorts themselves and in the infrastructure around the health resorts, the alignment to the EU standards in the area of the services which they provide, although there is much that still has to be done, e.g. in road and transport infrastructure. Today the quality of Polish facilities is not different from the best European standards. Polish health resorts do not have any reasons to suffer from an inferiority complex in respect of their western neighbours. It is enough to look at the investment projects carried out in recent years in such health resorts as e.g. Kołobrzeg, Świnoujście, Polanica, Kudowa, Nałęczów, Ustroń, Busko, Wysowa, Lądek, Świeradów, Cieplice, Rabka and Krynica. We are open to the world trends and we implement such an advanced program in the field of health tourism in Wieniec Zdrój, too".

Wieniec Zdrój, until recently a small, regional sanatorium, is beginning to win a special position among Polish health resorts. As Jerzy Szymańczak claimed, today it is the most modern, most innovative health resort. In 3 recent years, about PLN 140 million was spent here on investment projects, modernisation and innovations. At that time, it was the highest outlay in Poland. It brought about modern health resort-specific infrastructure, e.g. a sanatorium with 900 beds. Many solutions are innovative in nature, not only at the regional but also at the national scale, e.g. underground connections between all the sites of the health resort and the natural medicine centre. The mission of the health resort is to provide health and recreation services at the highest European level. At present, continuous personnel training courses are underway to improve the quality of the provided health and recreation services, sales operations and the command of foreign languages. New health resortspecific products are introduced, also using the natural raw materials from Wieniec Zdrój; specifically, medical mud, sulphide and mineral waters. The organisational culture of the company is improved to ensure better customer service. The health resort places its offers on foreign markets: in Germany, Scandinavia, Israel and Russia (Kaliningrad District). Following the completion of the successive investment projects now underway, in mid-2016 according to plans, Wieniec Zdrój will be the most modern health resort in Poland with its standard at the 4.5* level.

The interview ended at this point. Moreover, the respondent's large involvement and a friendly atmosphere should be emphasised.

7. Discussion

The present considerations concerning the organisational innovations in health resort-based tourism gave rise to many research questions. The most important of them relates to the attempt to diagnose the areas where they may occur. Given a shortage of scientific studies in this field, it would be well-advised to develop a methodology for research on, and diagnosis of, these innovations.

The presented surveys treated somewhat marginally the internal factors which can affect innovativeness to a substantial extent. It seems that these issues should be explored further when the research is continued and referred to economic realities. Similarly, the providers of health resortbased services should be directly investigated in respect of the organisational innovations implemented, using the division recommended by the OECD (2005): the implementation of advanced management techniques, the introduction of significantly changed organisational structures and the implementation of new or significantly changed action strategies of organisations.

In addition to the factors or entities which support or participate in the innovation process, the barriers and constraints which impede this process should be diagnosed.

It should be emphasised that the continuation of this research under the project envisaged in 2016 should contribute to giving answers to some of the questions posed here.

Conclusions and recommendations

In implementing the objective of the study, the authors developed a thought map in the form of a "logical tree". As a result of the construction of the "tree", based on the results of the expert survey carried out using the Delphi method, the following conclusions can be drawn:

- Many entities and institutions operate in the business environment of providers of health resort-based services and can affect their organisational innovativeness;
- Among these institutions, openness to tourists was considered to be most important;
- The experts gave similarly high scores to certification systems, mainly in the scope of efficient management systems.

Recommendations can be presented mainly as a result of the interview which was carried out with the President of Uzdrowisko Wieniec-Zdrój Co. Ltd. (Wieniec Health Resort). The most important recommendation is that the providers of health resort-based services should take action to ensure their most extensive cooperation. Another important recommendation provides for continued efforts to improve quality, as they bring benefits and translate into the profits of the enterprise. In the present case study, an interesting example of organisational innovation was the integration of different functions and systems into one "organism". A site operates as a hotel, a spa centre, an outpatient clinic which carries out procedures, a therapy centre (music therapy and aromatherapy), a water park or an area of leisure management (dancing parties, billiards etc.).

The nature of the research and its results do not exclude the possibility that analyses of this type can be repeated and, possibly, comparative analyses can be carried out in a dynamic system. The authors believe that the findings and conclusions presented in this study constitute one of many possible options and can provide the basis for further solutions.

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Contribution

E. Szymańska involvement in writing the paper equal 52% (conception and design of the work, analysis and interpretation of data, drafting the article), A. M. Rutkowski – 24% (revising the paper critically for important intellectual content, interview), E. Dziedzic – 24% (concept of Delphi research, acquisition of data).

Disclosure statement

Authors are declare they have not any competing financial, professional, or personal interests from other parties.

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