

APPLICATION OF DELPHI METHOD FOR MANAGEMENT DECISION MAKING IN HEALTH TOURISM¹

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Abstract: *The crisis, as a response of the COVID pandemic, reflects on the healthcare and tourism sectors and contributes to the implementation of adequate methods for making management decisions, as well as urgent innovative approaches to preserve the sustainability of organizations in these spheres of activity. As a response to the increased demands of health tourism users, tourism organizations have had to create mechanisms to adapt to dynamic processes. Using the crisis as an opportunity for development, adaptation and reintegration, the management decisions of these organizations focused on creating a complex product and reorientation in the services offered, including climatic, balneotherapy tourism and medical services of a convalescent nature. Management decisions to expand standard sea tourism with climate and balneotherapy resources and offer them in one complex tourist product (with opportunities to diversify through eco, bicycle, geocaching tourism, etc.) are rescue scenarios for saving the stability of the tourist enterprise. The purpose of the report is to present the possibility of applying the Delphi method as an expert method for making managerial decisions to neutralize the negative consequences of the crisis.*

Keywords: *Climatic, balneotherapy tourism, Covid - 19, crisis, delphi method*

INTRODUCTION

The process of adapting to international tourism standards, the post-epidemic crisis and the increased needs of clients/patients from an extended range of health-restorative and preventive services requires structured management decisions. The direction of development and neutralization of the negative consequences of COVID-19 is the construction of the Bulgarian tourist profile as a destination with favorable climatic and natural conditions, low prices for health services, high standard of hotels, sanatoriums, rehabilitation centers and qualified medical staff. The emergence of the new economic model is not a new phenomenon, but it is vital to implement it in the management of enterprises and especially in the tourism industry, which has been adversely affected by the effects of the pandemic crisis of COVID-19.[5] One of the priorities in the tourism policy of Bulgaria is the creation of permanent conditions for the continued development of health (medical) tourism in Bulgaria. This requires the establishment of cooperation between the Ministry of Tourism and the Bulgarian Medical Association for the development of complex tourist products and services. A study of the attitudes of travel agents and health professionals shows their absolute readiness for partnership, but with specification and identification of additional

¹ This publication is financed by project N 437/2022 "Climatic, balneotherapy tourism in the South-Eastern Black Sea as a management solution for changing the standard marine tourism product in crisis conditions".



measures to stimulate the potential of health tourism in Bulgaria. [3] For this purpose, adequate management decisions related to the optimization of initiatives in this area must be taken.

1. The potential of Bulgarian health tourism

Bulgarian health tourism is in a period of growth. Forced to function in an unstable and uncertain environment - economic, financial, social, it proved to be decisive for the economic sector that was heavily affected by the crisis. Consumer demand for a complex health-tourism product at an affordable price, modern material base, therapeutic procedures, modernized logistics and high-quality medical services is becoming more and more intense. Traditional spa therapeutic segments such as balneotherapy, rehabilitation and prevention have become closely associated with medical services. The extremely valuable natural resources of our country: climate, thermal springs, healing mud are fully utilized, combined with modern hotel facilities, modern rehabilitation equipment, spa equipment. It is a challenge for the Bulgarian resorts to respond adequately to the demands related to the prevention and treatment of the most common diseases, paid for by clinical paths by the European health funds. It is of particular importance for the prevention of people at health risk, with socially significant diseases, for those who have already suffered from COVID, for the prevention and treatment of post-covid complications. This requires medical standards to be fulfilled by health and rehabilitation centers for physical therapy and rehabilitation. [9]

In the case of cross-border healthcare, the regulations described in the relevant Ordinance on the conditions and procedures for exercising patients' rights apply. The terms and conditions for the certification of "balneotherapy (medical) center", "SPA center", "wellness center" and "thalassotherapy center" apply to Ordinance No. 99, which outlines the mandatory requirements for their activity. The standards are related to the certification of independent and adjacent accommodation facilities in resort and urban environment health centers, as well as the minimum mandatory requirements for construction, furnishings and equipment, service, services offered and professional and language qualifications of the staff, which they must meet respective centers to get certificate. [10]

It has been proven that the health sector in Bulgaria has experienced professionals - dentists, dental technicians, nurses, therapists, pharmacists, rehabilitators, and scientific workers. The post-crisis opportunity to build a system of medical-rehabilitation centers serving tourists from the country and abroad should be used, due to the conditions under which it will be implemented: qualified medical specialists, tourist experts, assistance from the local government, legislative framework, favorable natural resources, increased needs for recreational services, including climate therapy, competitive prices for tourist and medical services. [3]

The most effective management decision for the tourism sector in the last three years would be to support the development of climate-balneotherapy and the implementation of their healing-relaxation function, related to the use of the favorable impact of natural factors. According to expert research, in terms of bioclimatic conditions, the Southeastern Black Sea region has proven to have the strongest therapeutic effect and prevention for lung diseases, asthma and respiratory problems, and is suitable for climate therapy. The healing qualities of the climate, combined with the beaches and the sea, are the reason for the recognition in 1963 of Sinemorets as a climatic sea resort of local importance, and in 1972 Ahtopol was declared a climatic sea resort of national importance. In-depth studies of the climate in the region of

Malko Tarnovo have been carried out, which provide a basis for the continued development of the tradition of climate treatment of lung and allergic diseases. Specialists claim that the chemical composition of the air in the town of Malko Tarnovo resembles the composition of the air in the town of Sandanski. [11] Stamatov claims that the features of our Black Sea resorts are competitive with renowned tourist destinations in Europe and North Africa located at an equivalent latitude. He believes that due to its favorable climatic conditions - little precipitation and cloudiness, as well as a tolerable temperature during the day compared to the climate of the French and Italian Riviera, considerable sunshine, a pleasant temperature of the sea water for bathing, they even surpass them to a certain extent. The absence of cold winds on the Baltic coast, the North Sea and much of the Atlantic coast, where air and water temperatures are lower and cloudiness is greater, make the area attractive. [6]

2. Management decisions for the health orientation of the tourist business

The development of tourism and health-rehabilitation organizations is associated with the improvement of the way of making management decisions by generating new, creative ideas for economic and social capital. Based on many dimensions of the strategy in the field of tourism, conditions are created for transformation in the direction of new opportunities in the management of the tourism business. Crisis management is indeed a vital success factor in today's uncertain business environment and a useful tool to help organizations develop proactive business solutions for long-term strategies, as it enables them to combat profitability and survival challenges.[4] Health tourism organizations, through effective management solutions, can optimize their costs and product features, according to the customer profile. This unstable moment usually serves as a model from which to learn techniques for future more precise planning and control, innovative practices, new technologies, prevention and rehabilitation programs. In the sphere of complex activities carried out by experts from different sectors, such as health tourism, a number of multi-layered management situations appear, which also require complex solutions. Quantitative methods are often not sufficient to solve technical, legal, commercial, financial, etc. type of problems, due to their multidisciplinary. Therefore, the specialized knowledge of experts, of expert groups of qualified specialists in various fields and aspects of science, economics, public sectors, etc., is required to carry out in-depth creative deliberation, discussions and collective decision-making. They are characterized as frequently applied non-standard, non-traditional methods and approaches to the problem situation - **heuristic**. When there is insufficient information and professional experience to resolve a situation, heuristics use creative techniques to generate multiple ideas and find a favorable outcome. These ideas are formed based on competencies, intuitive analyses, standard or non-standard conclusions to reach original solutions.

Methods such as: "Brainstorming", "Delphi", "Ringi", the method of expert assessments, alternative scenarios, morphological analysis, etc. data is collected, an assessment is made and a group decision is made. Extremely suitable methods for application in the field of health tourism, due to the need for changes, diversification of the product, neutralization of the crisis through appropriate development ideas and mainly: achieving a synergistic effect in the teamwork of health and tourism specialists.

In the health and rehabilitation organization, it is necessary to observe the maximum use of the existing resources: natural, human, material base, know-how and information clarity about the price-performance ratio. When making decisions under



conditions of uncertainty one must look for the decision procedure, the options, and the consequences that can be determined by stochastic evaluations. [2]

Main priorities should be:

1. Strategic moves based on advanced data analyzes that are necessary for decision-making, eg analysis of sales trends for the new venture, pricing analysis, etc.

2. Focusing on those that have a double potential - for saving costs and for increasing sales (use of available material base off-season and attractive innovative offers enriching the product - geocaching tourism). Optimization of business processes is achieved on the basis of data and information and the making of creative management decisions.

3. Implementing the change by following the trends, the competition, convincing the staff about the positive sides of the innovation and comprehensively updating the tactical, operational and strategic management. A number of anti-crisis management decisions such as: laying off employees due to the reduced volume of work or freezing the activity would lead to problems in the long term. Efforts should be directed at forming the overall policy for offering health tourism services through synergy, cooperation and organizational relationships between health organizations and competent tourist institutions in the field of medical tourism in the Burgas region. Besides an effective partnership between tour operators, health facilities and the local government, an important aspect of the health-oriented tourism policy in the district is also the protection of the surrounding environment and resources for the benefit of society. Factors of influence are: the economic condition of the area, demographic and geographical features of the region, access and type of necessary information for high-tech services, qualifications of specialists in health tourism, etc. These are the key resources for increasing the competitiveness of the Burgas region not only as a sea tourism destination, but also as a developing region in the field of health tourism. Vodenicharov believes that when deciding large-scale changes in health care, there are two main principles: - Public debate – involving more and different groups; - Consensus – final decisions in healthcare require consensus. [8]

3. Delphi method

The Delphi method is a group prediction method where the group members are anonymous. The research team that leads the process sends the specialists controlled information, as a result of which the group's responses are processed statistically to reach a consensus. It was developed in the early 1960s in the USA. It includes a sequence of procedures aimed at forming a group opinion of experts from different fields by means of polling. The main goal is to reduce the psychological impact typical of personal contact. Feedback is maintained, the experts are periodically informed about the results of the survey. Each expert is chosen anonymously, from different fields of science, to give their opinion on the problem under consideration without communication with their colleagues. After the selection, a program for surveying them is drawn up with several successive stages. Questions can be modified after each subsequent stage to achieve accuracy and depth of results. The average score of the group is calculated and the opinions, the external assessment and the other experts on the subject are provided anonymously. The Delphi method is increasingly used in public health, primarily by experts, when available knowledge is incomplete or subject to uncertainty. The goal is to gather expert opinions and reach consensus. The opportunities for Delphi to be implemented for health tourism related to a management solution in health care and tourism are real and applicable. They can by

involving experts-participants from both sectors and their selection is done according to rules:

1. Precise definition of the aspects related to the health orientation of the idea and the need for partnership with other sectors - social-health, legislative, economic, legal, environmental, educational, cultural, sports, etc.

2. Building parameters for selecting the right experts from both fields, as well as specific names for easier selection.

3. Actual selection of healthcare and tourism specialists according to the specific situation (period of crisis) and the time frame (the need for quick management decisions to get out of the crisis). [7]

Application of the method requires all stakeholders to join. In this way, a wide range of expert opinions from different fields and mainly from health and social activities is provided. The concentration of an intellectual core that will give assessments from the perspective of different hierarchical levels of management is the basis for the effectiveness of the method. An example is the application of Delphi in health care as a method for creating a women's health prevention program in a five-medical specialty team collaboration at the University of Texas. In Spain, the technique was used to test the importance of "lifelong learning". The Delphi method defines education and training, which are crucial for economic and social change in Spain and Europe. In South Africa, a study on higher health education was implemented through Delphi. The researchers used the technique to assist in the formulation of recommendations regarding the education and training of general practitioners working in district hospitals, as well as the development of the qualifications of specialist doctors. The research group was guided by the presumption that the emerging specialty of family medicine in South Africa needed the development of a national consensus on skills that should be included in training programs.

Doraliyski [1] structured the participants in three panels:

1. Institutional – the participants are regional managers who implement policies at the local level;

- 2) Political - the participants are experts from the two sectors that shape the policies in the municipality;

- 3) Non-governmental organizations - the participants are members of organizations at the regional level, who are publicly and personally involved in the specific proposal for a solution (an example is the associations "Revival of climate treatment in Strandja": "Rafael Association - info, culture and tourism", Burgas regional tourist association, association "Green Strandja", etc.)

Questionnaire cards are two, building, completed by the specialists in the panels, in two rounds. In the first, usually, in a visual form, through graphs, tables and diagrams, the basic research on the problem to be solved by a managerial decision is presented. The initial information from the first survey consists of interpretations, definitions of concepts, opinions, attached materials with the results of research done, etc., e.g. for health tourism in the Southeast Black Sea coast and the Strandzha region. Here, experts can use the entire range of knowledge in their field to defend the thesis and argue their view of the possibilities of the proposal. The questions in the survey aim to clarify whether the experts would support such a project, whether this form of tourism will have a favorable effect on the health status of the population, especially after a COVID infection, whether the prevention of the population through specialized tourism (SPA, Wellness, climate treatment, balneotherapy, routing, geocaching, etc.) will contribute to increasing the quality of life of the society affected in recent years



by crises of a pandemic and military-political nature. In the first stage of the survey, the opinions of the experts who indicated in the questionnaire, on the specific scale, a specification of their views on the idea and its implementation and development are formed. [7]

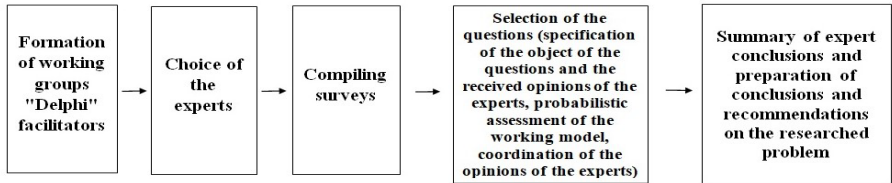


Fig. 1. Algorithm for implementing the Delphi method

In the second stage, the survey contains the summarized information from the first, and the opinions of the experts are compiled and opinions are again given on a corresponding scale. Terms and definitions are harmonized and returned to the participants with the prepared views on the topic. On a corresponding scale, they express an opinion on which are the factors of influence in a period of crisis, which of them will have a beneficial effect on the development of this form of health-oriented tourism, which are the priority steps for the implementation of a better quality health-tourism product in the region.

After the second round, opinions usually overlap and a final decision on the project is reached. As a finale, a final document is created with the selected, processed and overlapping opinions and the ranked proposals for steps towards a complex product, the work of specialists from both sectors – healthcare and tourism.

CONCLUSION

Innovative development in health tourism, as a strategically oriented element of management, should also include innovative technologies such as: telemedicine, electronic medical register, digital innovations, etc., which provide many new opportunities for the health-oriented tourism business. Positioning Bulgaria as a tourist destination with a quality health tourism product on the world tourism market is a priority of the state tourism policy. Apart from its aim to satisfy the human need for rest, physical recovery and stabilization of the general mental and physical condition in an outpatient setting, health tourism is an extremely strong economic factor. The trends for the multidisciplinary nature of the economic sectors allow the use of the resort-healing resource of our sea resorts to be reconsidered, through solutions for alternative tourism products corresponding to the crisis conditions. In this way, medical and recreational centers for prevention, as objects of health tourism, must apply upgrading, advanced practices, in response to the economic crisis, innovative management solutions for the provision of complex health and tourism services, corresponding to the conditions.

Bibliography:

1. Doraliyski, M. Takova. Creative problem solving. Modern management practices. UI "Economy", S; 2004

2. Hružová, H. Manažerské rozhodování. 3., update. vyd. Praha: Vysoká škola ekonomie a managementu, 2011. ISBN 978-80-86730-74-5.
3. Petkova, St., Zl. Karadjova, A. Yanakieva, Opportunities for the development of health tourism in the Burgas region, "Prof. Dr. Asen Zlatarov" Publishing House - Burgas, 2020, ISBN 978-619-7125-67-2
4. Ruseva, V., Marketing decisions during a pandemic or how entrepreneurs save business, International Scientific Conference "Modern Challenges to Tourism" organized by the Department of Tourism at Veliko Tarnovo University, 2022, pp. 781-791, ISBN 978-619- 239-710-4
5. Ruseva, V., The new models and standards for good governance - will the tourism industry survive in the era of sustainable capitalism and global pandemic, International Scientific Conference "Tourism and Global Crises" organized by the Department of Tourism at Veliko Tarnovo University, 2021, with .579-587, ISBN: 978-619-7281-73-6
6. Stamatov, St., Biothalasology, Science of the healthy potential of the sea and its coastal resort resources and health tourism, Steno Publishing House, Varna, 2013, ISBN 978-954-449-704-0, pp. 46, 308
7. Vankova, D., The Delphi method, essence and research experience, Journal of Social Medicine, no. 4, 2014
8. Vodenicharov, Ts., The Ten Principles of the Medic and the Manager, ed. SIMELPRESS, Sofia, 2010, ISBN 978-954-9487-86-2
9. <https://medika.bg/?Healthy-tourism-in-Bulgaria&!medical-article>
10. https://www.tourism.government.bg/sites/tourism.government.bg/files/uploads/strategy-policy/strategy_2014-2030_13_05_2014-sled_ms_26_05_2014.pdf
11. Climate treatment in Strandzha: Bulgaria as a destination for medical tourism - Society - Bulgaria - Social network – NOVA