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ARTICLE

Talent demand and urban development in City A

Ouya Hao[1*] Ningzhou Li[2] Yidu Lian[3]

1. Electronic Science and Technology, North China University of Technology, Tangshan, Hebei, 063210, China
2. Environmental Engineering, North China University of Technology, Tangshan, Hebei, 063210, China
3. Automation, Lanzhou university of technology, Lanzhou, Gansu, 730050, China

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ABSTRACT

The introduction of talent programs is one of the key programs in many cities in recent years. In order to "encourage and enrich the people and innovate the city", cities such as Beijing, Shanghai, Wuhan, Chengdu, Xi'an and Shenzhen are using various attractive policies to compete for talents. Based on this, this paper uses BP neural network and analytic hierarchy process to model and analyze the talent demand of A-City and the development of the city.

1. Introduction

The introduction of talent programs is one of the key programs in many cities in recent years. In order to "encourage and enrich the people and innovate the city", cities such as Beijing, Shanghai, Wuhan, Chengdu, Xi'an and Shenzhen are using various attractive policies to compete for talents. Talents are the driving force for urban innovation and development. They can learn better skills, make better products and master better management methods in a short time. At the same time, talent is also the main driving force for urban innovation diffusion, and innovation diffusion is achieved through the development of new technologies and technologies through high-quality talents. Today, companies typically recruit talent through the Internet, campus job fairs, open recruitment events, and local talent markets.

2. Analyze the Talent Needs of City A From Three Aspects

According to the data given in the annex, when analyzing the talent demand of "A-City Employment Market", this paper stands on the perspective of expectant occupation, and analyses the employment demand and expectant education background of "A-City Employment Market" in all fields of "A-City" embodied in the annex.

In the annex, the background of talent demand in A city during the 36 months from 2015 to 2018 is given. From the perspective of employment demand, we analyze the total demand in various fields in the annex data and draw charts using MATLAB. Observe their trends.

**Corresponding Author:*
Ouya Hao,
Electronic Science and Technology, North China University of Science and Technology, No. 21 Bohai Avenue, Caofeidian District, Tangshan, Hebei, 063210, China;
Email: 1643360071@qq.com

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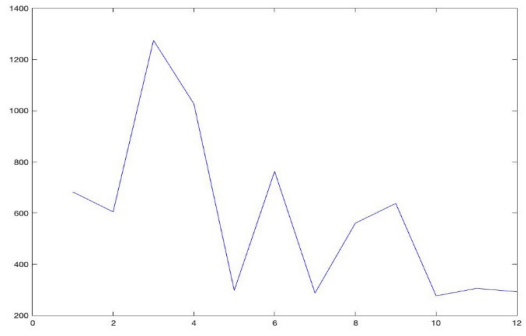

Figure 1. Quarterly Breakdown of Talents Demand in Computer Software

Take computer software as an example. As shown in Figure 1, the abscissa is given by the attachment for 36 months and 12 quarters, and the ordinate is the talent demand of computer software. Figure 1 shows that the demand for talents in the field of computer software tends to be stable. In the annex, the trend of change in the remaining 47 areas of A-City is basically the same as that in the field of computer software, which shows that the employment demand of A city tends to be stable and the development of A-City's talent employment market tends to be mature.

In terms of the expected educational background, we assign 1, 2, 3, 4, 5, 6, 7, 8 and 9 points to the unrestricted degree, secondary school, technical secondary school, junior college, bachelor's degree, master's degree, doctor's degree and MBA under the educational background. Using (1) formula, the scores of each field are calculated separately.

$$w = \frac{\sum x_i y_i}{\sum y_i} \tag{1}$$

After calculating the corresponding values of each sector each month, the work of calculating the average values of all the months given in the annex is carried out. By observing the calculated scores, the closer the scores are to "9", the more highly educated talents are needed in this field. On the contrary, the smaller the score calculated, it shows that the field is absorbing talents with lower educational background.

Form 1. Expectations for each sector

Sector	Educational expectations corresponding to this sector
Science and technology	5.17
Education	5.06
Translation	5.24
…	…
Literature/screenwriting/writing	2.47
QMS/safety/environmental protection	2.07
Transportation service	1.86
Real property	1.75
Beauty and personal care	1.68

As shown in Form 1, science and technology, education and translation have the highest expectations, indicating that A-City needs highly educated personnel in the fields of science and technology, education and translation, while for the transportation industry, the service sector and other aspects, the requirements for academic qualifications are not high.

In fact, the higher the educational background, the better the talent needed in all fields. But for A-City, it may be that the city is not a key city, which makes the number of master's degree, doctorate degree and master's degree in the talent employment market of A city too small.

3. Establishment of A-City's Practical Talent Demand Model

Assuming that the data in the "A-City Employment Market" is an ideal model, this paper establishes the actual talent demand model of A-City by looking for the influence rate of the employment situation of Chinese students on the talent demand of "A-City Employment Market".

Based on the ideal talent demand model of A city, this paper studies the employment situation of Chinese students, taking the total recruitment enterprises, recruitment posts and recruited new people in each month in the appendix data as the basis.

By investigating the basic employment situation of the schools around the graduates by Liaoning Human Resources and Social Security Bureau in 2017, this paper conducts chi-square test to analyze the influencing factors of the employment situation of the graduates. According to the three dimensions of feasibility motivation, value evaluation motivation and self-expectation motivation, the standardized data of 11 indicators were selected in this questionnaire for factor analysis [1].

It is found that the government's attitude toward college graduates, whether they are in urban economic conditions, whether their families support going out to work, their physical condition, and whether they have professional skills have a greater impact on the feasibility motivation. Local employment policies for college graduates, perceptions of the urban contribution rate of college graduates and the ability of employment to demonstrate their skills have a greater impact on the motivation of value assessment. How-

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ever, the expectation of annual employment income, the expectation of living standard after employment, and the expectation of enjoying employment urban social insurance have less influence on self-expectation motivation.

Based on this impact, the average employment rate of Chinese students is 91.6% by collecting relevant data. In other words, the actual talent demand model of A-City is 91.6% of the ideal model of talent demand in the A-City employment market.

4. Predicting and Analyzing Potential Talent Demand of A-City in the Next Three Years

Using the data given in the annex, statistical analysis was carried out by extracting recruiting companies, recruitment positions, and recruited new employees in each month of the total demand for talents in the city.

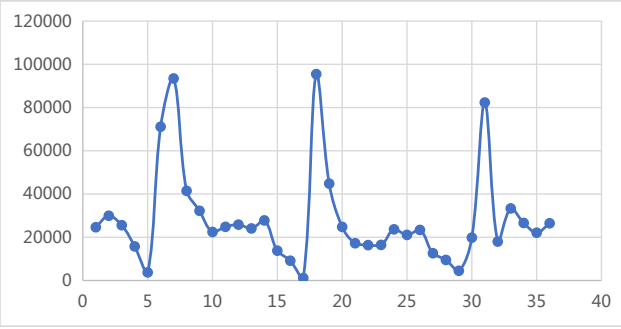

Figure 2. A-City's Talent Demand in Months

As shown in Figure 2, a monthly statistical chart of the number of employees recruited in A-City shows that the demand for talents in this city changes periodically.

According to the cyclical change of talent demand from 2015 to 2018 and the talent demand in the employment market of A-City from 2011 to 2012, this paper uses the method of BP neural network to forecast the talent demand of A-City in the next three years by using MATLAB.

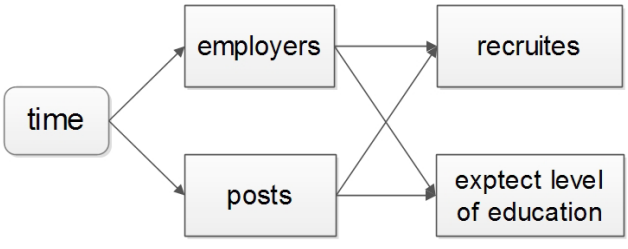

Figure 3. Three-layer BP Neural Network

In this paper, from 2011 to 2018 as the input layer of the BP neural network, recruitment enterprises and recruitment posts as the hidden layer, and recruitment volume and expected education level as the output layer of the BP neural network.

Form 2. Potential Talent Demand of A-City in the Next Three Years

Years	Talent Demand of A-City (Ten Thousands)
2019	30.56
2020	34.42
2021	41.71

The talent demand of A-City in the next three years is shown in Form 2. The potential demand for talent in the next three years is almost the same as that in the period from 2015 to 2018. However, the demand for talent is also affected by the city's GDP, the relevant government policies and the 13th Five-Year Plan's 100 major projects.

5. Infer the Possible Location of A City and the Development of Industry

Based on the above-mentioned statistical analysis of relevant data, it is found that the talent market in A-City is between 300,000 and 400,000. The employment figures of the cities in the first, second, third and fourth tier cities are collected using the employment data of the cities published by the Ministry of Human Resources and Social Security of the People's Republic of China, as shown in form 3. Combined with the number of talents in A city, it is found that the demand for talents in A-City is similar to that in China's fourth-tier cities.

Form 3. Employment in each city

First-tier city			Second-tier cities		
Beijing	Shanghai	Guangzhou	Xiamen	Hal Ice	Kunming
742.3	619	324	130.3	137.4	137.3
Third-tier city			Fourth-tier city		
Yangzhou	Tangshan	Baoding	Liaoyang	Xiangtan	Leshan
101.1	96.7	99.9	30	35.4	29.3

China's economic development has achieved remarkable achievements and has formed a certain scale of economic circles. China's current four economic circles are: the Pan-Pearl River Delta regional economy centered on the Pearl River Delta, Guangdong and the radiated Fujian; the Shanghai-Nanjing-Hangsu economic region dominated by the Yangtze River Delta, the Yangtze River estuary Shanghai as the center and then Jiangsu , Zhejiang; the Bohai Economic Circle, with Beijing and Tianjin as the center to radiate Hebei, Henan, Shandong; Northeast old industrial base, Heilongjiang, Jilin, Liaoning.

There are also China's emerging economic circles: the economic circle centered on Xinjiang Urumqi, the typical mineral resource regional economy; the economic circle centered on Hohhot, Inner Mongolia, typical mineral

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resources and natural pasture-based post-regional economy; The economic circle centered on Xining in Qinghai, Lanzhou in Gansu, and Yinchuan in Ningxia, typical resource-driven economy; the economic circle centered on Shanxi Taiyuan, typical coal-type economy; the economic circle centered on Xi'an in Shaanxi, typical cultural tourism Type economy; economic circle centered on Zhengzhou, Henan Province, typical labor-type and transportation-type economy; the cultural economy centered on Sichuan and Chongqing, typical inland-type cultural economy; centered on Wuhan, Changsha, Nanchang and Hefei Economic circle, typical transportation convenience economy; economic circle centered on Kunming, Yunnan, border trade and tourism economy; North Bay Economic Circle with Guangxi as the center, typical marine resource-based economic circle; Haikou-centered economy Circle, tropical tourism and marine resource-based economic circle; economic circle centered on Lhasa, Tibet, climate tourism culture and economic circle.

Through statistical analysis of market demand in A-City, it is found that A-City has no industry demand in the fields of ocean, port, agriculture, mineral resources, etc. Therefore, it can be judged that A-City is a ship underdeveloped, low level of agricultural development, and no large amount of mineral resources. Inland city. Compared with the characteristics of China's economic circle, this paper believes that A-City is most likely to be located in central China, and it is most likely that A-City is located in the economic circle centered on Xi'an, Shaanxi Province, China.

In addition to the traditional industries, the talent demand of the A-City is mainly reflected in the fields of computer technology and manufacturing. So there is reason to believe that A-City is a emerging city. In the future, high-tech industries in the fields of computer and hardware manufacturing will flourish.

6. Provide Strategies for City Development and Talent Introduction in City A

The use of analytic hierarchy process to model and quantify the emerging employment trends of college students, participate in village officials exams, take civil service exams, start their own businesses, engage in resignation, and study abroad, leading to the diversification of the types of employment of college graduates. Through consulting the data, it is found that the five factors of social environment, natural environment, salary, personal interest and family pressure have greatly affected the employment tendency of college students.

Select five factors: social environment, natural environment, salary, personal interest, family pressure as the criterion level; participate in village official examinations, take civil service examinations, start their own businesses, engage in resignation, study abroad as a program level; employment orientation as Target layer building model

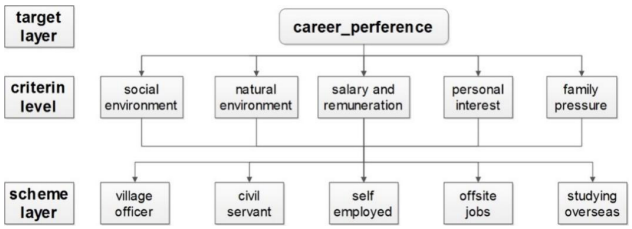

Figure 4. The hierarchical structure of college students' employment tendency

The paired matrix of the five factors of the criterion layer to the target layer is:

$$C=\begin{bmatrix} 1 & \frac{1}{2} & 4 & 3 & 3 \\ 2 & 1 & 7 & 5 & 5 \\ \frac{1}{4} & \frac{1}{7} & 1 & \frac{1}{2} & \frac{1}{3} \\ \frac{1}{3} & \frac{1}{5} & 2 & 1 & 1 \\ \frac{1}{3} & \frac{1}{5} & 3 & 1 & 1 \end{bmatrix} \tag{2}$$

Pairwise comparison matrix Maximum eigenvalue λ=5.073, the normalized eigenvector corresponding to the eigenvalue

$$\omega=\{0.263,0.475,0.055,0.099,0.110\} \tag{3}$$

then

$$CI=\frac{5.073-5}{5-1}=0.018 \tag{4}$$

$$RI=1.12 \tag{5}$$

Therefore

$$CR=\frac{0.018}{1.12}=0.016<0.1 \tag{6}$$

Show C passed the consistency test.

Through calculation, the weights of participating in the village official examination, taking the civil service examination, starting their own business, engaging in leaving work, and studying abroad are respectively 0.346, 0.329, 0.401, 0.372, 0.456.

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According to the results obtained by the analytic hierarchy process, A-City should support students to start their own businesses, leave their jobs, study abroad, and encourage them to participate in the examinations of village officials and civil servants in accordance with the principle of fully respecting graduates' career choices. This paper takes the development and talent introduction strategies of dozens of advanced cities in Shanghai, Nanjing, Hangzhou, Wuhan, etc. as examples, and proposes the following three suggestions for A-City:

(1) Students who stay in the local area can enjoy housing rent subsidies. For example, college graduates in Nanjing will enjoy subsidies for renting, with a doctoral degree of 1,000 yuan per person per month, a master's degree of 800 yuan per person per month, and a bachelor's degree (including senior workers and above) of 600 yuan per person per month. If the actual rent is lower than the subsidy standard, the actual rent subsidy will not exceed 36 months.

(2) Encourage college students to start their own business. For example, Hangzhou provides 50 square meters of work space for entrepreneurs in the Pioneer Park and rents are exempted for the first three years.

(3) Settled to give housing subsidies. For example, Changsha has given 60,000 yuan and 30,000 yuan to purchase housing subsidies for the first-time home purchases of full-time college graduates (excluding government and institutional personnel) who have settled in the city and work in this city.

7. Suggestions and opinions about IT professional training program

With the rapid development of the "Internet +" era, the demand for IT talents in enterprises and countries has also increased. The development of IT technology has profoundly affected the political, economic, military, and cultural aspects of various countries. The competition of IT technology has become an important part of national competition. The fundamental of IT technology competition lies in the cultivation of talents. The cultivation of high-quality IT talents has become the primary task of IT education in Chinese universities. Through the exploration and research on the talent training model of North China University of Technology and the national IT industry, the following suggestions are put forward to improve the quality of IT talent training in our school, meet the needs of IT talents at home and abroad, and improve the employment level of students.

In terms of curriculum construction, students should be the center. Teachers should assist and guide students to motivate students to actively learn and create more opportunities for independent thinking and practice. Open and exploratory experiments should be conducted in the classroom so that students can integrate into the classroom and gain knowledge from practice. Moreover, some foreign countries have created a practical teaching model that combines industry and education jointly created by the IT industry, relevant government departments, and the education sector. If conditions permit, we can also adopt this method. In the planning of professional courses, it is necessary to focus on the characteristics of IT professional application-oriented personnel training, based on the principle of "thick foundation, strong application, and characteristics" and strong application ability, highlighting IT practice teaching and design in talents. The role of training to plan theoretical and practical teaching and graduation design curriculum systems to meet the needs of IT talent development.

For the cultivation of applied talents, the combination of schools and enterprises should be further strengthened. School-enterprise cooperation can't just stop sending senior students who have passed the enterprise audit to the company for training and internship. In order to make the enterprise requirements and the school teaching content closely integrated, so that more fresh students meet the enterprise standards, quickly integrate into the enterprise work, and save the enterprise training funds. The school-enterprise cooperation model should be innovated from the following aspects:

(1) The enterprise sets relevant courses in cooperative universities according to the production process.

(2) Establish scholarships for these courses.

(3) Enterprises can also regularly carry out project competitions synchronized with operations in colleges and universities, so that students can keep abreast of the latest technology trends.

(4) Regularly select students who have performed well in the course assessment and competition to enter the company's real production practice during the university's winter and summer vacations. In this way, we can promote the development of school-enterprise cooperation and deliver a steady stream of high-quality talents for enterprises[5].

We should speed up the integration with internationalization, break through traditional concepts, and run international schools. As a government, we should give certain economic support and formulate corresponding policies to optimize the structure of educational resources and truly realize the internationalization of running schools. As a school, we should introduce advanced foreign teaching methods and professional training materials from interna-

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tionally renowned IT vendors, provide students with the latest development platform, open IT professional English courses, require students to easily understand IT English materials, and use the English-language development software. The training of core teachers regularly arranges opportunities for teachers to learn new technologies and encourages teachers to lead students to participate in related business projects, schools should provide opportunities to increase the number of exchange students [3].

For the individualized training of college students, we should teach students in accordance with their aptitude and orientation. We should adopt a hierarchical positioning teaching mechanism, set up multi-directional courses, improve the flexibility and practicability of the curriculum, and train special high-level IT talents to achieve "teaching in accordance with their aptitude and directional training". First, let students know every position in every section of the IT industry, and then clarify the direction they have learned. In addition to the basic compulsory courses, the relevant courses are purposefully selected. For students with different interests and abilities, set different professional training models, develop different learning plans, and maximize the potential of students.

The recent graduates entering the enterprise from the campus, how to quickly adapt to the needs of enterprises and society, is the main problem facing the employment of college students. Especially for IT students, development experience and practical ability are the best step to success in employment. With the continuous advancement of computer science and modern technology, the form of the information industry has also undergone major changes, and the requirements for the knowledge structure and innovation ability of computer professionals have gradually increased, so it is necessary to build up with the times. Undergraduate IT talent training mode is an important goal for the research and reform of computer science professional training system in China. We should aim at the cultivation of applied professionals, aim at market demand, and actively promote the coordination of schools and enterprises according to the professional characteristics of their own institutions, so that students can contact enterprises on campus, understand the business model and practical operation forms, and make students graduate. Can be integrated into the business as soon as possible.

8. Conclusion

Using BP neural network to analyze the potential talent demand in the next three years, BP neural network has strong nonlinear mapping ability; it has strong self-learning and self-adaptive ability. Using the idea of analytic hierarchy process to model and quantify the emerging employment tendencies of college students is convenient and practical. The analytic hierarchy process is a combination of qualitative methods and quantitative methods. Apply to the data adequately.

References

[1] Han Xuefeng, Liu Yang. Analysis of college students' employment willingness and its influencing factors[J]. Social Sciences, 2018, 33(07): 81-85.

[2] Huang Yan, Liu Shengwen. Analysis on the Talent Attraction Strategy of SMEs[J]. Human Resources Management, 2017(08): 183-184.

[3] Chen Jianing, Chen Yiyi, Qin Xia, Guo Shuxin. A Comparative Study of IT Talents Training Model Based on International Vision[J]. Intelligence, 2018(27): 35-36.

[4] Gong Faming, Cui Xuerong, Li Kewen, Wu Chunlei. Analysis on the Construction of New Mode of IT Professional Training in Colleges and Universities [J]. Higher Education Journal, 2018(20): 154-156.

[5] ZHANG Ying,ZHANG Yuyu,WANG Hongyan. Study on the training mode of IT talents based on school-enterprise collaboration[J]. Shanxi Science and Technology, 2018, 33(01): 80-82.

[6] Christian Reiner,Susanne Meyer,Sascha Sardadvar. Urban attraction policies for international academic talent: Munich and Vienna in comparison[J]. Cities, 2016.

[7] Halyna Oleskova. Dual Education as the Peculiarity of Specialized Training of Nursing Personnel in Germany[J]. Comparative Professional Pedagogy, 2017, 7(2).

[8] Jyoti D. Chouhan,Katherine M. Fischer,Jeremy Weedon,Jeffrey P. Weiss. Current Urology Views on Desirable Characteristics for First-Time Employment[J]. Urology Practice, 2016, 3(5).

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REVIEW

From Uncle Sam to Just Trump: A Long Way of Alternating Irony-hate-ambivalence among Russian Users-Students Regarding Politicians

Andrei Ulianovskii* **Dobrova Tatiana** **Olga Filatova** **Vadim Golubev**

St. Petersburg State University, Universitetskaya nab 7/9

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ABSTRACT

The paper is discusses the role of emotionally significant political images in youth culture. The study covers the period between 2006 and 2017 during which Russia saw not only a political and economic transition but also dramatic changes in communication technology. The 6-stage research included two waves of testing in 2006, 2012, 2017. Respondents were aged 17 to 24 years old. In 2017 the general youth international value agenda can be considered formed, with its essential feature being the further reduction of the influence of advertising and communication of politicians' brands.

1. Introduction

These materials represent a relatively small part of the conclusions of the third wave of the stereotypical, qualitative, long-term study (2006, 2012, 2017) of the young educated people consciousness content aged from 17 to 23. The study is called "Fictional creatures of the mass media era. Russia, 21 century".

38 authors of texts and 19 illustrators took part in the project 2017. Young people from 19 to 22 years old. Higher education in the Humanities and Social Sciences or being a student of the relevant departments of universities were still an obligatory condition. The very selection procedure implied, as well as in 2012, an objective selection of creatively gifted young people according to the criteria of this project. At the first stage young people themselves, without prompting, recalled fictional beings during several sessions working in groups (not fewer than 4 hours). Next,

**Corresponding Author:*
Andrei Ulianovskii,
St. Petersburg State University, Universitetskaya nab 7/9;
Email: ullianav@gmail.com

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a list of 271 creatures was formed as a result of the remembering stage. At the next stage, the authors chose for themselves specific images to describe or draw them, that is, the selected image was to motivate the author for additional work and personal time spending. The latter means a certain degree of sympathy or interest in these images. It is the emotional significance, the voluntary choice of the image from the list and the formal parameters of the description result that make this format of their presentation extremely rich for the research. This format of their description is close in meaning to 2 the format of media content presentation. Young people described the most popular images for them, which they could independently remember. The choice was made from the entire volume of direct knowledge of humanitarian-oriented young people. The aim of the study was to record the changes that have occurred for over 6 years in the advertising and media markets of the country, through reflection, through subjective recollection/perception of the target audience. The latter correlates with the value picture of the world of youth. As a result, as it follows from the comparative analysis of three waves of research: a set of hardware and software factors have had an impact on the volume of information consumption, the ways of its selection, including traditional explicit forms of advertising, which becoming too deliberate, are reducing their confidence and the ability to attract attention. The method of research was a survey and focused interview to obtain a list of images and a projective technique to obtain the content of consciousness in the form of text, visual descriptions of the future.

Social media demonstrated dramatic growth in Russia since 2006. Internet became faster to the point that it allowed people to watch English-language TV series on their smartphones, exchange links to dynamic content, and create humorous photo collages with various characters. Our study demonstrates that this combination of software and hardware developments made a great impact on viewer content and, consequently, on young peoples' values [1].

2. Literature Review

A survey of literature relevant for our study yields the following conclusions:

(1) There is an extensive body of research in social media and other ways of digital communication [6,8,12,17,18,19]. Contemporary media studies devoted to "format" as a mechanism of producing an online media text as part of convergent media production process [9,13] view format as a way to express social reality. It views an event as "information", separating it from "non-information". However, there is still a need for further research if we are to fully understand the role of digital media in creating the social myth of imaginary characters.

(2) The study of imaginary characters in politics and political mythology can be found in [2,3,7]. Formalists Propp V., Jakobson R. laid the foundation for a structural understanding of classical mythology [10,16]. Later, the formal approach could be applied to modern social mythology communicated via social media.

(3) Bottici C., Esch J., Lieberman S., Gray T. provide a theoretical framework of the imaginary as a combination of historical knowledge, current culture, and political myth-making [2,5,14]. Persson E. & Petersson B., Danilov M. focus on different aspects media impact in post-soviet countries [4,15,16].

(4) Advertising and public relations research focuses on the modern social myth aspects of the media. In order to create successful projects in the fields of political PR and public administration, one should be able to integrate political mythology into humanities, media "format", contemporary art and folklore. In relation to characters, this idea means dropping semantic boundaries between the fictional and the real. 3

However, there is a significant difference between the political culture of those who were born in Russia and those who were born in the USSR. The reason is the nature of media (classical electronic media vs digital media) and the context of cultural socialisation.

In 2016 the article Social Media Impact on the Transformation of Imaginary Political Characters in Russian Youth Culture [1] was published, which describes in detail the data of two waves of research conducted by a similar method, on a similar demographic group of respondents. The researches were carried out 13 and 6 years ago. The findings of these studies were intriguing. By 2012, the Internet, memes of the Internet, had almost destroyed such a channel of horizontal communication in Russia as anecdotes. It is possible to state a decrease in level of education in historical and literary disciplines, and a sharp narrowing of the General Outlook of youth; Through the Internet, young people have access to English-language TV series, which are characterized by the image of the anti-hero. In 2006 the descriptions of political creatures detected remains of fundamental pillars of Soviet ideology, such as "Mother-land", "Soviet hero", "the Revolution and the heroic ascetics, revolutionaries". It turns out that, among the many ideologies of the USSR these ones have shown the greatest vitality.

3. Research Methodology

The tradition of obtaining sociologically representative psychographic data of the target audiences (goals, values,

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opinions, interests) through instructions to name and describe the characteristics of fictional creatures in connection with a particular object of research is rooted in the practice of brand research. When people talk about individuality (personification) in relation to social mythology, they understand it as "a set of characteristic features of a person's personality with which this brand is associated". [20]).

V. Domnin, in his book "Branding: new technologies in Russia" [21] points out that "the brand as an image in the consumer consciousness does not formally possess any human characteristics, it is a projection of the internal contents and representations of the consumer on the external object. However, it is the only way it can be described. In some cases we can consider this kind of description as a detailed metaphor that transfers the qualities of a person to everything that surrounds us. David Aaker [20] points out that the brand identity includes human characteristics such as age, stratum, gender, as well as human qualities such as warmth, caring and sentimentality. David Aaker with American pragmatism points to the benefits of using the concept of brand personality as the basis of its existence as in the process of qualitative and quantitative research conducting, subjects are usually asked to give the most characteristic features of the individual to brands, since in this case", the answers follow quickly, they are usually understandable and logical in their basis, "and the differences in the responses of users, usually endowing brands with individuality, and the answers of non-users, often refusing brands in individuality", provide the ground for the implementation of useful approaches to the problem» [20].

That is, by studying in this article the values of young people through the relevant images of characters, we are dealing with a genetic variety of projective research methods: extremely effective, proven and perfected for several decades "on the fields" of branding.

4. Research Data: Emotionally Significant Images

In 2017 the following trends were identified:

(1) The most popular delivery channel for a creature is cinema/television (44% of all creatures).

(2) 79 % of the source of cinema/television make up foreign characters (movies/TV series/cartoons). A small number of characters of Russian origin indicates widespread Americanization of mass consciousness of young people, as well as the lack of interest of young people to the characters with Russian mentality

(3) The characters of the series are sufficiently presented in the list (making up a fifth). As it was mentioned above, the characters from America overflow Russian space.

(4) The prevalence of the characters of classical literature over the characters of modern literature (by about 3 times) indicates the level of education of young people, as well as their interestsThe characters of classical literature, their characters and lifestyles are more attractive to young people.

(5) Characters of classical literature, their characters and comic book Characters (16%), although originally created on paper, have become known thanks to the movies made by the Company of Marvel.

(6) Characters of Russian literature are less popular than characters of foreign literature. If in classical literature the percentage is quite equal (42/58), in children's literature foreign works clearly prevail (29/71).

(7) In the source "modern folklore/computers/memes" a large share is occupied by Internet memes (64%). Stickers are next in popularity (12%). Some memes are then popularized even more by switching to stickers. In the subcategory "Other Internet bloggers, community for suicide, *the Blue whale*," have became popular.

(8) There was an interesting group "objects of art". St Isaac's Cathedral, a subject of public discussion is perceived as a being due to the constant interest on the part of different groups. His interests are protected and upheld. It was one of the most popular agendas in 2017 in St. Petersburg.

(9) There are extremely versatile characters that are found in different sources in the group "show personas". Young people paid attention to the most influential politicians of the present time mr. Trump and mr. Putin.

In 2006 respondents mentioned seven nationality-related characters or groups (an Englishman, an American, Germans, a Russian, a Finn, a Frenchman, and a Chukchi), eight political images (Big Brother, Paper Tiger, Stormy Petrel, Dove of Peace, Motherland, Soviet Hero, Democracy, and Freedom), three images associated with United States politics (Uncle Sam, Democratic Donkey, and Republican Elephant), five and seven historical persons (Vasily Ivanovich Chapaev, Ivan the Terrible, Peter the Great, Rasputin, Grandpa Lenin, Vovochka (Lenin as a teenager), and Che Guevara).

In 2012, respondents mentioned just nine imaginary political characters. They include seven political images (Big Brother, MedvePut (formed by combination of the two family names: MEDVEdev and PUTin), P is a mushroom, Tandem, Powerful People of the World, Friendship of Nations, Great Chief), one historical person (Stalin), and one politician (Zhirinovsky).

Among the creatures of 2017 the following can be at-

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tributed to politics Bronze Horseman (see Figure 1), Captain America (see Figure 2), Mycroft Holmes, Mr. Putin, Mr. Trump (see Figure 3).

Figure 1. Bronze Horseman

Figure 2. Captain America

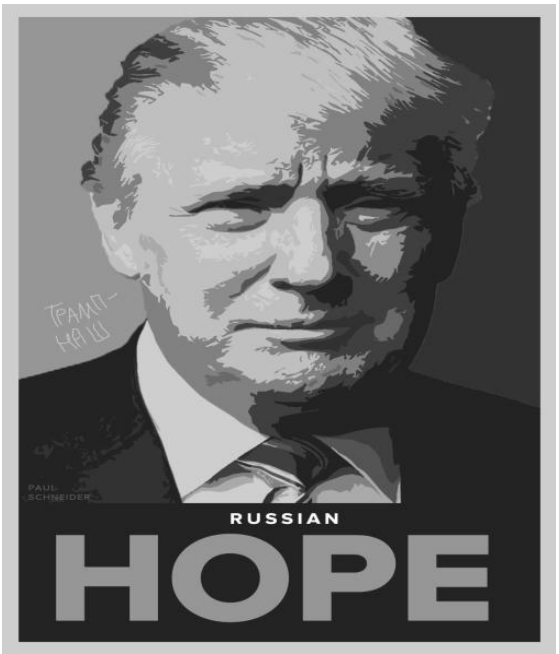

Figure3. Mr.Trump

5. Conclusions

Several conclusions follow from the study.

The images related to American politics have been replaced by the American heroes of the series. There is no ideology, no political myths of self-identification.

There is an increased tolerance to violence for the sake of logical and reasonable ideas;

Both in 2012 and 2017 an indifferent attitude to politics and power was shown, it is not interesting for young educated humanitarian people in its bulk.

The study has shown that the younger generation is not losing touch with reality: fictional characters coexist with real images of media personalities and objects of the socio-cultural reality.

A completely unexpected facet and an amazing feature of this connection is the blurring of the boundary between the objects of fiction and reality. At the same time, and it is shown by the research data of 2017, such a "borderline" phenomenon between fiction and reality as "classical folklore" by "word of mouth" has almost disappeared. The spread of humor, anecdotes and popular stories is now happening through the Internet, not talks.

Respondents perceive socially significant images through the prism of social networks, but many characters are perceived by respondents as an image that came from 7 different sources and young people are not alien to complex and contradictory characters from classical literary works.

The images of Putin and Trump are conveyed in a deliberately classical, restrained manner. You may notice a handwritten postscript of the author on the poster of Trump: *Trump is Ours*.

6. Further Research Avenues

The current study analyses data collected before the dramatic change of power in Ukraine and the subsequent changes in Russian foreign and domestic policy.

A third wave of our research in 2018 could give us unique empirical data for further studies of young people's attitudes to Russia's transition from a traditional free market economy and a western-type democratic political system to a new political model as reflected in the world of fictional characters.

We need to verify the statement that the current political authorities had lost an exalted status in the eyes of Russian youth and now look monstrous. Also, we need to verify empirical data about youth's acceptance of war as an ideology and its esthetisation.

A more advanced research methodology is required to assess the role of social media in the perception change

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and to assign the change to social media.

References

[1] Ulianovskii, A., Golubev, V., Filatova, O., Smirnov, A. Social Media Impact on the Transformation of Imaginary Political Characters in Russian Youth Culture. In Chugunov, A., Bolgov R., Kabanov, Y., Kampis, G.,Wimmer, M. (eds.) The Digital Transformations & Global Society. Conference paper, CCIS, Springer, 2016, 674: 35-44.

[2] Bottici, C. A Philosophy of Political Myth. Cambridge University Press , 2007.

[3] Cassirer, E.. The Myth of the State. Greenwood Press, 1979.

[4] Danilov, M. Fol'klornye obrazy v predstavlenii socialno-gumanitarnoi intelligenzii nacha-la XXI veka. In: Ulianovskii, A. V. (Ed.). Vymyshlennye sushchestva epokhi massmedia: Rossiia, XXI vek. Volna 2012. St Petersburg: Svoe Izdatelstvo, 2013: 200-208.

[5] Esch, J. Legitimizing the 'War on Terror': Political Myth in Official-Level Rhetoric. Political Psychology, 2010, 31(3): 357-391.

[6] Evans, D. Social Media Marketing: An Hour a Day. Symbex, 2008.

[7] Flood, C. G. Political Myth: A Theoretical Introduction. New York: Garland Pub. Inc., 1996.

[8] Halligan, B., Shan, D. Inbound Marketing: Get Found Using Google, Social Media, and Blogs. Wiley, 2009.

[9] Ilchenco, S.N.The dualism of the internet in modern media: pros and cons. In Proceedings of the 1st Annual Conference. Sovremennye SMI v kontexte informacionnyh tehnologii, The St Petersburg State University of Technology and Design, St Petersburg, 2015.

[10] Jakobson, R. Selected Writings. 8 vols. ʾs-Gravenhage: Mouton, 1998.

[11] Karlan, D., Lazar, A., Salter, J. (2006). The 101 Most Influential People Who Never Lived: How Characters of Fiction, Myth, Legends, Television, and Movies Have Shaped Our Society, Changed Our Behavior, and Set the Course of History. William Morrow, 2006.

[12] Kaushik, A. Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity. Sybex, 2009.

[13] Kim, M.N.. The production of media in a converge of mass media. In Proceedings of the 1st Annual Conference. Sovremennye SMI v kontexte informacionnyh tehnologii. St Petersburg State University of Tecnology and Design, St Petersburg, 2015.

[14] Lieberman, S., Gray, T. (2007). The Role of Political Myth in the International Conflict over Genetically Modified Foods and Crops. European Environment: The Journal of European Environmental Policy, 2007, 17(6): 376-386.

[15] Persson, E., Petersson, B.. Political Mythmaking and the 2014 Winter Olympics in Sochi: Olympism and the Russian Great Power Myth. East European Politics, 2014, 30 (2): 192-209.

[16] Propp, V. Morphology of the Folktale. L.: Academi, 1928.

[17] Qualman, E. Socialnomics: How social media transforms the way we live and do business. Wiley, 2009.

[18] Ulianovskii, A. V. Vymyshlennye sushchestva epokhi massmedia: Rossiia, XXI vek. St Petersburg: Knizhnyi Dom, 2008.

[19] Ulianovskii, A. V. (Ed.). Vymyshlennye sushchestva epokhi massmedia: Rossiia, XXI vek. Volna 2012. St Petersburg: Svoe Izdatelstvo, 2013.

[20] Aaker, D.A. Building a strong brand. New York. Free Press, 1996: 178-179.

[21] Domnin, V. Branding: new technologies in Russia. SPb., Piter, 2002: 82.

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ARTICLE

Research on China's Population Structure in the New Situation

Jingxuan Cui* **Mengshuai Yin** **Zerong Liu**

North China University of Science and Technology, Tangshan, Hebei, 063210, China

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ABSTRACT

To analyze the impact of the "two-child policy" on the population size and structure, first of all, the birth rate, the ratio of men and women, and the ratio of urban and rural population are used as indicators. Before and after the dispersion, then establish a PDE model, and compare it with the population predicted by the gray forecast to analyze the mitigation of the ageing of the second child policy; continue to analyze the impact of changes in the population structure on the national economy, and select the male and female ratio and the labor population The urban-rural population ratio is used as an index to establish a multiple regression equation for analysis, and a related regression equation is obtained. Finally, the future marriage problem is analyzed, considering only the difference in the number of men and women entering the marriageable period at the same time. The difference in the number of marriageable populations is analyzed through the difference in the number of men and women born at birth, focusing on a dynamic perspective.

1. introduction

Chinese population growth has undergone a historical change in just half a century after the founding of the People Republic of China. With the rapid development of our economy and the significant improvement in people living standards, China 's rapid transition from a high fertility rate to a low fertility rate, the main contradiction of our population Another is excessive growth, but imbalanced gender ratios and increasing population ageing. Against this background, the country has implemented a comprehensive second child policy.

The purpose of the policy is to increase the number of new students and adjust the population structure. This article establishes a model to determine the relevant impact indicators, to judge the short-term effects of the implementation of the new policy, and to the changes in China's population size and structure (gender, urban and rural, aging, etc.) by 2035 or 2050. The impact of the national economy and the mitigation of the imbalance in the sex ratio of our population.

The comprehensive second child policy can adjust and improve the fertility policy, promote the increase of the population, improve the structure of the family, alleviate the problem of aging and the imbalance of gender ratio, and is conducive to the harmonious and stable development of society. In addition, the second child policy is conducive to maintaining a reasonable number and structure of the labor force, and is conducive to the balanced development of the population and the long-term development of the country.

2. Evaluation of Short-term Effects of the Second Child Policy

In order to analyze the short-term effects of the imple-

**Corresponding Author:*
Jingxuan Cui,
North China University of Science and Technology, No. 21 Bohai Avenue, Caofeidian District, Tangshan, Hebei, 063210, China;
Email: 1643360071@qq.com

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mentation of the second child policy, this model starts with the impact of the policy on the number of people and the population structure, and uses the birth rate, the ratio of men and women, and the ratio of urban and rural population as indicators. First, in order to visually and clearly observe the overall trend of changes in these three indicators before and after the introduction of the second-child policy, find out relevant data from the National Statistical Yearbook, plot their values and numerical change rates, and briefly analyze the second-child policy according to the trend of the graph Influence on each index, draw intuitive qualitative conclusions. Then, for the degree of dispersion of the specific observation data, the variance is calculated for quantitative analysis, and 2010-2014 and 2013-2017 are selected as two small samples to solve, and the quantitative analysis is obtained by comparison and analysis.

2.1 Qualitative Analysis

Considering the promulgation of the Family Planning Law in 2002 and the strengthening of national supervision, the data after 2002 were selected for analysis. The data on the birth rate, the proportion of male population and the proportion of urban population from 2002 to 2017 were obtained from national statistical maps, as follows: [1]

Table 1. Value of each indicator

Years	2002	2003	2004	2005	2006	2007	2008	2009
Birth rate(%)	12.86	12.41	12.29	12.40	12.09	12.10	12.14	11.95
male(%)	51.47	51.50	51.52	51.53	51.52	51.50	51.47	51.44
Proportion of urban population(%)	39.09	40.53	41.76	42.99	44.34	45.89	46.99	48.34
years	2010	2011	2012	2013	2014	2015	2016	2017
Birth rate(%)	11.90	11.93	12.10	12.08	12.37	12.07	12.95	12.43
male(%)	51.27	51.26	51.25	51.24	51.23	51.22	51.21	51.17
Proportion of urban population(%)	49.95	51.27	52.57	53.73	54.77	56.10	57.35	58.52

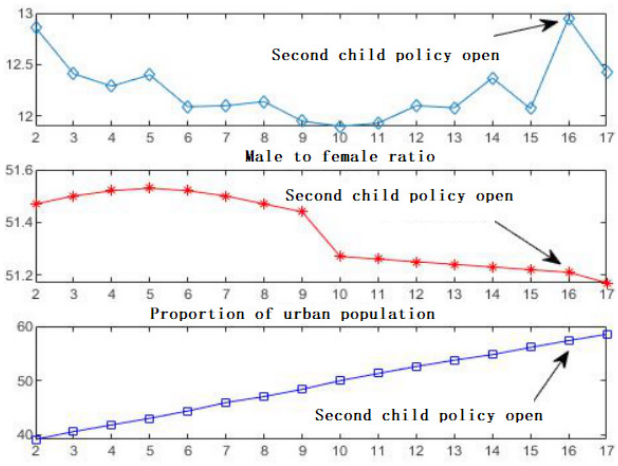

Figure 1. Overall trend of each indicator

According to Figure 1, from the overall trend of data changes, we can observe that the birth rate fluctuated between 2002 and 2015, and the overall trend was relatively stable. However, after the implementation of the second child policy in 2016, the birth rate increased significantly and reached a peak. The male to female ratio decreased at a constant rate from 2010 to 2016, but the rate of decline increased in 2017. As for the proportion of the urban population, the overall increase from 2002 to 2017 has been uniform.

2.2 Evaluation of the Effect of the Second Child Policy Based on Analysis of Variance

In order to quantitatively reflect the impact of the second-born child policy on the birth rate, the male-female ratio, and the urban-rural population ratio, it is mainly to analyze the changes in data before and after the policy is introduced, and to observe their degree of dispersion. Variance is introduced in this model, and five years is selected as a small sample for calculation. In order to highlight the impact of the second child policy on the indicators, one of the sample data for comparative analysis should only include the data before the introduction, and the other sample should include the data after the introduction. Therefore, the data of 2010-2014 and 2013-2017 are selected as two samples, and the variance is calculated.

Table 2. Indicator variance

Index / Period	Birth rate(%)	Proportion of male population(%)	Proportion of urban population(%)
2010-2014	0.02052	0.0002	2.971984
2013-2017	0.10272	0.000584	3.322056
Relative change	4.00584	1.92	0.11779

Analysis: The variance of the birth rate from 2013 to 2017 is significantly different from that of 2010 to 2014, and the relative change is about 4 times, reflecting the large degree of dispersion in the birth rate data from 13 to 17 years. The birth rate of 15 to 17 years after the introduction of the policy is significant. The change indicates that the birth of the second child policy has a significant impact on the birth rate. The variance of male proportion in 13-17 years also changed to a certain extent compared to 10-14 years, the degree of change was 1.92 times, which also shows that the introduction of the second child policy also has a certain impact on the ratio of men and women. The difference in the proportion of the urban population between the two samples is small, indicating that the relative dispersion of the data is small, and within

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the normal fluctuation range, it can be regarded as having almost no impact.

3. Long-term Effect Evaluation of the Second Child Policy

In order to predict the changes in the number and structure of China's population in 2035 or 2050, a PDE model was first established. Based on the data known in the statistical yearbook, a gray prediction model was used to predict the population and the number of women in all ages. Impact of population size. Then establish a differential equation to predict the number of the elderly population from 2035 to 2050, and analyze the future ageing degree. Finally, the impact of changes in the population structure on the national economy is analyzed, and multiple regression equations are established for analysis by selecting the ratio of men and women, the labor force, the ratio of urban and rural population, and the number of college graduates as indicators.

3.1 PDE Forecast Population

Set fertility rate before second child policy A_{bt} , After the implementation of the second child policy, the fertility rate will change accordingly. If the change is expressed by an adjustment factor, the current fertility rate: [2]

$$A_{at} = A_{bt} \times I_t = A_{nbt1} \times 2 + \sum_{i=2}^{10} A_{nbti}$$

The total population in year t can be obtained from the population in year (t-1) + the number of newborns-the number of deaths in (t-1) years. The number of newborns is related to the fertility rate, assuming that 15-49 women are fertile The expression for the life cycle of this model is:

$$P_t = P_{t-1} + P_{bt} - P_{dt} = P_{t-1} - P_{dt} + \sum_{n=15}^{49} [P_{n(t-1)} \times R_{n(t-1)} A_{nt}]$$

Through the adjustment of related parameters, the population expression after the implementation of the second child policy can be obtained:

$$P_t = \sum_{n=15}^{49} \left[P_{n(t-1)} \times R_{n(t-1)} \left(A_{nbt1} \times 2 + A_{nbti} \right) \right] + P_{t-1} - P_{dt}$$

Query the total population, mortality, and number of females of all ages through the statistical yearbook, and use the gray prediction data to formulate.: [4]

Table 3. Forecasted population

Years	2018	2019	2020	2021	2022	2023
Number of people (10,000)	140155	140939	141732	142535	143346	144168
Years	2024	2025	2026	2027	2028	2029
Number of people (10,000)	144998	145838	146687	147546	148415	149294
Years	2030	2031	2032	2033	2034	2035
Number of people (10,000)	150183	151029	151909	152794	153684	154579

According to the data in the table, the second child policy has significantly promoted the growth of the population.

3.2 Prediction of the Elderly Population based on Differential Equations

To predict the degree of aging in the future, the number of aging populations should be predicted first. Since the second-child policy was implemented in 2015, the number of elderly people will not be affected by the second-child policy by 2035 or 2050. Therefore, it is not necessary to consider the second child policy when predicting the number of elderly people. Find out the number of people over the age of 65 from the statistical yearbook, treat it as the number of elderly people, and build a differential equation to predict.

Step1. The establishment of differential equations

Assume that the net growth rate of the elderly is a constant. Based on the population data from 2002 to 2015, and build a population index growth model, there is an equation

$$\begin{cases} \dfrac{dx}{dt} = rx \\ x(0) = x_0 \end{cases} \quad (1)$$

Solutions have to:

$$x(t) = x_0 e^{rt} \quad (2)$$

(2) indicates that the population will grow infinitely over time according to the exponential law, which is called an exponential growth model. But in the long run, the population cannot grow indefinitely, that is, the exponential model cannot describe or predict the evolution of the population over a long period of time.The population growth rate r decreases as the population x increases, and r is represented as a function r (x) of x and is a decreasing function. So (1) is written as:

$$\begin{cases} \dfrac{dx}{dt} = r(x)x \\ x(0) = x_0 \end{cases} \quad (3)$$

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Let r (x) be a linear function of x,

$$r(x) = r - ax(r, a > 0) \qquad (4)$$

r represents the growth rate when the population is small and is called the inher growth rate. And when time tends to infinity and the population x reaches the maximum value xm, the growth rate r (xm) = 0, which can be solved in equation (4) to get a = r / xm, so r (x) = r (1-x / xm), substituting r (x) into equation

$$\begin{cases} \frac{dx}{dt} = rx(1 - \frac{x}{x_m}) \\ x(0) = x_0 \end{cases} \qquad (5)$$

Among them, rx is the inherent growth trend of the population, and (1-x / xm) is the external retarding effect on population growth. Equation (5) is called a retarded growth model, and the solution to equation (5) is obtained by using the separation variable method as [5]:

$$x(t) = \frac{x_m}{1 + (\frac{x_m}{x_0} - 1)e^{-rt}} \qquad (6)$$

当 when $t \to \infty, e^{-rt} \to 0, 1 + (\frac{x_m}{x_0} - 1)\ e^{-rt} \to 1$, 所because以 $\lim_{t \to \infty} x(t) = x_m$.

Step 2. Model solving and prediction

The number of aging population from 2002 to 2015 is summarized as follows:

Table 4. Number of elderly people

Years	2002	2003	2004	2005	2006	2007	2008
People	9377	9692	9857	10055	10419	10636	10956
Years	2009	2010	2011	2012	2013	2014	2015
People	11307	11894	12288	12714	13161	13755	14386

Estimate the parameters r and x_0 in the model, take the logarithm of Equation (2), and get:

$$y = rt + s, y = \ln x, s = \ln x_0 \qquad (7)$$

Based on the data from 2002 to 2015, fitting the formula (7) to the data, the solution obtained is r = 0.03264, s = 9.093, and s = lnx0.

So there are prediction formulas:

$$x(t) = 8892.8245e^{0.03264t} \qquad (8)$$

Note: Consider 2002 as t = 1, and t is incremented by one for every year thereafter. For 2015, t = 14.

The number of elderly people in the country from 2035 to 2050 predicted by the above equation is as follows:

Table 5. Predicted number of elderly population

Years	2035	2036	2037	2038	2039	2040	2041	2042
Number of people (10,000)	26978	27873	28797	29753	30740	31760	32814	33902
Years	2043	2044	2045	2046	2047	2048	2049	2050
Number of people (10,000)	35027	36189	37390	38631	39912	41237	42605	44018

4. National Economic Analysis Based on Multiple Regression

Analyze the impact of changes in population size and structure on the national economy. The structure is roughly divided into gender structure, age structure, urban and rural structure, etc. Several factors affecting the development of the national economy are selected as independent variables: male and female ratio, labor force population, urban and rural population ratio, Number of college graduates. Due to multiple factors, a multiple regression equation was established for analysis.[6]

Step 1.Remember the GDP

Male population share is x_1, Urban population share is x_2, Number of working population is x_3, Number of college graduates is x_4. For rough analysis y and x_1,x_2, x_3x-$_4$,First use the data to make separately y,x_1,x_2, x_3x_4 Scatter plot, as follows:

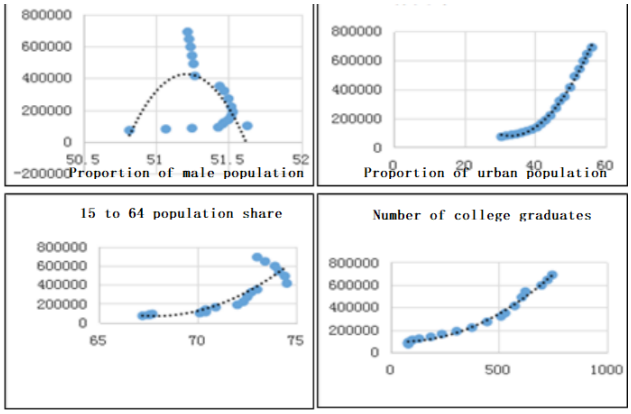

Figure 2. Scatter plot

It can be found from the figure x_1 increase, y There is a tendency to reduce downward bending, Select multiple fitting methods, When fitting a quadratic polynomial maximum, That is, the fitting is the best, so the quadratic polynomial fitting form is selected.

Similarly, x_2, x_3, x_4 Also select the best fitting quadratic polynomial fit. The curve model in the figure:

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$$\begin{cases} y = \beta_0 + \beta_1 x_1 + \beta_2 x_1^{\ 2} + \varepsilon \\ y = \beta_0 + \beta_3 x_2 + \beta_4 x_2^{\ 2} + \varepsilon \\ y = \beta_0 + \beta_5 x_3 + \beta_6 x_3^{\ 2} + \varepsilon \\ y = \beta_0 + \beta_7 x_4 + \beta_8 x_4^{\ 2} + \varepsilon \end{cases}$$

Based on the above analysis, the following regression model is established:

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_1^{\ 2} + \beta_3 x_2 + \beta_4 x_2^{\ 2} + \beta_5 x_3 + \beta_6 x_3^{\ 2} + \beta_7 x_4 + \beta_8 x_4^{\ 2} + \varepsilon$$

The MATLAB statistical toolbox can be used to obtain the regression coefficient prediction value and confidence interval (confidence level α = 0.05), test statistics R^2, F, p .The results are shown in the table:

Table 6. Parameter values

parameter	Parameter estimates	Parameter confidence interval
β0	-85933361.07	[-530644407,358777684]
β1	3597195.167	[-13484200,20678590]
β2	-34846.63792	[-201370,131677]
β3	-61155.99952	[-110480,-11832]
β4	939.0523233	[365,1513]
β5	-168430.1336	[-470706,133846]
β6	1221.789891	[-837,3317]
β7	-195.632675	[-486,95]
β8	0.375699668	[0,1]
R2=0.9991 F=1456.3333. p=1.5801E-18		

Analyzing the data in the graph can see the parameters $\beta_0, \beta_1, \beta_2, \beta_5, \beta_6$ The confidence intervals all contain zeros, so this model is not reasonable.

Step 2. Use stepwise regression [7]

A regression model was selected from the four independent variables that had a significant effect on the dependent variable y. Use the stepwise command in the MATLAB statistics toolbox to list the statistics:

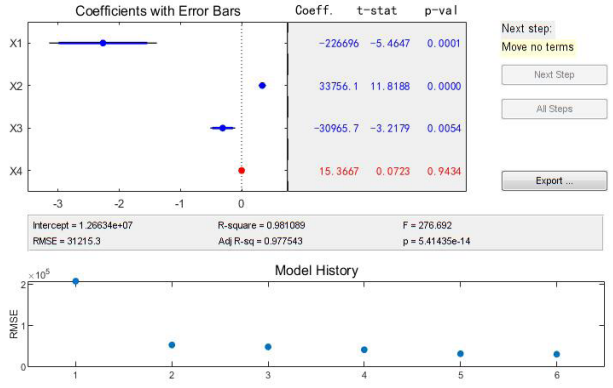

Figure 3. Statistical table

It can be seen, β_5, β_6 The residual standard deviation (RMSE) is very small, close to zero. So that individual data does not affect the entire model,Abnormal indicators x_4 Cull. Re-estimate the regression coefficient estimates and their confidence intervals for the model (confidence level α = 0.05). The data obtained are as follows:

Table 7. Improved model parameter values

parameter	Parameter estimates	Parameter confidence interval
β0	-235482053	[-352936785,-118027320]
β1	9374181	[4853357,13895005]
β2	-90899	[-135048,-46751]
β3	-95451	[-102377,-88526]
β4	1356	[1284,1427]
β5	-131628	[-216571,-46685]
β6	978	[387,1569]
R2=0.9988 F=1801.9085 p=3.31E-18		

Analysis: According to the data in Table 7, 99.88% of the dependent variable y can be determined by this model (R^2 =0.9988) , F far exceeds the critical value of F test, and p is much smaller than α, so the improved model is available. The parameter values in Table 7 are compared with those in Table 6. The improved model F significantly increases and α decreases significantly, indicating that the regression effect of this model is better.

The correlation equation between the national economy y and each indicator x can be expressed as:

$$y = -235482053 + 9374181x_1 - 90899x_1^{\ 2} - 95451x_2 + 1356x_2^{\ 2} - 131628x_3 + 978x_3^{\ 2}$$

Step 3. Model test

The model does not consider that the data is a time series. Due to the regression analysis of the time series data, the model's random error term ε_t May be relevant, So it 's D-W test. [8]

First according to $e_t = y_t - \hat{y}_t$ false Calculating residuals, Then calculate the DW statistics based on the residuals as follows:

$$DW = \frac{\sum_{t=2}^{n} (e_t - e_{t-1})^2}{\sum_{t=2}^{n} e_t^{\ 2}}$$

According to the calculation, the DW value of this model is 1.8848. According to the sample size and the number of regression variables, check the DW distribution

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table. ε_t There is no autocorrelation,Therefore, the above regression equation is reasonable. The regression equation can reflect the impact of various indicators on the national economy.

5. The Number of Men and Women

In this model, all live-born babies born in a certain year are regarded as the same group of people, and it is regarded as a major factor in the study. Combined with the method of population change, it is inferred that the same group of people has changed over the past 20 years. What will happen to the sex ratio of the marriageable population?

If the marriageable population in 2020 is predicted, the total number of newborns in each year from 1986 to 2000 is calculated. In order to obtain the difference in the number of men and women in the marriageable population, we can calculate the number of male and female births and the number of births each year, and obtain the number of boys and girls born each year. Taken together, you can get the difference in the number of men and women in the marriageable population in a year.

According to the number of newborns from 1986 to 2017 and the proportion of male and female newborns in the corresponding year, the number of new males and females in the corresponding year can be calculated, and their number difference is obtained. The difference in the number of newborn men and women from 2003 to 2017 was calculated. Correspondingly, we can get the difference in the number of men and women in the marriageable population in 2020, 2021, ..., 2037.

$$\sum_{i=t}^{t+14} Q_{ni} - Q_{vi}, t = 1,2,...,18$$

t is equal to 1, corresponding to 1986, corresponding t = 18 to 2003, Qni represents the number of new boys in the i-th year and Qvi represents the number of new girls in the i-th year.

The following is the difference in the number of men and women in the marriageable population between 2020 and 2037.

Table 8. Gender difference in marriageable population

Years	2020	2022	2023	2025	2026	2028
Quantity difference	2352.020432	2353.159456	2385.520709	2383.694522	2355.715401	2369.388488
Years	2029	2031	2031	2034	2035	2037
Quantity difference	2350.293953	2270.145631	2219.259527	2094.805691	2038.870838	1971.152388

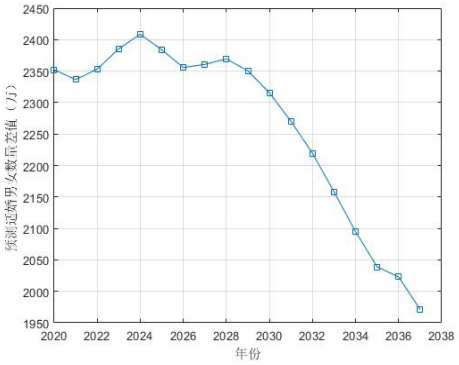

Figure 4. Curve of quantity difference

According to the chart, the year with the largest difference in the number of men and women in the marriageable population appears in 2024, with a difference of 2408.563753 million, and then there has been a downward trend. Therefore, we can preliminary judge that the "China's marriageable population will appear in the future 30 million to 40 million bachelors", with the change of people's conception of fertility and the opening of policies, the ratio of male and female newborn babies gradually approaches 1:1, which is conducive to alleviating the population problem of imbalance between male and female.

References

[1] China Statistical Yearbook.

[2] Jingyan Lv. The impact of the comprehensive second child policy on China's population structure [A]. Jingchu Academic 2017, 7 (Fifteenth in total)[C]. Returning Intelligence(Wuhan)Strategic Investment Management Co., Ltd., 2017: 9.

[3] Xingyu Mao. A Study of the Population Structure Before and After the Comprehensive Second Child Policy[J]. China High-tech Zone, 2018 (13): 278.

[4] Zhizheng Zhang. Prediction model of population structure before and after comprehensive second child policy[J]. China High-tech Zone, 2018 (03).

[5] Qiyuan Jiang, Jinxing Xie, Jun Ye. Mathematical Model(Fourth Edition)[M]. Beijing: Higher Education Press, 2011.

[6] A rongGaowa. Estimation of passenger flow in A-level scenic spots in Inner Mongolia--5 single factor analysis of variance and multiple regression modeling[J]. Arid Land Resources and Environment, 2019 (12).

[7] Zhengjiang Chen. A Comparative Study of Multiple Linear Regression and Stepwise Regression Analysis[J]. Journal of Mudanjiang College of Education, 2016 (05).

[8] Shoukui Si, Zhaoliang Sun. Mathematical Modeling Algorithms and Applications[M]. Second Edition. National Defense Industry Press, 2015.04.

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ARTICLE

Medical Tourism Market and Inter-Stakeholders' Relations in Turkey: A Comparative Investigation From Reverse Innovation and Destination Governance Viewpoint

Dorian Aliu[1*] Hakki Cilginoglu[2] Armando Aliu[3,4]

1. Institute of Social Sciences, Department of Business Administration, Canakkale Onsekiz Mart University, Canakkale, Turkey
2. Faculty of Tourism, Kastamonu University, Kastamonu, Turkey
3. Centre for the Study of Global Human Movement, Institute of Criminology, University of Cambridge, Cambridge, UK
4. Faculty of Law, Hasan Kalyoncu University, Gaziantep, Turkey

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ABSTRACT

This study aims to analyze inter-stakeholders' interactions, destination governance, reverse innovation and the tasks of central government within the Turkish medical tourism market. The investigation's objective is to shed light on scientists and practitioners regarding to what extent medical tourism is affected by stakeholders. Likewise, the originality of this investigation is that this study is the first attempt that links up reverse innovation and stakeholder approach as a holistic strategy and competitive advantage tool in medical tourism. The statistical evidences of Turkey also support the fact that the incline of medical tourism incomes and benefits is tightly bound on key inter-stakeholders' collaborations, marketing tools, specific strategies, effective governance mechanism and cooperation with civil society organizations. This study is a thematic case that comprises particular research fields and formulates advanced arguments that are embedded in enriched relevant literature review and the highlights of the 7th International Health Tourism Congress.

JEL Code: F63, H51, I11, I15, I18, M38

1. Introduction

In recent years, international patients' mobility across national borders has become a contextualized phenomenon [8]. It is worth noting here that there are many exaggerated estimated numbers and confusing descriptions in health and medical tourism research disciplines [10,11,13,20,21,27,28,37,38]. Thus, the question "how can a country be considered as successful in medical tourism if the statistical data of global medical tourism are not exact?" ought to be considered, critically. It is assumed that some scientists are exaggerating the total numbers of medical tourists, deliberately. Undoubtedly, many social scientists are conscious of the fact that these kinds of attempts are very much market-oriented and aim to speculate for attracting investments. Probably, these assumptions or allegations can be conceived as extremely serious, both academically and ethically in the professional fields. However, there are concrete strong evidence to support these assertions. For instance, Hall [27] argued similar

**Corresponding Author:*
Dorian Aliu,
Institute of Social Sciences, Department of Business Administration, Canakkale Onsekiz Mart University, Canakkale, Turkey;
Email: dorianaliu@gmail.com

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points by putting forward critical remarks.

As a matter of fact, the competition level in the global medical tourism market is immensely increasing and thus the number of competitors is exceeding, as well. Many states have commenced reflecting their efforts for attracting a considerable number of international patients. Therefore, there is an incline trend in the competitiveness level of medical tourism all around the world.

Global competitiveness in medical tourism covers a complex structure of interactions between different trade and service institutions. In essence, the policy drivers for medical tourism are often derived not so much from health and welfare policy but international trade, commercial partnerships and key stakeholders' collaboration level. Likewise, many governments, international agencies and stakeholders consider medical tourism as a means of economic growth, which might cross-subsidize domestic health access where that is a central governmental objective and ensure a competitive cure for the global health system and the delivery of health services worldwide [27].

In particular, medical tourism is considered as a strategic driving force of the health sector for central governments, national tourism agencies, international cartels, civil society organizations (CSOs), non-governmental organizations (NGOs), global tourism networks, health/tourism associations and so on. For this reason, the study raised some inquiries which are specified as below:

(1) Why medical tourism has become so crucial for health tourism stakeholders irrespective of being a public institution, private institution and/or civil society organization?

(2) Has the central government a significant role at strengthening and networking stakeholder relations in Turkish medical tourism market?

(3) Can reverse innovation be a competitive advantage tool and holistic strategy for the Turkish medical tourism market?

In recent years, a striking rapid-growth has been occurred in Turkish medical tourism market. Medical tourism has become important for many reasons in Turkey. These reasons that gave impetus to this instantaneous growth can be listed as such [7,12,51,56]:

(1) Disappointments with medical treatments in neighbour countries and the lack of access to healthcare at reasonable cost and in reasonable time;

(2) Inadequate insurance and income to pay for local healthcare and the rise of high-quality medical care in "developing" countries;

(3) Uneven legal and ethical responses to complex health issues, greater mobility, and a growing demand for cosmetic surgery;

(4) Substantial role and crucial competency of the Republic of Turkey Ministry of Health (RTMH) for organizing stakeholders' collaborations in medical tourism and the representation of miscellaneous stakeholders' interests in Health Tourism Business Council (SAIK) platform;

(5) Shorter waiting period, various legal regulations, state's support and a high number of Joint Commission International (JCI) accredited medical organizations;

(6) Strategic location, high-quality and inexpensive healthcare services, good climate, qualified manpower and high technology, traditional Turkish hospitality and the direct flights to the airports of cosmopolite cities (e.g. Istanbul, Antalya and so on);

(7) A wide range of tourism opportunities (e.g. cultural tourism, religious tourism, marine tourism, nature tourism, health and SPA tourism and so on) that may have a positive effect on the demand for medical services;

(8) Improvement of education in the health research field, the incline of the number of foreign students in Turkey, the enrichment of communication and media channels and the transfer of know-how and information technologies in medical tourism;

(9) Enhancement of the image and reputation of Turkey in the tourism sector; the support of the Republic of Turkey Ministry of Economic Affairs to health services exports (e.g. research endorsement, opening representative offices abroad and promotion support etc.) and the preference of Turkish migrants and/or citizens living abroad for getting medical treatment in Turkey;

(10) In this regard, many other reasons can be counted and these raise the issue of miscellaneous stakeholders' interactions and convergence of the interests of various stakeholders in the Turkish medical tourism market.

One of the most substantial impact factors at balancing stakeholders' relations and interests is the efficient role of the central government for coordinating, organizing, strengthening, legitimating and networking stakeholder relations in the Turkish medical tourism market. In this context, this investigation proposes reverse innovation as a competitive advantage tool and holistic strategy in Turkish medical tourism market. Reverse innovation may enable and facilitate the effective and productive collaboration among stakeholders. This stark collaboration will not only provide a competitive advantage to Turkey for competing with the strongest rivals in global medical tourism competition, but also will reinforce the aggregate beneficiary, image, reputation, added value and tourism earnings in Turkish medical tourism market. In this framework, this study does not cover global medical tourism market indicators of some international institutions; such as, Deloitte,

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McKinsey and so on. Instead of these data, the study takes into account governmental (i.e. the RTMH) statistical datasets of 2013-2014 in medical tourism and tourists' health categories.

2. Methodology

The study introduces unpublished medical tourism datasets of 2013-2014 that were comparatively produced by the RTMH. In this respect, some categorical distinctions (i.e. medical tourism, tourists' health, hospital types etc.) have been made for using and applying datasets, properly. One may have doubts as to the validity of the analyses of 2013-2014 datasets if only two-year statistics were checked within the confine of the research. However, the research elaborates not merely on two-year statistical data but also discussions are made by taking into account 2008-2014 datasets of the RTMH.

The acquisition of the statistical datasets from the RTMH Directorate of Health Tourism was made through contacting by a petition letter and e-mail. The permission has been granted by the RTMH for publishing the data. All datasets of 2013-2014 were received in Turkish. The translation and general remarks of the datasets were done by the authors. In this context, the authors highlighted the rapid developments in the Turkish medical tourism market according to these datasets.

Likewise, the authors developed a proceeding for the 7th International Health Tourism Congress, an international congress which is organized every year by the Health Tourism Association of Turkey (Official Website: http://internationalhealthtourismcongress.org/). This study covers some updated information regarding medical tourism; such as, congress notes, exhibition observations, workshops, business to business experiences, discussion sessions and so on. Thus, both the inter-relating the statistical data with the recent debates and using a literature-based content analysis ensure a base for argumentation of the nexuses among medical tourism, reverse innovation, stakeholder approach and collaboration in destination governance.

The study engaged a case study method that is a research strategy that analyzes a sophisticated phenomenon in its real-life context when the boundaries among the phenomenon and context are not evident; and in which multiple sources of evidence are used [2,55]. Case study research enabled us to justify the aforementioned research questions and structure the practice-oriented aspects of medical tourism in Turkey through combining collaboration and stakeholder approach in destination governance. Case study can demonstrably exhibit coherence (i.e. consistency, synchronism, logic, and being all of a piece) dependability and confirmability [25]. In a sense, a case study is never finished; it is merely due [26]. A case study research reflects the multiple realities constructed by the respondents in the inquiry; illuminates in what directions it has taken account of the reciprocal forming of phenomenal components in that site; rejects generalizability and the drawing of nomothetic consequences; takes into consideration the value effects; impinges on the inquiry, comprising the values that dictated the preference of an issue, the values that impelled the preference of theoretical argumentation or context [36]. In other words, a case study research is associated with theoretical structuring and it is based on the requirement to conceive a real-life phenomenon with investigators gaining new holistic and in-depth insights, clarifications and remarks regarding to formerly uncertain rich experiences of practitioners that might stem from creative exploration and the design of the investigation [43].

In the light of these considerations, this study is a thematic case that comprises particular research fields (i.e. medical tourism, collaboration and stakeholder approach, destination governance and reverse innovation) and formulates advanced arguments that are embedded in enriched relevant literature review and aforementioned event's outcomes. Therefore, the observations that were experienced in the event which attained an outstanding accomplishment were adjusted with the general research questions that were posed in this study.

On the one side, the authors attempted to clarify the similarities, differences and overlapping aspects of the empirical data of the Turkish medical tourism market. On the other side, the authors utilized content analysis of four notions (i.e. medical tourism, reverse innovation, stakeholder approach and collaboration in destination governance). Content analysis was applied to the research through using some quotations from written texts and documents, oral presentations and participants' speeches in the aforementioned congress.

3. Results and Discussions

3.1 Turkish Medical Tourism Market in a Comparative Perspective

According to a Foreign Economic Relations Board (DEIK) report, the key competitive advantages of Turkey can be listed as follows:

(1) a very high accomplishment level in treatments;

(2) a high number of JCI accredited health institutions;

(3) the opportunity of getting the health services in a short time and many other medical tourism determinants and impact factors facilitate obtaining high quality medi-

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cal services in Turkey.

Thus, Turkey is affected by legal regulations in the medical tourism sector, well-structured Foreign Patient Registration System (YHKS) database, political climate, economic conjuncture, medical costs, experiences of doctors, quality of treatments, international accreditations of health institutions. The strongest rivals of Turkey in medical tourism in South and East Asia are India, Thailand, Malaysia and Singapore. Likewise, Czech Republic, Hungaria, Romania and Croatia are likely to be considered as Turkey's rivals in Eastern Europe. Comparing with these countries, Turkey has convenient medical costs, medical service duration and easily accessible transportation advantages. Further, Turkey has around 60 percent successful treatment levels at "In Vitro Fertilization" (IVF) medical interventions; whereas the EU has an approximate average of 26 percent [30].

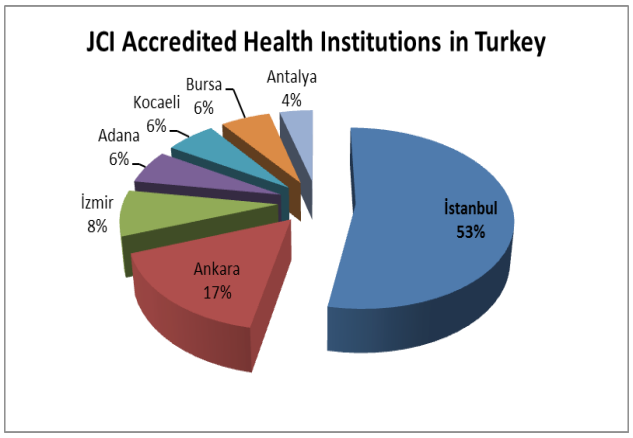

Figure 1. Percentage of the JCI Accredited Health Institutions by Cities in Turkey

Source: Joint commission international, 2016 [33].

Turkey has a great advantage of accredited hospitals to the JCI Accreditation Body. The total number of health institutions that are accredited to the JCI Accreditation Body is 49 and over half (53%) of them are situated in Istanbul (26 health institutions) (see Figure 1). Other health institutions that are accredited to the JCI Accreditation Body can be listed respectively as such: Ankara (8 health institutions), Izmir (4 health institutions), Kocaeli (3 health institutions), Adana (3 health institutions), Bursa (3 health institutions) and Antalya (2 health institutions). Turkey's strongest rival countries in terms of the JCI accredited health institutions are listed respectively as such: United Arab Emirates (129 health institutions), Saudi Arabia (94 health institutions), China (55 health institutions) and Thailand (53 health institutions). Other countries that have the JCI accredited health institutions are far below of Turkey in the JCI accredited health organizations ranking list [33].

At a SAIK meeting, Mr. Rifat Hisarciklioglu stated that "Turkey intends to attract around 500.000 patients and generate $10 billion inhealth expenditure by 2020 [49]." Supporting Mr. Hisarciklioglu, according to the Association of Turkish Travel Agencies (TURSAB), Turkey is approximately 60 percent cheaper than EU member states in the medical tourism sector. For example, a bypass heart surgery costs between $39.000 - $43.000 in Spain; whereas, in Turkey it costs among $8.500 - $21.000. Similarly, in Germany, a spinal fusion surgery costs about $29.000; whereas, in Turkey it costs $7.000. The target of Turkey is to attract 2 million international patients and earn $20-25 billion by 2023 in health tourism [51].

According to TURSAB, the total health tourism income in 2013 was $2.5 billion and comparing to total tourism income (i.e. $32.3 billion) in the same year in Turkey, health tourism corresponds to 7.74 percent in the total tourism market in Turkey. Thus, it was strongly emphasized that the percentage of health tourism income in total tourism market income ought to be over 20 percent to better compete with the strongest rivals of Turkey [51]. Further, an action plan regarding the development program of health tourism covers the objectives; such as, putting Turkey in the top 5 medical tourism destinations in the world, attracting around 750.000 international patients to Turkey by 2018, and gaining approximately $5.6 billion medical tourism income. The action plan announced the medical tourism determinants; such as, developing institutional and legal infrastructure of medical tourism; improving the physical and technical infrastructure of medical tourism; increasing service quality in medical tourism; and extending international collaboration, marketing and active promotion in medical tourism [48].

3.2 The Comparison of the RTMH Statistical Datasets of 2013-2014

The statistical datasets of the RTMH have reliability and validity in terms of risks of statistical analyses. The RTMH datasets of 2013-2014 vary in terms of used methodology and statistical tools. The two recent published reports of the RTMH [7,36,34] underlined the fact that there has been a significant classification of the types of hospitals and international patients. For instance, patients' dispersion rates were calculated according to 4 hospital categories (i.e. state hospital, private hospital, university hospital and training and practice hospital). Furthermore, the data of international patients were gathered in the context of two categories (i.e. medical tourism and tourists' health).

In essence, medical tourism is the concept of traveling to receive healthcare. It was expressed that medical tourism is traveling to a foreign land that is abroad, cross-border and out of jurisdiction travel [38]. Medical tourism as a

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niche has striking rapid growth of what has become a sector where patients travel often long distances to overseas countries to obtain medical, dental and surgical care while simultaneously being holidaymakers [11]. Sometimes medical tourism involves patients who are paying their own costs for services illegal in the patient's home country [10]. Recently, another conceptualization in health tourism is transnational healthcare. "Transnational healthcare is a combination of both the consumer of medical tourism and the citizen of healthcare systems to more easily recognize the emerging set of transnational structures and networks that seek to serve all patients. Also, transnational healthcare can be conceived as a mature global patient mobility framework that builds on a logic of transnational health regions (regional development as a vehicle for patient mobility), transnational organizations (such as hospital chains and insurance schemes) and sustainable health destination management (government steering of the development of patient mobility)" [8].

According to the RTMH, tourists' health refers to the persons who are involved in tourism activities for a purpose other than health and then benefit from healthcare services; such as, medical interventions, emergency and unpredicted situations [34]. In Turkey, the patients coming from countries having an agreement with the Social Security Institution (SGK) are included in a distinct category that covers only the healthcare services for the citizens of the country having the right to receive healthcare services under the agreements which were signed by the SGK. The patients coming from countries having bilateral agreements on health are considered as a separate category that comprises merely the bilateral agreements on health which were signed between the RTMH and various countries, as well. These patients are sent to public or university hospitals by an official letter from the General Directorate. According to the RTMH, tourists' health is a concept that differs from medical tourism and it refers to people who are involved in tourism activities for a purpose other than health and then benefit from healthcare services; such as, medical interventions, emergency and/or unpredicted situations [34].

The RTMH datasets of 2013-2014 indicate the fact that there is a quite high incline at the total percentage of the top 10 private hospitals to which international patients most apply in frame of medical tourism and tourists' health. This rapid increase illustrates that private hospitals (particularly private hospital groups) have domination in the Turkish medical tourism market. Overall, there is a slight decrease in the total number of international patients who apply to the top 10 state hospitals in the frame of medical tourism and tourists' health. University and training and research hospitals have a great potential for attracting more international patients and gaining more earnings in the frame of medical tourism and tourists' health. According to the RTMH datasets of 2013-2014, the numbers of international patients coming to Turkey by months in terms of medical tourism and tourists' health illustrate that May-September period is very much preferable by international patients. In public hospitals, tourism income in frame of medical tourism per patient is $9.000; whereas, in private hospitals an average tourism income in the frame of medical tourism per patient is $12.000. In public hospitals, tourism income in the frame of tourists' health per patient is $2.000; whereas, in private hospitals an average tourism income in the frame of tourists' health per patient is $4.000. It is predicted that Turkey will attract 700.000 international patients by 2017 and 2 million international patients by 2023; gain $8 billion health tourism income by 2017 and $20 billion health tourism income by 2023; doubling the JCI accredited health institutions and increase free healthcare zones from 4 to 10 by 2023 [51].

Table 1. 2013-2014 Indicators of Top 10 Hospitals to Which International Patients Most Apply in Frame of Medical Tourism and Tourists' Health in Turkey

	2013	2014
The total percentage of top 10 private hospitals to which international patients most apply in frame of "*Medical Tourism*"	39.68 %	96 %
The total percentage of top 10 private hospitals to which international patients most apply in frame of "*Tourists' Health*"	45.30 %	92 %
The total number of international patients who apply to top 10 state hospitals in frame of "*Medical Tourism*"	16,476	13,641
The total number of international patients who apply to top 10 state hospitals in frame of "*Tourists' Health*"	14,488	13,799
The total number of international patients who apply to top 10 university hospitals in frame of "*Medical Tourism*"	3,526	7,656
The total number of international patients who apply to top 10 university hospitals in frame of "*Tourists' Health*"	3,122	3,710
The total number of international patients who apply to top 10 training and research hospitals in frame of "*Medical Tourism*"	12,867	16,038
The total number of international patients who apply to top 10 training and research hospitals in frame of "*Tourists' Health*"	13,624	28,708

Source: Republic of Turkey Ministry of Health, 2015 [42].

According to the RTMH datasets of 2013-2014, the comparisons of top 10 cities in terms of international patients' dispersion in frame of medical tourism/tourists' health demonstrate that Istanbul and Ankara have a very central role and importance in development of medical tourism in Turkey. Additionally, the cities like Antalya and Mugla are considered more active and crucial in frame of tourists' health category.

Table 3 illustrates that patients coming from Libya,

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Table 2. 2013-2014 Indicators of Top 10 Cities in Medical Tourism and Tourists' Health in Turkey

Top 10 Cities in Medical Tourism			
2013		**2014**	
Top 10 Cities	Patients Number	Top 10 Cities	Patients Number
1.Istanbul	54,104	1.Istanbul	84,104
2.Ankara	17,861	2.Ankara	26,880
3.Kocaeli	11,666	3.Izmir	21,013
4.Izmir	11,623	4.Batman	13,349
5.Afyonkarahisar	10,421	5.Antalya	7,314
6.Kutahya	9,519	6.Samsun	6,836
7.Antalya	8,368	7.Kocaeli	6,787
8.Samsun	7,104	8.Erzurum	6,627
9.Denizli	4,674	9.Karaman	5,688
10.Batman	4,401	10.Trabzon	4,665
Top 10 Cities in Tourists' Health			
2013		**2014**	
Top 10 Cities	Patients Number	Top 10 Cities	Patients Number
1.Antalya	110,874	1.Antalya	126,104
2.Istanbul	33,562	2.Istanbul	54,888
3.Mugla	14,415	3.Mugla	23,829
4.Izmir	11,823	4.Ankara	10,707
5.Aydin	5,731	5.Izmir	10,560
6.Ankara	5,364	6.Bursa	6,925
7.Bursa	4,611	7.Aydin	5,267
8.Afyonkarahisar	4,369	8.Karaman	4,716
9.Gaziantep	3,621	9.Ordu	2,968
10.Karaman	3,443	10.Gaziantep	2,632

Source: Republic of Turkey Ministry of Health, 2015 [42].

Table 3. 2013-2014 Indicators of the Number of Patients Applying to Private Hospitals

Medical Tourism			
2013		**2014**	
Countries	Patients Number	Countries	Patients Number
1.Libya	20,380	1.Libya	42,450
2.Iraq	19,064	2.Iraq	31,167
3.Germany	18,779	3.Azerbaijan	19,393
4.Azerbaijan	8,564	4.Germany	14,573
5.The Netherlands	4,870	5.The Netherlands	4,718
6.Romania	3,852	6.Russian Federation	3,428
7.Russian Federation	3,288	7.Romania	2,942
8.Bulgaria	3,110	8.Bulgaria	2,930
9.United Kingdom	2,384	9.Turkmenistan	2,660
10.Syria	2,334	10.Syria	2,633
Tourists' Health			
2013		**2014**	
Countries	Patients Number	Countries	Patients Number
1.Syria	938	1.Russian Federation	41,739
2.Iraq	392	2.Germany	41,312
3.Azerbaijan	381	3.United Kingdom	11,501
4.Germany	287	4.The Netherlands	11,167
5.Russian Federation	192	5.Azerbaijan	5,140
6.Afghanistan	100	6.Iraq	4,879
7.The Netherlands	63	7.Sweden	4,475
8.Turkmenistan	57	8.Norway	4,382
9.Bulgaria	52	9.Kazakhstan	3,826
		10.Ukraine	3,599

Source: Republic of Turkey Ministry of Health, 2015 [42].

Iraq, Azerbaijan, Germany and the Netherlands constitute the majority who come to Turkey in the frame of medical tourism. In the tourists' health category, there are many tourists who benefit from healthcare services; such as, medical interventions, emergency and unpredicted situations while they are involved in tourism activities. Tourists coming from the Russian Federation, Germany, the UK, the Netherlands, Azerbaijan, Syria and Iraq can be namely counted in this category.

Table 4 indicates the number of patients applying to state hospitals in terms of their citizenship and/or country of origin. In the medical tourism category, Germans, Dutches and Turkish migrants who have German and Dutch citizenship (or dual citizenship) constitute the majority number of patients who mostly prefer to come to Turkey. Similarly, almost each year over 10.000 Germans are treated in frame of tourists' health category in Turkey. As a cause of the Syrian War, Syrians (except migrants and refugees in Turkey) are entering to Turkey with a valid tourist visa and then benefit from medical services. However, the Syrian migrants and refugees living in Turkey are categorized as patients in the frame of medical tourism. The citizens of the EU member states have some advantages because Turkey signed bilateral agreements on health with these states.

Since 2013, the patients coming from states having bilateral agreements and agreements with the Social Security Institution (SGK) are considered as separate categories that comprise merely the bilateral agreements on health which were signed between the RTMH, various countries and the SGK [34].

According to the RTMH 2013-2014 indicators of the number of patients applying to university hospitals, patients coming from Germany, Azerbaijan, Iraq and Syria consider university hospitals in Turkey very preferable and convenient in terms of price and quality.

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Table 4. 2013-2014 Indicators of the Number of Patients Applying to State Hospitals

Medical Tourism			
2013		**2014**	
Countries	Patients Number	Countries	Patients Number
1.Germany	23,492	1.Germany	15,012
2.The Netherlands	2,855	2.The Netherlands	5,359
3.France	2,113	3.Belgium	1,350
4.Austria	1,998	4.Austria	1,324
5.Belgium	1,700	5.Syria	1,265
6.Afghanistan	512	6.France	1,152
7.Turk and Caicos Islands	319	7.Afghanistan	223
8.Syria	273	8.TRNC*	173
9.Azerbaijan	202	9.Azerbaijan	117
10.Iraq	145	10.Georgia	98
Tourists' Health			
2013		**2014**	
Countries	Patients Number	Countries	Patients Number
1.Germany	15,703	1.Germany	11,519
2.Syria	6,466	2.United Kingdom	2,883
3.United Kingdom	2,330	3.The Netherlands	2,561
4.Georgia	2,227	4.Syria	2,522
5.The Netherlands	2,196	5.Georgia	2,107
6.Azerbaijan	1,754	6.Azerbaijan	2,060
7.Afghanistan	1,573	7.Russian Federation	2,010
8.France	1,475	8.Iraq	1,259
9.Belgium	1,442	9.France	1,222
10.Russian Federation	1,338	10.Afghanistan	1,047

Source: Republic of Turkey Ministry of Health, 2015 [42].

* Turkish Republic of Northern Cyprus.

Table 6 shows the 2013-2014 indicators of the number of patients applying to training and research hospitals. According to the table, patients coming from Germany, Syria, Azerbaijan and the Netherlands visit Turkey with the purpose of medical tourism. On the other side, tourists coming from Germany, the Russian Federation, the Netherlands, Syria and Azerbaijan are the patients who benefit from healthcare services in the frame of tourists' health category. According to Daily Sabah and Anadolu Agency, the number of Russian tourists traveling to Turkey decreased 46.86 percent at the end of 2015 due to the conflict which arose between Turkey and Russia [15]. Visa liberalization talks between Turkey and the EU can positively contribute to the negative influence of Russian tourists on the Turkish tourism market by attracting more European tourists [4]. Particularly, the tourists coming from

Table 5. 2013-2014 Indicators of the Number of Patients Applying to University Hospitals

Medical Tourism			
2013		**2014**	
Countries	Patients Number	Countries	Patients Number
1.Germany	1,603	1.Germany	3,113
2.Azerbaijan	487	2.Iraq	949
3.Iraq	304	3.The Netherlands	791
4.Georgia	152	4.Azerbaijan	591
5.Afghanistan	136	5.Austria	349
6.The Netherlands	122	6.Afghanistan	249
7.Bulgaria	93	7.Belgium	245
8.Greece	76	8.Georgia	220
9.Turkmenistan	66	9.Syria	189
		10.TRNC	170
Tourists' Health			
2013		**2014**	
Countries	Patients Number	Countries	Patients Number
1.Syria	938	1.Germany	945
2.Iraq	392	2.Iraq	727
3.Azerbaijan	381	3.Azerbaijan	650
4.Germany	287	4.Syria	415
5.Russian Federation	192	5.Russian Federation	302
6.Afghanistan	100	6.Afghanistan	176
7.The Netherlands	63	7.Turkmenistan	150
8.Turkmenistan	57	8.Georgia	138
9.Bulgaria	52	9.The Netherlands	116
		10.Kazakhstan	107

Source: Republic of Turkey Ministry of Health, 2015 [42].

Germany are quite important for the sustainable development of the tourism economy in Turkey. Therefore, the Turkish central government, public and private stakeholders in the tourism sector are doing their best for ensuring a more secure and stable environment [16]. Therefore, there has been a shift from the sea, sand and sun (3S) tourism to other kinds of tourism; such as, health and medical tourism, wellness & SPA, cultural and culinary tourism, eco-tourism, sport and adventure tourism, agro-tourism, spiritual and volunteer tourism. In this context, a fragmentation of the tourism sector into various segments has emerged in many developing states. For instance, the central government in Turkey aims to diminish the dependence on 3S tourist profiles and mass tourism by enabling the diversification of tourism market segments.

Overall, there is a huge drop in statistical data of 2014 when these data are compared with the previous year. Therefore, reverse innovation and stakeholders' interac-

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Table 6. 2013-2014 Indicators of the Number of Patients Applying to Training and Research Hospitals

Medical Tourism			
2013		**2014**	
Countries	Patients Number	Countries	Patients Number
1.Germany	8,863	1.Syria	4,767
2.Azerbaijan	1,358	2.Germany	3,892
3.The Netherlands	979	3.Azerbaijan	2,101
4.Afghanistan	614	4.The Netherlands	1,679
5.Syria	581	5.Afghanistan	1,248
6.Iraq	520	6.Austria	1,144
7.Austria	519	7.Iraq	740
8.Turkmenistan	418	8.Turkmenistan	619
9.Georgia	305	9.Georgia	370
		10.Belgium	354
Tourists' Health			
2013		**2014**	
Countries	Patients Number	Countries	Patients Number
1.Germany	38,098	1.Syria	7,653
2.Russian Federation	36,562	2.Azerbaijan	3,300
3.The Netherlands	10,800	3.Iraq	2,995
4.United Kingdom	7,453	4.Turkmenistan	2,371
5.Norway	5,332	5.Afghanistan	2,031
6.Iraq	5,188	6.Georgia	1,777
7.Azerbaijan	4,462	7.Germany	1,758
8.Sweden	4,160	8.Iran	1,416
		9.Uzbekistan	1,230
		10.Russian Federation	868

Source: Republic of Turkey Ministry of Health, 2015 [42].

tions are conceived as two propellant forces for development of medical tourism market in Turkey.

3.3 Reverse Innovation and the Role of Stakeholders in Medical Tourism

Innovation alone starts with local issue specification; whereas, reverse innovation starts with determining common issues. In this context, reverse innovation facilitates the opening of the possibility for new types of cooperation among stakeholders in developing countries [18].

The reverse innovation is tightly associated with Prahalad's "bottom of the pyramid approach." According to Prahalad, the developing states have a very crucial role in global commercial relations through composing around 50 percent of global gross domestic product (GDP) and approximately 40 percent of world exports. Through Prahalad's approach, the globalization paradigm has been transformed and that is the reason why many developing states are targeting the bottom 90 percent of the pyramid [41,46].

In the light of these considerations, reverse innovation is the case where an innovation is initially admitted in a low-income state before being admitted in wealthy states [23]. In other words, comparing with the classical innovation approaches; reverse innovation is applying the contrary (i.e. innovating in low-income states and marketing those products in wealthy states). Yet, 2/3 of the world's expansion in GDP is likely to come from low-income countries, reverse innovation is essential [22]. In emerging markets, reverse innovation is perceived as more than just zero-based innovation. Reverse innovation emphasizes the potential for quite low price-point innovations originating in developing states to give rise to new market demand back in wealthier states. In the medical tourism sector, the portable ultrasound machine might be a good example. The portable ultrasound machine was evolved uniquely by General Electric at the beginning of the 2000s to meet the specific demands of the Chinese medical sector, and the PC-based technology developments. Thenceforth, General Electric has attained a $250 million business opportunity by seeking this kind of application in the US and other developed states [24]. The electrocardiogram (EKG/ECG) machine for rural India and the ultrasound device for rural China are extraordinary cases in the frame of reverse innovation because these machines formerly were evolved for developing states' markets and are currently being marketed in the US [29]. Particularly, these devices are very much preferable in the medical tourism market.

A crucial contribution to medical tourism growth in the frame of reverse innovation is the opportunity of "brain drain" – i.e. the doctors or medical practitioners who have the citizenship of a developing country and provide their experiences, know-how and investments to their countries. The brain drain is a process by which healthcare professionals leave their countries of origin to work in other countries. This is often motivated by higher salaries and better career prospects. All types of health workers migrate and the effect of this migration on the health system can be acute, as many low and middle-income countries suffer significant staff shortages [39].

Citizens of the European countries and the USA have begun traveling to underdeveloped and/or developing countries where a broad spectrum of medical services is provided and advanced technologies are transferred to public and private hospitals in these countries. In this context, reverse innovation has occurred in medical tourism

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particularly in less developed and developing countries. The shift from high-income states to low and medium-income states has caused a significant change in the global medical tourism market. Indisputably, Thailand, Singapore, India, South Korea, Turkey and Malaysia have become the most crucial states for the implementation of reverse innovation approach in the medical tourism market [54].

For effective application of reverse innovation approach, collaboration among stakeholders has a priority because transnational regional networks make collaboration possible between a full range of stakeholders who would gain from better serving local and global patients [8]. In this framework, medical tourism covers a sequence of key stakeholders with trade intentions comprising health care suppliers, insurance companies, website suppliers, brokers, conference and media services [37].

Furthermore, Health Transformation Programme (SDP) in Turkey – the provision of quality and sustainable health services accessible for everyone in an effective, quality and equitable manner – provided that many universities are supporting scientific collaborations and research projects with stakeholders to modernize and improve the health sector as a whole and medical sector in particular [5].

Thus, sustaining economic development and inclusion of civil-civic society and local community into medical tourism collaborations and stakeholders depend on enhancements and enrichments of civil society based projects that are engaged with public and private actors. For instance, a private non-profit university has commenced two very crucial scientific research projects that are entitled "Strengthening the Capacity of Health Tourism in Istanbul: Health is the Target and the Destination is Istanbul" and "Development Campus through Health [32]." These projects are conducted within the framework of "Innovative Istanbul Financial Assistance Programme" of the Istanbul Development Agency (ISTKA). Moreover, these kinds of projects and/or scientific materials are gaining funding, budget allocation and endorsement from the Istanbul Chamber of Commerce (ICC).

Many localities promote tourism business developments. Through utilizing territorial networks, these developments have drawn a great of attention from state sector and private sector organizations that are searching for promotion of local level solidarity where collaborations can also constitute a foundation for the inclusion of civil society organizations and local community [1,9,40].

The public actors are embedded with private, non-profit and civil society/community actors through a combination of "top-down" centralized and bureaucratic approach and "bottom-up" decentralized and inclusive form of multilevel governance [44] in which territorial societies and businesses are fostered to support more communication, liability, cooperation for a better destination governance perspective. Transforming structures of government and a thriving realization of the role of governance has led to interest in mutual social interactions among state sector, private sector and CSOs [1,2]. The inter-organizational networks in destinations and the influences of cooperation between organizations provided stabile conjuncture and some incremental improvements at institution-based platforms. Besides, the shapes of destination governance may cover hierarchical tiers of central government and networks of actors; such as, NGOs, CSOs and businesses. Thus, the participation by miscellaneous actors in tourism decision-making is likely to strengthen the democratic actions and ownership broadly linked to sustainable development [9].

Stakeholders (e.g. hotel and hospitality enterprises, attractions, travel agencies, trade service institutions, governmental authorities, tourist information centers, representatives of civil societies and so on) in multiple levels are to be engaged to cooperative planning, organizational activities, and effective joint interactions [2,6]. This kind of collaboration and communicative social actions can reduce the complexity risks in destination governance through collaborations between key stakeholders located in various networks. This implies that the destination governance is influenced by a limited number of entities and public stakeholders in these inter-organizational destination networks which have the highest centrality and hold the greatest legitimacy and power over others. In this manner, the effectiveness of inter-organizational collaboration is likely to be enriched through intervening to develop stakeholders' communication, allegiance, knowledge management and innovation [2,14].

Of course, an effective consensus-based collaboration level can be maintained by means of structuring formal institutionalized affair among available networks of organizations, interests and public, peripheral, private stakeholders; legitimating group activities for covering stakeholders in decision-making process; and boosting the willingness of collaboration to enhance coordination of policies and activities [17]. However, complexity, conflicts, diverging interests and goals in destination governance can be overcome through considering a destination as an interdependent environment in which a diverse range of stakeholders participate and take responsibility. In this open-social system, spatial reconstructing of destinations, the pluralization of destination management and re-envisioning of local societies [19]. In this manner, consensus-based collaboration may prepare a base for social

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involvement, enhanced legitimacy, community-based tourism enterprises, charitable funds via local community leaders and participation of stakeholders in the frame of ethical awareness and moral obligation [45].

3.4 Arguing the Highlights of the 7th International Health Tourism Congress

3.4.1 The Role of Central Government is Crucial for Organizing Stakeholders' Collaborations in Medical Tourism

The RTMH has a substantial role and crucial competency for organizing stakeholders' collaborations in medical tourism. Destination governance and multilevel governance have significant influences on the enhancement of the medical tourism market in Turkey. The cooperation and solidarity among the state sector, private sector and civil society organizations strengthen the medical tourism governance and ensure a stable development in favor of state and non-state stakeholders' interests and profits. The scope of beneficiaries in the medical tourism market can be expanded by using strategic and communicative actions in stakeholders' relationships and destination governance [2].

3.4.2 High Quality and Accreditations are Vital

Patients cross borders to obtain medical care expect to receive high quality, effective and safe care when they travel abroad for treatment. Medical tourism is one of the major drivers to pursue international accreditation. Other major external drivers for pursuing accreditation of healthcare organizations are political commitment to improve quality and safety and insurance [31].

3.4.3 There is a Significant Role of Transactional Leadership

Transactional leadership behavior of managers played a significant role in the effect of transformational leadership on organizational commitment of employers in health institutions in Turkey. This effect is more significant on contingent reward and active management by exception behavior of the leaders [52].

3.4.4 Overall Evaluations ought to be based on Information-Sharing, Long-Term Vision, Budget Planning, Policy Development and Integrated Legislation

In terms of general oversight, overall evaluations are necessary in Turkey. Information sharing is important and essential. Long-term vision ought to be based on cross analysis. For-profit and non-profit aspects of services should be recognized. General budget planning should include overall perspectives. The future of dynamic sectors will rely on integrated legislations and policies. Careful policy development should be evidence-based. General oversight will serve Turkey's ultimate goal of regional leadership in international health services [50].

3.4.5 Increasing Healthcare Funding is Important for Creating a Stronger Healthcare System

The Chairman of DEIK – SAIK Dr. Rusen Yildirim asserted that "healthcare funding in Turkey has grown significantly over the past decade to reach around TRY 85 billion in 2013 with approximately 22 percent coming from private funding sources." In this framework, the Turkish government is following long-term strategic objective to improve the quality, scale and trustworthiness of the healthcare system. Despite moderate healthcare spend in Turkey relative to the rest of Europe; patients' satisfaction with healthcare provisions is relatively high. Access to private providers plays a strong part in the satisfaction scores, as public provision is considered poor across several key dimensions, including quality. While Turkey is improving the practicing physicians to population ratio, this is still well below the OECD average and remains a key issue for the system. Despite the growth over the last 10 years, Turkey's spending is still relatively low with significant growth potential and ambitious future targets by the government. Hospital care consumes the largest share of healthcare expenditure demonstrating the importance of hospital settings in the Turkish system. Unlike in most Western, Central and Eastern European (EEC) countries, the Turkish hospital capacity grew by around 2 percent each year in 2006-2014, driven by the expansion of the private sector. Turkey's aging population will be the key driver of growing healthcare demand at least for the medium term. Dynamically developing medical tourism is becoming a significant part of Turkish healthcare market, generating well over $-2 billion revenue per year. Turkey's political and cultural setting makes it a perfect destination for medical tourists from Europe, Central Asia and Northern Africa [53].

3.4.6 The SAIK has a Strategic Role

The SAIK – established in 2010 (a milestone year for medical tourism in Turkey) – has the mission of gathering health institutions under one roof and creating a platform in which the interests of these institutions are seen in common. Under the SAIK umbrella, there are total 14 institutions in which TURSAB and the Association of Accredit-

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ed Hospitals are among members. Some of the executive board representatives are the Republic of Turkey Ministry of Culture and Tourism, the RTMH and Turkish Airlines [49].

3.4.7 Legislative Issues are Quite Well Dealt by the SATURK

"The Development of Institutional and Legal Infrastructure of Health Tourism" that takes place in "The Action Plan of the Health Tourism Development Program" is among the primary transformation programs of the 10th Development Plan of the Republic of Turkey. The basic objective of the Health Tourism Coordination Council (SATURK) is to present the following services for tourists and international patients coming from abroad to maintain from healthcare services: taking measures about the public and private health institutions, health services and safety transfer conditions for international patients; developing health and medical tourism promotion and strategy; determining service criteria and the minimum service delivery standards that will generate data for accreditations; establishing the relations between encouragements and accreditation; creating price list that will be applied for foreign patients; making proposals on subjects that are relevant to the determination of the principles and procedures of auditing process; and coordinating works and operations regarding the auditing process [47].

4. Conclusion

The evaluation of the RTMH data of 2013-2014 on the medical tourism sector highlighted the fact that medical tourism needs the attraction of all the stakeholders' attention in Turkey. Medical tourism market offers new opportunities for both public and private stakeholders. Stakeholder approach adopts the target that is to carry out a joint work with the government agencies, NGOs, insurance companies, intermediary organizations, and many other institutions which may have a substantial role for the development of medical tourism through establishing and expanding coordination and networking key stakeholders in Turkey [7]. In other words, the role of central government is not only expanding the scope of stakeholders, but also increasing the number of key stakeholders who collaborate and act more effectively.

Interdependency among international and transnational actors and networks puts destination governance to the core point of collaboration and ensures a crucial base for reverse innovation in the health and medical tourism sector. In essence, the developing and developed countries are more advantaged in boosting collaboration level in destination governance because the regionalization and commercial partnerships provide a strong convergence of key stakeholders' interests in these states. Therefore, reverse innovation and collaboration in destination governance of health and medical tourism industries are likely to be considered as a holistic strategy and competitive advantage tool. As an important case, the development of the Turkish health and medical tourism market indicates that developing countries are more advantageous in increasing their aggregate benefits and earnings in the health and medical tourism market. The abovementioned data reinforce these arguments and shed light on future investigations that may evaluate reverse innovation and strong collaborations of key stakeholders in destination governance of health and medical tourism.

In sum, Turkey has achieved an outstanding plishments in medical tourism, recently. This situation is a result of the surge of private investments in private hospitals. This enforced the deliberate strategy i.e. – attracting medical patients from high-income countries and particularly from the EU member states. Currently, Turkey supplies almost all types of "cutting-edge" medical treatments at a proper price in 49 hospitals that are accredited to the JCI. One of the most offered medical treatments is transplantation surgery with 1/3 of all liver transplants in Turkey going to the international patients [35]. In this context, the central government has a substantial role in strengthening and networking stakeholder relations in the Turkish medical tourism market. The government's medical tourism datasets and governmental reports point out the importance of coordinating and enhancing stakeholders' interactions for developing medical tourism market in Turkey.

In light of all above-stated considerations, the overall evaluation and abstract knowledge of the outcomes of the 7th International Health Tourism Congress support the fact that stark collaboration between key stakeholders in health and medical tourism has a significant influence on destination governance and image. Further, commercialization, transformational reforms and modernization of the health sector in Turkey ensured reverse innovation as a competitive advantage component in development of medical education, technology, service quality (i.e. standardization, accreditation and so on), and global economic competitiveness level.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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References

[1] Aliu, A.. Hybrid structures and governance in tourism industry: regional and multi-level perspectives. In; J. Santos, F. Serra & P. Águas (Eds.). Strategies in tourism organizations and destinations: TMS conference series. Faro: ESGHT, UAlg, 2013: 65–79.

[2] Aliu, A., Cilginoglu, H., Ozkan, O. & Aliu, D.. Medical tourism market and stakeholders' relations in turkey: a comparative investigation from destination governance viewpoint. 7th International Health Tourism Congress Program and Abstract Book, 2015: 10.

[3] Aliu, D. & Aliu, A.. Sürdürülebilir Turizm Perspektifinde Hibridite ve Paydaş Yaklaşımı: Almanya, İngiltere ve Türkiye Kıyaslamalari. Akademik Bakış, 2016, 57: 343-361.

[4] Anadolu Agency. Europeans can fill absence of russian tourists in turkey, 2015. Retrieved from: http://www.dailysabah.com/nation/2015/12/01/europeans-can-fill-absence-of-russian-tourists-in-turkey (Access Date: 1 February 2016).

[5] Aydin, D.. Turkey health tourism pocket book. Ankara: Aren Tanitim Press, 2014: 48.

[6] Baggio, R., Scott, N. & Cooper, C.. Improving tourism destination governance: a complexity science approach. Tourism Review, 2010, 65(4): 51–60.

[7] Barca, M., Akdeve, E., Balay, I. G., Sencan, I. & Aydin, D.. Evaluation report on medical tourism in turkey 2012. Ankara: RTMH.

[8] Botterill, D., Pennings, G. & Mainil, T. (Eds.). Medical tourism and transnational health care. Basingstoke: Palgrave Macmillan, 2013: 3.

[9] Bramwell, B. & Lane, B.. Critical research on the governance of tourism and sustainability. Journal of Sustainable Tourism, 2011, 19(4-5): 411–421.

[10] Cohen, I. G.. Patients with passports: medical tourism, law, and ethics. Oxford: Oxford University Press, 2015.

[11] Connell, J.. Medical tourism: sea, sun, sand and … surgery. Tourism Management, 2006, 27(6): 1093–1100.

[12] Connell, J.. Medical tourism. Wallingford: CABI, 2011.

[13] Connell, J.. Contemporary medical tourism: conceptualization, culture and commodification. Tourism Management, 2013, 34: 1–13.

[14] Cooper, C., Scott, N. & Baggio, R.. Network position and perceptions of destination stakeholder importance. Anatolia: An International Journal of Tourism and Hospitality Research, 2009, 20(1): 33–45.

[15] Daily Sabah. The number of russian tourists visiting turkey down 47 pct, 2016. Retrieved from: http://www.dailysabah.com/tourism/2016/01/28/number-of-russian-tourists-visiting-turkey-down-47-pct (Access Date: 1 February 2016).

[16] Daily Sabah & Anadolu Agency. Turkey received most tourists from germany in 2015, 2016. Retrieved from: http://www.dailysabah.com/tourism/2016/02/02/turkey-received-most-tourists-from-germany-in-2015 (Access Date: 3 February 2016).

[17] d'Angella, F. & Go, F. M.. Tale of two cities' collaborative tourism marketing: toward a theory of destination stakeholder assessment. Tourism Management, 2009, 30: 429–440.

[18] DePasse, J. W. & Lee, P.. A model for reverse innovation in health care. Globalization and Health, 2013, 9: 40.

[19] Dredge, D. & Jamal, T.. Mobilities on the gold coast, australia: implications for destination governance and sustainable tourism. Journal of Sustainable Tourism, 2013, 21(4): 557–579.

[20] Fisher, C. & Sood, K.. What is driving the growth in medical tourism? Health Marketing Quarterly, 2014, 31: 246–262.

[21] Frederick, J. R. & Gan, L. L.. East–west differences among medical tourism facilitators' websites. Journal of Destination Marketing & Management, 2015, 4: 98–109.

[22] Govindarajan, V.. Reverse innovation: it all start with education. Leadership Excellence, 2014: 33.

[23] Govindarajan, V. & Ramamurti, R.. Reverse innovation, emerging markets, and global strategy. Global Strategy Journal, 2011, 1: 191–205.

[24] Govindarajan, V. & Trimble, C.. Reverse innovation: a global growth strategy that could pre-empt disruption at home. Strategy and Leadership, 2012, 40(5): 5–11.

[25] Guba, E. G.. Criteria for assessing the trustworthiness of naturalistic inquiries. ECTJ, 1981, 29(2): 75–91.

[26] Guba, E. G. & Lincoln, Y. S.. Guidelines and checklist for constructivist (a.k.a. fourth generation) evaluation, 2001. Retrieved from: https://www.wmich.edu/sites/default/files/attachments/u350/2014/constructivisteval.pdf (Access Date: 1 February 2016).

[27] Hall, C. M.. Medical tourism: the ethics, regulation, and marketing of health mobility. Abingdon: Routledge, 2013: 18.

[28] Hudson, S.. Sport and adventure tourism. Oxford: Haworth Hospitality Press, 2003.

[29] Immelt, J. R., Govindarajan, V. & Trimble, C.. How GE is disrupting itself? Harvard Business Review, 2009: 56–65.

 DOI: https://doi.org/10.30564/mmpp.v2i2.1169

[30] Inanır, S., Gungen, D., Aydemir, C. S. & Sancar, M. A.. Dis ekonomik iliskilerde guncel konular. Istanbul: Dis Ekonomik Iliskiler Kurulu (DEIK), 2011.

[31] Ismail, A.. Quality and accreditation in turkish hospitals. 7th International Health Tourism Congress Program and Abstract Book, 2015: 11.

[32] Istanbul Commerce University. Universitemizden 3 basarili proje daha, 2016. Retrieved from: http://www.ticaret.edu.tr/tr/Haberler/Detay/id/685 (Access Date: 1 February 2016).

[33] Joint Commission International. JCI-accredited organizations in turkey, 2016. Retrived from: http://www.jointcommissioninternational.org/about-jci/jci-accredited-organizations/?c=Turkey&F_All =y (Access Date: 1 February 2016).

[34] Kaya, S., Yildirim, H. H., Karsavuran, S. & Ozer, O.. Evaluation report on medical tourism in turkey 2013. Ankara: RTMH, 2013: 12.

[35] Labonté, R.. Let's make a deal: the commerce of medical tourism. In: Labonté, R., Runnels, V., Packer, C. & Deonandan, R. (Eds.). Travelling well: essays in medical tourism. Ottawa: University of Ottawa Press, 2013: 190-200.

[36] Lincoln, Y. S. & Guba, E. G.. Judging the quality of case study reports. Qualitative Studies in Education, 1990, 3(1): 53–59.

[37] Lunt, N., Smith, R., Exworthy, M., Green, S. T., Horsfall, D. & Mannion, R.. Medical tourism: treatments, markets and health system implications – a scoping review. Paris: OECD, 2011: 18.

[38] Lunt, N., Horsfall, D. & Hanefeld, J.. The shaping of contemporary medical tourism and patient mobility. In: Lunt, N., Horsfall, D. & Hanefeld, J. (Eds.). Handbook on medical tourism and patient mobility. Cheltenham: Edward Elgar Publishing, 2015: 3.

[39] Martinez-Alvarez, M., Smith, R. D. & Chanda, R.. The impact of medical tourism in low and middle income countries. In: Botterill, D., Pennings, G. & Mainil, T. (Eds.). Medical tourism and transnational health care. Basingstoke: Palgrave Macmillan, 2013.

[40] Page, S. J.. Tourism management. (5th ed.) Oxford: Elsevier, 2015.

[41] Prahalad, C. K.. The fortune at the bottom of the pyramid. New Jersey: Wharton School Publishing, 2005: 49.

[42] Republic of Turkey Ministry of Health. 2013-2014 Medical Tourism Datasets Package of Turkey. Ankara: RTMH, 2015.

[43] Riege, A. M.. Validity and reliability tests in case study research: a literature review with "hands-on" applications for each research phase. Qualitative Market Research: An International Journal, 2003, 6(2): 75–86.

[44] Ruhanen, L., Scott, N. Ritchie, B. & Tkaczynski A.. Governance: a review and synthesis of the literature. Tourism Review, 2010, 65(4): 4–16.

[45] Ryan, C.. Equity, management, power sharing and sustainability: issues of the new tourism. Tourism Management, 2002, 23: 17–26.

[46] Sinha, R.. Reverse innovation: a gift from developing economy to developed economy. Business Perspectives and Research, 2013, 2(1): 69–78: 71.

[47] T.C. Basbakanlik, Personel ve Prensipler Genel Mudurlugu. Saglik Turizmi Koordinasyon Kurulu (SATURK) Genelge 2015/3, No. 69471265-010-06/. Resmi Gazete, 2015, No. 29260, Retrieved from: http://www.resmigazete.gov.tr/eskiler/2015/02/20150207-14.html (Access Date: 1 February 2016).

[48] T.C. Kalkinma Bakanligi. 10. kalkinma plani (2014-2018): saglik turizminin gelistirilmesi programi eylem plani. Ankara: T.C. Kalkinma Bakanligi, 2014.

[49] Turkiye Odalar & Borsalar Birligi. Saglik turizminde 2020 yılı icin 10 milyar dolar gelir hedefliyoruz, 2011. Retrieved from: http://tobb.org.tr/Sayfalar/Detay.php?rid=285&lst=MansetListesi (Access Date: 1 February 2016).

[50] Tunaligil, V.. Integrated international health services: a progressive approach. 7th International Health Tourism Congress Program and Abstract Book, 2015: 23.

[51] TURSAB. Saglik turizmi raporu, 2014. Retrieved from: http://www.tursab.org.tr/dosya/12186/saglik_turizmiraporu_12186_5485299.pdf (Access Date: 1 February 2016).

[52] Yekeler, K.. The mediating role of transactional leadership in health institutions. 7th International Health Tourism Congress Program and Abstract Book, 2015: 17.

[53] Yildirim, R.. Economic potential of health tourism in turkey. 7th International Health Tourism Congress, Istanbul: Silence Istanbul Hotel & Convention Centre, 2015.

[54] Yilmaz, C.. Medikal turizm arastirmasi: 1. bolum. Ankara: T.C. Saglik Bakanligi, 2010.

[55] Yin, R. K.. Case study research: design and methods. (5th ed.) Thousand Oaks et al: Sage, 2013: 155.

[56] Zengingonul, O., Emec, H., Iyilikci, D. E. & Bingol, P.. Saglık turizmi: istanbul'a yönelik bir değerlendirme. Ekonomistler Platformu, 2012, Retrieved from: http://www.ekonomistler.org.tr/wp-content/uploads/2012/04/saglik_turizmi_rapor.pdf (Access Date: 1 February 2016).

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REVIEW

Russo-Japanese Peace Treaty Negotiations And Plans For Joint Economic Activity on the Southern Kuril Islands

Zhmakin Iliya Voda Kristina*

Center for Asia-Pacific Studies, Primakov National Research Institute of World Economy and International Relations Russian Academy of Sciences, Moscow, 117997, Russian Federation

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Japan

ABSTRACT

The article analyzes the Russo-Japanese peace treaty negotiations in 2013-2019. Despite the rapprochement in the trade, economic, political and humanitarian spheres, the territorial dispute remains an obstacle, significantly complicating bilateral ties. There remain disagreements on the sovereignty over the southern Kuril Islands, on acceptable conditions for resolving a territorial dispute, as well as on the significance of the territorial dispute for the development of bilateral relations. The plans for the implementation of joint economic activities on the southern Kuril Islands are also analyzed. It is concluded that Russia and Japan need to continue to build upon the result of rapprochement initiated by the leaders of the countries and continue negotiations on the peace treaty that will upgrade their relations.

1. Introduction

In 2013-2019 Russo-Japanese relations have entered the period of dynamic development after a long period of stagnation. In 2012, for example, Russian scholars pointed to the lack of a clear strategic vision of future cooperation and slow progress in negotiations on the difficult issues of bilateral relations. The Japanese side was said to be unwilling to develop full-scale relations with Russia without progress in resolving the territorial dispute on its terms [1].

Shinzo Abe, who became the Prime Minister of Japan in 2012 for the second time, proposed to improve Russian-Japanese relations, advance peace treaty negotiations, and resolve a Kuril Islands dispute [2]. The Russian side responded positively as Russia regards the conclusion of a peace treaty with Japan as a necessary condition for bringing bilateral relations to a qualitatively new strategic level.

In 2013-2019 the contacts between high-ranking Russian and Japanese officials intensified, the spectrum of bilateral talks broadened (including the dialogue in politics, economy, security, international issues, culture), and the economic cooperation was revitalized. The quantity of contacts between the leaders of Russia and Japan has grown significantly – Vladimir Putin and Shinzo Abe held their 27th meeting in Vladivostok on

**Corresponding Author:*
Voda Kristina,
Center for Asia-Pacific Studies, Primakov National Research Institute of World Economy and International Relations Russian Academy of Sciences, Profsoyuznaya str., 23, Moscow, 117997, Russian Federation;
Email: vodakris@gmail.com

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September, 2019. In this paper, we aim to examine the progress in Russian-Japanese peace treaty negotiations in 2013-2019, as well as plans for economic cooperation on the southern Kuril Islands. The analysis of recent developments around the Kuril Islands will contribute to the discussion of this topic, which has received increased attention in literature [3].

2. Progress in Russian-Japanese Negotiations in 2013-2019

The current rapprochement between Russia and Japan began when Shinzo Abe took the office of the Prime Minister of Japan in December 2012. Abe expressed a desire to end the territorial dispute with Russia. By doing this, Abe – a descendant of prominent post-World War II politicians – aspired to leave his mark in Japan's history as an influential leader, who managed to return the lost territories [4]. Abe made a bid to establish a trusting personal relation with Russian President Vladimir Putin. Thus, Abe followed in line with the widespread Japanese idea that the territorial dispute with Russia can be resolved at the highest political level only. In April 2013, Abe visited Moscow for the first time. During the meeting between Abe and Putin, the parties recognized the absence of a peace treaty between the countries as "abnormal" and agreed to resume and expedite consultations on its signing [5]. In June of the same year, Russia-Japan vice-ministerial-level consultations on a peace treaty began.

The "Ukrainian crisis", which began in 2014, suspended the Russian-Japanese rapprochement. Japan expressed solidarity with the restrictive measures against Russia taken by Western countries. In March-December 2014, Japan imposed sanctions on individuals and companies from Russia. Japan supported the suspension of Russia's membership in the G8. In addition, consultations between officials in a number of significant areas were halted. Negotiations on visa facilitation, bilateral investment agreement, and military and space cooperation actually stopped. Despite the fact that Japanese sanctions were much softer than those of the US and the EU, the act itself has been deemed by Russia as an unfriendly gesture that hinders the bilateral relations [6].

Meetings of Russian and Japanese officials resumed in 2016, despite the lack of contacts between Moscow and other G7 member countries. On May 6, 2016, Prime Minister Abe visited Russian resort Sochi, where he held talks with President Putin. During the talks Abe stated that a "new approach" that is free from traditional stereotypes was needed to solve difficult problems in Russo-Japanese relations, including a territorial dispute. Japanese Prime Minister expressed confidence that it is possible to find a way out of the impasse in the peace treaty negotiations, as the leaders agreed to work together to resolve this issue by creating future-oriented relations. At the meeting in Sochi, the Russia and Japan agreed to continue peace treaty consultations, which resumed in June 2016 in Tokyo.

In addition, Abe proposed to Putin an "8-point economic cooperation plan", providing for intensification of cooperation in the energy sector, small and medium-sized businesses, industrialization of the Far East, expansion of the export base, advanced technologies, including nuclear energy, and in the field of humanitarian exchanges. In accordance with this plan, Japanese ministries were instructed to prepare specific projects for the development of economic cooperation with Russia. A special group was created at the Prime Minister's Office of Japan, which included all the deputy ministers of the economic sector. Japanese Minister of Economy, Trade and Industry Seko Hiroshige was appointed responsible for the development of economic relations with Moscow.

Abe has somewhat deviated from the traditional Japanese approach that linked the development of the economic cooperation with Russia with progress in resolving the territorial problem on Japanese terms. Instead Abe considered building up Russian-Japanese economic cooperation as a necessary step for creating favorable conditions and friendly atmosphere that will help to resolve difficult problems in bilateral relations. In Russia, where Japan is seen as a welcome and promising economic partner, as well as a source of advanced technology and investment, Abe's economic proposals were received positively. At the same time, Russian leader denied the possibility of any concessions in the territorial dispute in exchange for expanding the Japanese investment in the Russian economy [7].

The first state visit of Russian President Vladimir Putin to Japan in 11 years (held in the cities of Nagato and Tokyo) took place on December 15-16, 2016. The business part of the summit ended with the signing of more than 80 agreements and memorandums of future cooperation, the total value of which was estimated at 2.54 billion dollars. Plans were announced for the creation of a Russo-Japanese investment fund of $ 1 billion, the joint founders of which were the Japan Bank for International Cooperation (JBIC) and the Russian Direct Investment Fund. Also, Putin and Abe gave start to consultations on conducting joint economic activities on the southern Kuril Islands, which was presented as a step towards the conclusion of a peace treaty on the basis of compromise. The parties reaffirmed their determination to sign a peace treaty, continuing to discuss unresolved issues that

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impede the achievement of this goal.

The advancement of Russian-Japanese economic cooperation under the "8-point plan" was discussed during Abe's visit to Moscow on April 27, 2017. More than 20 documents were signed on the implementation of joint projects in various fields, including the development of a gas field in Russian city of Irkutsk, the construction of a medicine center in the city of Khabarovsk, the introduction of the "smart city" system in Voronezh, etc. Leaders called the year of 2018 the Cross year of Russia and Japan, with more than 300 events planned and carried out under its framework, aimed at acquaintance with the culture of a neighboring country and developing humanitarian exchanges. Measures are proposed for organizing charter flights to the southern Kuril Islands for their former residents that would replace sea trips that are irregular due to bad weather conditions and thus inconvenient.

In 2017-2018 Russian-Japanese official contacts have become regular. At the same time, the lack of progress in peace treaty negotiations was becoming increasingly apparent. The intention to accelerate negotiations on the basis of the Soviet-Japanese Joint Declaration of 1956, was announced at the Russia-Japan summit meeting in Singapore on November 14, 2018. Since paragraph 9 of the Declaration states that the Soviet side will transfer to Japan the islands of Shikotan and Habomai after the conclusion of the peace treaty, the results of the Singapore meeting was taken by some as an agreement reached by Abe and Putin to transfer the southern Kuril Islands to Japan.

After the Singapore summit meeting Abe announced that in 2019 there would be a "turning point" in the Russian-Japanese negotiations, and said that the transfer of the southern Kuril Islands requires the full consent of their current residents. Then the Japanese media reported that Japan could offer a waiver of compensation related to the southern Kuril Islands, which the Japanese side is currently claiming. These statements caused a widespread public uproar in Russia that it took the intervention of the Russian Ministry of Foreign Affairs, which pointed out to the Japanese side through its ambassador that such public statements were unacceptable. In addition, in early January 2019, a bill "On Japan's Territorial Claims to the Russian Federation" which prohibits the transfer of the Kuril Islands, was introduced to the State Duma of the Russian Federation. More over, in a number of Russian cities, including Moscow and Yuzhno-Sakhalinsk, public meetings were held against the transfer of the Kuril Islands to Japan. According to surveys, more than 70% of Russian residents and almost 100% of the inhabitants of the southern Kuril Islands advocate that the islands remain under Russian sovereignty [8].

It appers that the domestic political situation in Japan, where a number of significant events took place in 2019, including the elections to the upper house of parliament, forced Prime Minister Abe to acceletare negotiations with Russia. In addition, Abe's term as Japan's Prime Minister expires in 2021, which may explain his intention to make 2019 a "turning point" in the peace treaty negotiations. In turn, the absence of detailed information on the progress and content of the talks between Putin and Abe, some of which are held behind closed doors, has led to widespread fears and rumors in the public space of both countries.

However, a surge of public concern did not lead to the suspension of official contacts between Russia and Japan. On June 28, 2019, President Putin paid a visit to Japan and participated in the G-20 Summit in Osaka. On September 4, Prime Minister Abe visited the Eastern Economic Forum in Vladivostok. The parties confirmed their interest in developing dialogue, concluding a peace treaty and resolving contentious issues in their relations. The Russian side pointed to the need to continue rapprochement in the trade, economic, political and humanitarian spheres. The Russian side believes that to further advance relations with Japan it is important to establish a visa-free regime with Japan, conclude an agreement on trade in services and investments, conclude an agreement on the exploration and use of outer space, etc.[9].

Under the "8-point economic cooperation plan" by the autumn of 2019 approximately 100 joint projects have entered the implementation stage. The largest project is the participation of the Japanese consortium Mitsui&Co and Jogmec in Arctic LNG-2, a project for the construction of a natural gas liquefaction plant in the Yamal-Nenets Autonomous Region, with investments worth more than $ 5 billion. In addition, a test project of cargo transportation from Japan to Europe by the Trans-Siberian Railway is underway. Negotiations are ongoing on more than 100 projects in the fields of tourism, agriculture, infrastructure construction, etc. The Japanese side has repeatedly stated the great potential for developing relations between Russia and Japan and expressed its intention to maximize this potential in the future [10].

3. Russia and Japan Positions on the Territorial Dispute

Despite the rapprochement of Russia and Japan in a wide range of areas in 2013-2019, the territorial dispute remains an obstacle, significantly complicating bilateral ties. There remain disagreements on the sovereignty over the southern Kuril Islands, on acceptable conditions for resolving a terri-

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torial dispute, as well as on the significance of the territorial dispute for the development of bilateral relations.

Firstly, on the issue of island ownership, the Japanese position is that the "Northern territories" - Habomai, Shikotan, Iturup and Kunashir Islands - are "ancestral territory" of Japan that are not included in the Kuril Islands, which Japan lost in accordance with The 1951 San Francisco Peace Treaty. In addition, Japan considers illegal the occupation of these territories by the Soviet Union, which occurred as a result of the USSR entering the war against Japan on August 8, 1945, and demands their return. According to the Russian position, Japan should recognize the post-war historical realities - that is, the Russian sovereignty over all the Kuril Islands.

Secondly, at present, the Russian side considers the Soviet-Japanese Joint Declaration of 1956 to be the basis for solving the issue of territorial demarcation with Japan. This is the only document, which was ratified by both parties and has the status of an international treaty [11]. At the same time, the Russian President Vladimir Putin has repeatedly criticized the content of the document, noting that, although this declaration states that the Soviet Union is ready to consider the transfer of two islands to Japan, nothing is said about the conditions and whose sovereignty over these islands would be established [12]. In turn, Japan considers the provision contained in paragraph 9 of the Joint Declaration as an obligation of Russia to transfer the islands of Shikotan and Habomai. Thus, according to Japan's position, the essence of negotiations on the territorial issue is to determine the way of transferring the other two islands. There is no evidence so far for a change of posture by either party. Moreover, in 2019, Russia and Japan on different levels have confirmed their basic positions, which makes the task of reaching a compromise on the territorial issue difficult.

Regarding the significance of the territorial problem for the development of Russian-Japanese relations, Japan believes the issue of the sovereignty over the southern Kuril Islands to be the most significant topic of bilateral relations. Japan regards the resolution of the status of the four islands as a prerequisite for signing a peace treaty. Russia claims that the resolution of a territorial dispute should be a consequence of the normalization of Russo-Japanese relations. As Russian Foreign Minister S. Lavrov noted, "closer interaction of our economies and civil societies, the establishment of good relations between our business people, mutual investments and implementation of joint economic, trade, infrastructure and foreign policy initiatives will help create an atmosphere that will be more favorable for signing agreements on even the most difficult issues" [13].

Thus, the significant disagreements between Russia and Japan, the unwillingness of the parties to abandon their basic positions, make the resolution of Kuril Islands issue highly unlikely in the short term.

4. Plans for Joint Economic Activity on the Southern Kuril Islands

Joint economic projects on the southern Kuril Islands have been discussed by current leaders of Russia and Japan since 2016. However, for the first time, the idea to establish joint mutually beneficial economic activity on the islands was expressed in the text of the Joint Soviet-Japanese statement of April 18, 1991, signed during the visit to Japan of USSR President Mikhail Gorbachev [14]. Then discussion of this issue continued during the presidency of Boris Yeltsin. Then, parties had high hopes of a breakthrough after informal meetings between the leaders of Russia and Japan in the Russian city of Krasnoyarsk (1997) and the Japanese city of Kawana (1998). However, plans for the joint development of these territories did not become the reality because Russia and Japan could not agree on the legal framework of cooperation on the islands. The issue of joint economic activity again came to the official level in 2009, when Russia proposed it to Japan during the visit of Russian Deputy Foreign Minister Alexey Borodavkin to Tokyo. The initiative was not further developed because Japan entered a period of political turbulence due to the frequent change of governments. In addition, the visit of the Russian President Dmitry Medvedev to Kunashir on November 1, 2010 met opposition from Japan and led to deterioration of bilateral ties.

The agreement to begin joint economic activity (JEA) on the southern Kuril Islands was announced at the summit of the leaders of Russia and Japan in December 2016 in Tokyo. Five priority areas for the development of cooperation were identified: aquaculture, greenhouses, tourism, wind energy, and waste recycling. Russian proposal on JEA, which included the provision that all joint projects should be implemented in accordance with Russian legislation, was initially rejected by the Japanese side [15]. The reason was the impossibility for Japan to recognize Russia's sovereignty over the southern Kuril Islands. The final joint statement signed by the leaders of Russia and Japan in Tokyo indicated the need to reach an agreement on the legal framework for the implementation of the JEA, including conclusion of a separate international treaty. In addition, it was clarified that the JEA should not "damage the positions of the Russian Federation and Japan on the issue of a peace treaty" [16].

In 2017-2018 Japan sent three missions to the southern Kuril Islands to study the possibility of implementing the

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JEA. The first mission, which included 69 Japanese officials and business representatives, visited Kunashir, Iturup and Shikotan Islands from June 27 to July 1, 2017. As the Japanese media noted, despite the fact that the mission was sent in a hurry, the Japanese government managed to attract big business. Most of the companies were from the Japanese island of Hokkaido, adjacent to the Kuril Islands [17]. The governor of the Russian Sakhalin Region Oleg Kozhemyako who accompanied the first mission indicated that local authorities were ready to create a favorable environment for the Japanese businesses, using mechanisms of public-private partnerships, subsidies, and provide access to the necessary infrastructure [18]. The second mission visited the southern Kuril Islands on October 26-31, 2017, and the third was sent on August 16-22, 2018. As a result, by the fall of 2019, two test projects in tourism and waste disposal were prepared for implementation. The Japanese expressed interest in developing cooperation in other areas such as growing strawberries in greenhouses, cultivating sea cucumbers and scallops, building wind farms, and creating tourist complexes [19].

Agreeing on a legal framework for conducting the JEA on the southern Kuril Islands is one of the main objectives that will determine the success of joint projects. Japan's refusal to conduct business on the islands in accordance with Russian legislation, and the related legal uncertainty, discourages businesses to implement commercial projects on these territories.

One of the important aspects of the JEA is the visiting regime for Japanese citizens to the southern Kuril Islands. The Japanese government doesn't support the standard way to travel to the islands on a Russian visa through the city of Sakhalin, thereby once again confirming the non-recognition of Russian sovereignty over these territories. In 1991-1998 the Ministry of Foreign Affairs of Russia and the Ministry of Foreign Affairs of Japan agreed on the visa-free exchanges between Russian citizens permanently residing on the islands of Iturup, Kunashir, Shikotan and the citizens of Japan [20].

In recent years, within the framework of "visa-free exchanges", 15-20 Japanese groups visit islands every year with a total number of about 300-500 people. Since 1992, approximately 20 thousand Japanese citizens visited the southern Kuril Islands [21]. According to the Japanese government, Japanese groups should include certain categories of citizens: former residents of the islands and their descendants, politicians, officials, journalists, doctors, scientists etc. Japanese trips are aimed at visiting former Japanese settlements on the islands, and familiarizing the inhabitants of the islands with Japanese culture, traditions, teaching the Japanese language. The composition of the groups is approved by the Ministry of Foreign Affairs of Japan on the basis of applications submitted through authorized organizations, such as the Hokkaido Committee to Promote Exchanges with Four Northern Islands, the Northern Territories Issue Countermeasures Association, the League of Residents of Chishima and Habomai islands, etc. The travel plan for the year is agreed upon during Russian-Japanese consultations on the regional and diplomatic levels. In addition, the program of each trip requires approval by the diplomatic authorities of the two countries. Thus, the lack of a free movement for the Japanese citizens on the southern Kuril Islands complicates the implementation of the JEA on these territories. Russia has repeatedly called to expand the visa-free regime throughout the Sakhalin Region. However, Japan has not yet accepted this proposal, advocating the preservation of the regime of "visa-free exchanges" only for four islands.

Thus, the implementation of the JEA on the southern Kuril Islands is complicated by the problems of harmonizing the legal framework for doing business. In 2019, the Russian side expressed dissatisfaction with the volume of business projects and the speed of their coordination, as stated by Foreign Minister S. Lavrov, calling the size of the JEA "modest and unimpressive." [22]. The Japanese government, in turn, continues to seek special conditions for doing business on the islands.

5. Conclusion

In 2013-2019 Russia and Japan expanded political, diplomatic, trade, economic and humanitarian interaction. At the same time, the parties could not overcome the deep differences on the issues of territorial demarcation and the conclusion of a peace treaty. The intention of Russia and Japan to advance in solving the territorial problem on the basis of a mutually acceptable compromise was expressed in the plans for joint economic activity in the southern Kuril Islands. Despite the difficulties in coordinating the economic and legal aspects of operating businesses on the islands, Russian and Japanese officials continue negotiations on the issue, which led to the project launch in 2019. This reconfirms the interest of both sides in joint activities aimed at building confidence and increasing interdependence in these territories. The immediate task for Russia and Japan is to continue to build upon the result of rapprochement initiated by the leaders of the countries and continue negotiations on the peace treaty that will upgrade their relations.

References

[1] Modern Russian-Japanese relations and the prospects for their development – M.: Spetskniga, 2012: 5.

 DOI: https://doi.org/10.30564/mmpp.v2i2.1250

[2] Kireev A.A. Russo-Japanese relations around Southern Kuriles: history, current condition, possible scenarios, Izvestiya Vostochnogo Instituta. 2017, 4: 35.

[3] Kuzminkov V.V. On the history of the territorial demarcation between Russia and Japan: a Japanese view. – M.: IDV RAN, 2016. 304 c.; Streltsov D.V. Russian-Japanese political dialogue in 2016-2017. Japan 2017. Yearbook. – M.: AIRO–XXI, 2017: 26-44; Kazakov O.I. On "hikivake" in Russian-Japanese Relations // Japanese research. 2016, 1: 47-58; Panov A.N. The Soviet-Japanese Joint Declaration of 1956: a difficult path to signing, a difficult fate after ratification // Japanese Studies. 2019, 2: 63-94; Contemporary Russian-Japanese relations and prospects for their development – M.: Spetskniga, 2012: 32. Prospects for the development of Russian-Japanese relations at a new stage: a workbook №50/2019. – M.: NP RCIA, 2019: 44; Kireeva A.A., Sushentsov A.A. Russian-Japanese rapprochement: opportunities and limitations. Report of the Valdai Discussion Club. August 2017: 28.

[4] Abe's grandfather - Kishi Nobusuke (Prime Minister of Japan from 1957 to 1960) signed a security agreement with the United States. Abe's granduncle - Sato Eisaku (Prime Minister from 1964 to 1972) - Nobel Peace Prize laureate (1974). Abe's father - Abe Sintaro (Minister of Foreign Affairs from 1982 to 1986) was known for his desire to normalize relations with the USSR, participated in the preparation of the visit of M.S. Gorbachev to Japan.

[5] Press statement and answers to journalists' questions following Russian-Japanese talks // President of Russia, 2013. URL: http://www.kremlin.ru/transcripts/18000.

[6] Commentary by the Russian Ministry of Foreign Affairs on the introduction of additional sanctions by Japan against Russia // Russian Ministry of Foreign Affairs, 2014. URL: https://tokyo.mid.ru/sobytia-vstreci-zaavlenia/-/asset_publisher/jy2Br3anVtps/content/kommentarij-mid-rossii-v-svazi-s-vvedeniem-aponiej-dopolnitel-nyh-sankcij-v-otnosenii-rossii?inheritRedirect=false (Accessed Date: 22.09.2019).

[7] RIA News. 02.09.2016.

[8] RIA News. 28.01.2019; 19.02.2019.

[9] Press release by Russian Minister of Foreign Affairs Sergey Lavrov following talks with Japanese Foreign Minister T. Kono. // Russian Ministry of Foreign Affairs, 2019. URL: http://www.mid.ru/ru/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/3664577 (Accessed Date: 22.09.2019).

[10] RIA News. 10.06.2019.

[11] See Kazakov O.I. On the 60th anniversary of the 1956 Joint Declaration of the USSR and Japan. Japanese Studies. 2017, 1: 75-89; Panov A.N. The Soviet-Japanese Joint Declaration of 1956: a difficult path to signing, a difficult fate after ratification. Japanese Studies. 2019, 2: 63-94.

[12] Meeting with heads of world news agencies. President of Russia, 2014. URL: http://www.kremlin.ru/events/president/news/21090 .(Accessed Date: 22.09.2019).

[13] Interview of the Minister of Foreign Affairs of Russia S.V. Lavrov, the media of Mongolia, Japan and China on the eve of visits to these countries // Ministry of Foreign Affairs of Russia, 2016. URL: http://www.mid.ru/press_service/video/-/asset_publisher/i6t41cq3VWP6/content/id/2227965 .(Accessed Date: 22.09.2019).

[14] From the Joint Soviet-Japanese statement of April 18, 1991. Joint collection of documents on the history of the territorial demarcation between Russia and Japan. - Ministry of Foreign Affairs of the Russian Federation, Ministry of Foreign Affairs of Japan, 1992: 49.

[15] Hokkaido Shimbun. 16.12.2016.

[16] Press statement following Russian-Japanese talks (on joint economic activities in the South Kuril Islands) // President of Russia, 2019. URL: http://www.kremlin.ru/supplement/5151 (Accessed Date: 22.09.2019).

[17] NHK. 28.06.2017.

[18] Japanese business delegation arrives to the Kuril Islands. TASS, 2017. URL: https://tass.ru/ekonomika/4370236 . (Accessed Date: 22.09.2019).

[19] The second Japanese delegation went to the Kuril Islands to inspect cooperation projects. TASS, 2017. URL: https://tass.ru/ekonomika/4678259 .(Accessed Date: 22.09.2019).

[20] Agreement in the form of an exchange of letters on the reciprocal travel procedure. // Consular information portal of the Russian Foreign Ministry, 1991 г. URL: https://www.kdmid.ru/docs.aspx-?it=/14.10.1991-Russia-Japan-agreement.aspx&lst=country_wiki .(Accessed Date: 22.09.2019).

[21] The regime of "visa-free exchanges" involves annual visits by Russian citizens - residents of the southern Kuril Islands to Japan. Since 1992, more than 8 thousand inhabitants of the islands have visited Japan.

[22] Speech and answers to media questions by Russian Minister of Foreign Affairs Sergey V. Lavrova during a press conference following negotiations with Japanese Foreign Minister T. Kono // Russian Ministry of Foreign Affairs, 2019. URL: http://www.mid.ru/ru/vizity-ministra/-/asset_publisher/ICoYBGcCUgTR/content/id/3472147 . (Accessed Date: 22.09.2019).

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