

Case Report

On the Futurology of Health Tourism (Case Study: Tabriz Metropolis)

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ABSTRACT

Futurology is a thoughtful effort and intelligently systematic study of the future based on written principles, methods, and techniques operationalized by futurologists, helping planners to make smart choices. Awareness of governing relations and principles of futurology is a kind of scientific prediction which enables individuals to surround challenges that lie ahead in various fields including futurology of health tourism with scientific methods, to take actions to surmount obstacles, to turn threats into opportunities, and to develop the future strategies. The information dominance over the future direction of health tourism and future technological changes in the medical field and the type of accommodation and traveling can be grounds for becoming a health tourism center in line with the resistance economy and cause escaping from the reliance on the single-product economy of petroleum.

The present study is an attempt to reckon internal and external environment challenges through scientific instruments and the scientific methods and techniques of the Delphi and to use the futurology of health tourism industry in order not to fall behind the regional competitors in job creation and foreign exchange earnings with the regional competitors.

Keywords: Futurology, health tourism, the Delphi method, the consensus of experts

INTRODUCTION

Theoretical Foundations:

Health tourism is one of the most prosperous tourism in the world and the climatic difficulties cannot establish limits and provide deterrence to the tourists. The history of the science of medicine and documents left behind in Iran indicate tourism trips in the past.

For the first time, the term *tourism* was applied in the sport journal of *Sporting Magazine* in 1811.

There are many definitions of tourists. A few of them are as follows:

Tourists are those who leave their location for leisure for 24 hours and their residency at the place of destination does not last more than one year (Varesi, 2009). In the Webster dictionary, a tourist is someone who travels for pleasure or cultural affairs (Kazemi, 2006, p. 21).

Health tourism includes activities to heal tourist patients at all the stages of disease identification, diagnosis, and treatment so that these activities do not waste patients' time and help the patients to make use of tourist attractions and hydrotherapy after the treatment.

Hypothesis:

Forecasting and foresight guarantee the continuity of health tourism.

While empowering people, futurology prepares them for future challenges to provide solutions and design different strategies.

Aims of the study:

- Job creation and enhancing foreign exchange earnings
- Laying the groundwork for the sustainable development

- Formulating policy and strategies for planners to deal with the future challenges of health tourism industry

The main methods of futurology can be introduced as follows:

1. the Delphi method
2. the scenario planning method
3. the environmental scanning method
4. the brainstorming method
5. the patent analysis method
6. the dependency tree method
7. the morphological analysis method
8. the futures wheel method

Futurology Methodology:

The research methodology is descriptive-analytical approach using the Delphi method and the consensus of elites and experts in Microsoft Excel program for futurology and finding the opportunities and challenges ahead in the future of health tourism.

The consensus indicators were evaluated through questions and receiving the answer sheets in four rounds and receiving feedback on the qualified experts. This process was continued to achieve consensus. Through the Likert scale, the qualitative indicators (1. strongly agree, 2. agree, 3. neutral, 4. disagree, 5. strongly disagree) were turned to numerical ones (from 1 to 5). Then, with a high percentage of consensus, the indicators with high priority were selected, and the indicators with the percentage of consensus lower than 51% were removed, and then the data was analyzed.

Table 2: The consensus of professionals and experts on 5 futurology indicators through the Delphi method

	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5	Mean
Expert no. 1	5	5	5	5	5	5
Expert no. 2	5	5	5	5	4	4/8
Expert no. 3	5	5	4	4	5	4/6
Expert no. 4	5	5	5	5	4	4/8
Expert no. 5	5	5	4	4	5	4/6
Expert no. 6	5	4	5	4	4	4/4
Expert no. 7	4	5	5	4	4	4/4
Expert no. 8	5	5	5	5	4	4/8
Expert no. 9	4	4	4	4	4	3/8
Expert no. 10	5	4	4	4	4	4/2

Population:

In this study, 12 qualified experts participated to find futurology indicators. According to the Delphi method, the consensus and acceptance of indicators above 51 percent is acceptable. The professionals' and experts' degrees are listed in Table 1.

Table 1: The professionals' and experts' degrees

PhD	MA	BA	Diploma
6	5	1	-

MATERIALS AND METHODS

In order to reach a consensus of experts, 12 professionals and experts were chosen and the data was analyzed through the Delphi method and in four rounds.

At first, an open question was set. The professionals and experts were asked to address future challenges, opportunities, and threats related to health tourism in an open question.

In Round 2, after analyzing the answers to Round 1 questions, Round 2 questions were designed and presented to the experts. This process was continued until round four to reach a consensus on the futurology of health tourism.

Remaining anonymous and the opportunity to repeat questions and give feedback to the experts to change the quality options were of the research requirements, which were investigated in Microsoft Excel program after the completion of the four rounds and the analysis of answers. These indicators are discussed in the table below.

Expert no. 11	5	4	4	4	4	4/2
Expert no. 12	4	3	3	4	4	3/6
Mean	4/75	4/50	4/41	4/33	4/25	
Delphi's consensus	95	90	88/2	86/6	85	

Source: The authors' calculations

Table 2 represents the consensus views of 12 experts on their futurology of 5 health tourism indicators (1. overpopulation 2. technological changes 3. neighboring countries competition 4. globalization 5. the cost increase of medicine, travel, accommodation, and etc.); thus, planning is required to face the future challenges of this industry and to provide strategies for dealing with these challenges.

According to the results, it can be observed that in indicator 1 95 percent consensus, in indicator 2 90 percent, in indicator 3 88/2 percent consensus, in indicator 4 86/6 percent, and in indicator 5 85 percent consensus were attained. Therefore, these results expressed the unanimity and consensus of

professionals and experts on the challenges and issues of the future of tourism. If the priorities of professionals are sorted in ascending-descending order, the most consensus are related to the increase in the world population and consequently the increase in the health tourism population, and the lowest consensus of experts is related to the increase in the future tourism costs. It indicates their anticipation and foresight of the challenges facing health tourism in the future. It should be noted that the consensus from 51 to 100 percent by the experts is acceptable to the Delphi method and less than 51 percent indicates a lack of consensus and its rejection.

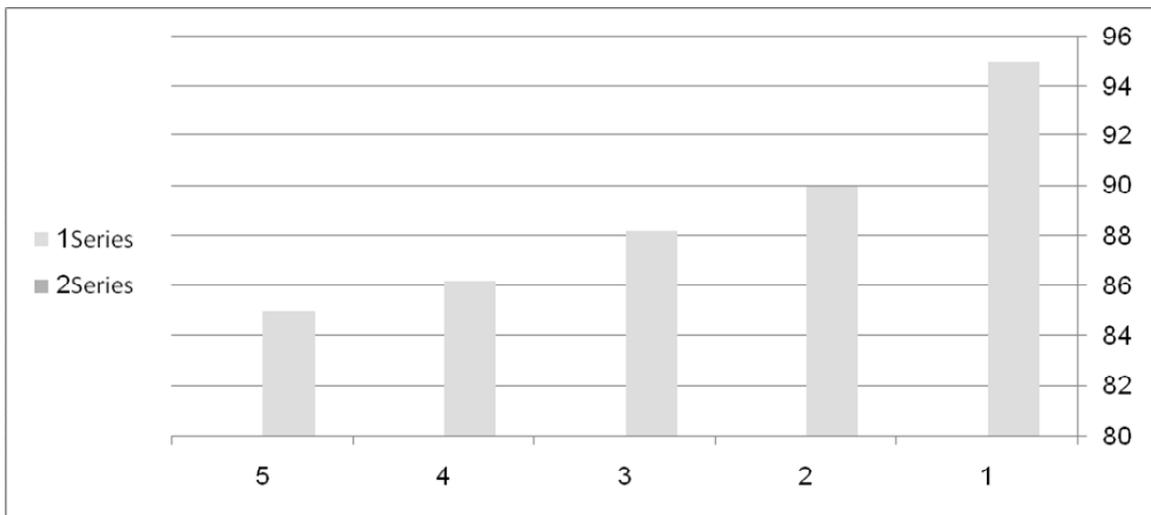


Figure 1. The graph of the mean percentage of experts' consensus on the futurology of health tourism
Source: The research findings

The results suggest the following issues in the future: 1. overpopulation, 2. technological changes, 3. neighboring countries competition, 4. Globalization, and 5. the increase in tourism costs. Thus, planners need to understand their probability of occurrence and to look for solutions.

CONCLUSION AND ANALYSIS OF FUTUROLOGY

The first consensus in the future challenges of health tourism, namely overpopulation, indicates that we will encounter increase of world population in the coming years, leading to the

increase of tourism population. Machinist life, immobility, and psychological and mental issues cause the increase of diseases and the abundance of health tourists. The governments which realize this challenge now and adjust themselves to these conditions will solve unemployment problem and can also have a greater share of this profitable industry in the future with the purpose of job creation and foreign exchange earnings.

The second consensus is on indicator 2, namely technological changes, which is the future challenge of health tourism industry. Certainly, we will observe technology changes in the coming years due to the scientific advancements in the fields of medicine, pharmacy, specialized surgery, and nanomedicines. Only those governments will be successful in the future which pay attention to education and equip themselves with the modern technology in line with advance countries and provide necessary foundations for this matter.

The third consensus, namely indicator 3 (neighboring countries competition), is one of the future issues in tourism. In addition to planning and establishing a healthcare city and standardizing infrastructures, the region's countries have initiated continuous efforts to take control of the markets of this industry and exchange earnings and job creation. It requires our planners to step into this field and compensate for their falling behind.

The fourth consensus of experts in this study, indicator 4, is globalization which will expose countries to political, economic, and social changes, including the division of the region's countries, removal of borders, changes of trade laws, and attempts to formulate universal religion and culture, which will absolutely affect tourism and other industries; therefore, planners should consider these factors in the futurology.

As for indicator 5, namely increase of future costs consented by the experts in the study, worries about the increase of medical costs, accommodation and transportation costs, airplane tickets, and medical tourism costs are some of challenges facing health tourism industry and of

concerns of consenting experts in this study, requiring searching for solutions in this indicator.

Table 3: The average of consensus of experts on responses in five indicators

Indicators	Mean
Indicator 1	4.75
Indicator 2	4.50
Indicator 3	4.41
Indicator 4	4.33
Indicator 5	4.25

Source: The study's results—By the Author

It shows: 1. overpopulation, 2. technological changes, 3. neighboring countries competition, 4. Globalization, and 5. the increase in tourism costs in futurology.

Table 3 shows mean scores of responses of experts, using the Likert scale (1 to 5).

The issue of world population increase and as a result increase of tourism population, which is the first consensus by the experts and one of the results of the research, is in line with world tourism documentation. According to an independent study, which was conducted by this study's author using health tourists, an average health tourist in Tabriz had spent about 5000 dollars, demonstrating that a health tourist' currency and expenditure are five times more than any other tourist. It indicates that profitability and foreign exchange earnings of health tourism are considerably higher.

Sometimes, for every direct job that is created, up to nine jobs may be created because employment multiplier in tourism industry is the highest ratio (Papoli-Yazdi, 2006, p. 45). For entrance of every 20 tourists, a job is directly developed, and for entrance of every six tourists, a new job (direct or indirect) is created in total. In health tourism, due to more exchange earnings, a new job is created for the entrance of every four tourists.

Table 4: The forecast of foreign exchange earnings of Tabriz's health tourism

Year	2020	2025	2030
Exchange Earnings (Dollar)	350000000	1000000000	1500000000

Source: The authors' calculations

If we can assemble private and governmental sections, develop tourism infrastructures, and employ management strengths and inter-section coordination properly, and if 70000 tourists would be attracted in 2020, and we would increase the number of tourists to 200000 in 2025 and to 300000 in 2030, considering the fact that the entrance of six tourists will lead to creation of one job and that, in health tourism, a new job is developed along with every four tourists, it can be

said that we will offer about 75000 direct jobs. Because, based on the author's researches, every health tourist enters 5000 dollars into the country, 1500000000 dollars will be injected into Tabriz's economy. If we expand this health plan to several possible provinces, we can take huge steps in job creation and foreign exchange earnings and act to promote resistance economy and avoid the single product economy.

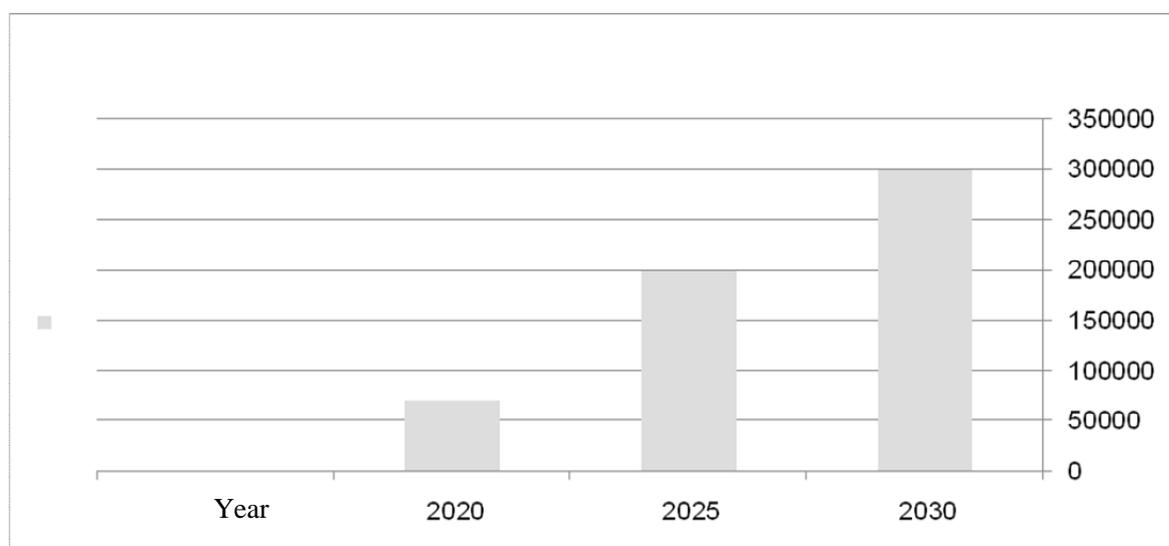


Figure 2: Histogram chart for forecasting the population of Tabriz's health tourist in the future

Source: The author

The result of this study is generalizable, and on the condition of obtaining factors that is considered in establishing health tourism in several provinces as the development and industrial pole, we can witness three billions tourists around the country and 15 billion dollars. It can provide opportunities for job creation and be effective in sustainable development and play an important role in avoiding single product economy and economic diversification.

CONCLUSION OF FUTUROLOGY OF HEALTH TOURISM

Future challenges and foresights of health tourism was investigated in four rounds with repetitions and presenting feedback to the experts until consensus was achieved, and the following results were obtained:

The challenges facing health tourism in this study are respectively as follows:

1. increase of world population
2. technological changes in medicine
3. neighboring countries competition
4. globalization
5. increase of health tourism costs

Indicator 1 with a 95 percent consensus, indicator 2 with a 90 percent consensus, indicator 3 with an 88.2 percent consensus, indicator 4 with an 86.6 percent consensus, and indicator 5 with 85 percents were approved.

The indicators, which are selected based on the priorities of consensus, indicate the order of priorities of futurology. It should be reminded that the biggest challenge facing health tourism with a high percentage is mentioned as world overpopulation, leading to the increase of health tourists in the coming years. It indicates that

planning is required to attract health tourists and that we need to promote our strengths and physical and spiritual capacities and to understand modern technologies. That's because, in the coming years, facilities, information, key knowledge, and creativity for creating a creative city will be required in the future.

Suggestions for futurology of health tourism

The findings clarify the challenges and future issues of health tourism and make planners notice these challenges. Measures which are necessary to convert Tabriz city to a development pole include:

1. comprehensive and macro planning and provincial work division based on the map for exiting single product economy
2. National culturalization for respectful treatment with health tourists
3. Inter-sectional coordinating between ministry of hygiene and tourism organization, municipality, police
4. Establishing healthcare site or healthcare city
5. Supporting investments in the private section for health tourism infrastructures
6. Establishing out-of-country exhibitions by the consulates in order to introduce Iran's abilities in the field of medicine
7. Branding and advertising
8. Creating a website for health tourist guidance about costs, medical strengths, accommodation, and ...
9. Integrating health tourism services and unified management
10. Continuous training of hospitals staff and hotels' employees
11. Standardization of hotels and accommodating centers
12. Developing and equipping hospitals
13. The relation between medical university and health tourism services
14. Developing Tabriz's airport and organizing flights and renovating air navy and planning for preventing flight cancellations
15. Renovating roads and standardizing them
16. Renovating navy and in-town services

17. Inviting famous Iranian doctors who are abroad for validation and branding
18. Continuous monitoring of costs of hospitals, clinical centers, hotels, and other accommodating, ...
19. Developing ICT and information technology
20. Observing competitors in the field of jobs and planning of competing country

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