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MICROECONOMIC ASSESSMENT OF RUSSIAN HEALTH RESORT MARKET DEVELOPMENT IN 2012–2015

The article shows how external and internal macro-economic factors (the reduction of real income of the population, the depreciation of the local currency to the US dollar in 2014–2015, the promotion of Crimea as a direction for health and resort services for Russian citizens) impact on the financial and economic indicators of the Russian health resort companies during 2012–2015. The calculations based on a variety of the Federal State Statistics Service data demonstrate the positive dynamics of the development of regional markets of health resort services, due to the regional markets of Krasnodar, Stavropol and Altai regions and due to the inclusion of the Federal District of Crimea within the Russian macroeconomic indicators. The regression model based on a sample of 272 health resort companies proves the hypothesis about the more beneficial impact of the changes in macroeconomic factors for large health resort companies (with total annual sales of 400 million rubles) compared with smaller companies. It is expressed in the growth of profitability and annual sales. The calculations have shown that the companies size as an independent variable in a sample of data related to 2014–2015, increased its positive influence on the dependent variable of annual sales growth comparing to sampling for 2012–2013. The crisis economy and tough financial constraints in a Russian context trigger the discussion of new opportunities and tools for the development of market conditions, which will stimulate the demand for investment in material and technical base renewal and innovations from the side of large health resort companies. In addition to improving the transport accessibility of federal resort regions and measures for promoting and improving the quality of the general health and resort infrastructure, there are discussions to create a favorable competitive environment, improve the public procurement system (including the procurement of state-owned companies), as well as to stimulate the market participants to introduce product, marketing and organizational innovations (innovation-friendly climate).

Keywords: health resort organizations, wellness tourism, health resort sector, size of firm, panel data, health resort market, network form of business organization, public policy, microeconomic analysis, marketing innovation

Introduction

Nowadays, the dynamic business environment and fast marketing changes require new ways of conducting business from the companies, including constant adaptation to rapid changes and innovations to stay competitive on the market. This is the source of a sustainable long-term competitive advantage for any company, reportedly during the economic crisis.

This fact is even more typical for markets with high intensity of competition and the active use of modern IT, such as the service sector, which receives a considerable interest from the management and marketing researchers in recent years [1–3].

The health resort sector in Russia was chosen as the focus for the current research[1]. Concentrating on a single sector serves to control for the relative influence of external factors that differ across markets (e.g., demand, supply typology, government support, regulation, technology and marketing change) and provides an opportunity to develop specific characteristics of the business models of companies working in this sector.

The past 20 years have witnessed structural changes in the health resort market in Russia, which continue in recent years [4; 5].

Firstly, the health resort sector created in the USSR was unique in the world practice. The system was a part of the general strategy of effective national health improvement and encompassed in 1990 more than 7.4 thousand health resorts and wellness activities with an overall patient capacity

[1] In studies often used "health resort market", "wellness tourism", "wellness tourism market", "health resort sector", "sanatoriums", "health resorts", "Spas and health resorts", "resort hotels", "health tourism".

of 1.3 million people throughout the RSFSR[2]. The state implemented a comprehensive policy for the development of the health resort system. It was designed for the mass consumption and stimulated by a well-organized system of government funding.

Secondly, in the recent years this strategically important service market is experiencing the structural changes, both from on the supply side (e.g., renovated health resorts in Sochi after 2014 Winter Olympic Games and the formation of Crimean Federal District as a part of the Russian Federation) and from the perspective of searching for new business models, marketing and management practice, and growth opportunities in response to a growing demand for comfort and high service standards on this market.

Thirdly, the Russian health resort sector is a large and one of the fastest-growing markets of services for the period from 2012 to 2015. This is actively reported at the government level (for example, the meeting of the Presidium of the State Council held in August 2016 to increase the investment potential of Russian resorts), and in business media (e.g., Vedomosti, Kommersant, etc.), including the analysis of statistics by region (number of guest, beds, revenues, etc.).

Scholars (e.g., Bennett, King, Milner [6], Bihari-Axelsson, Axelsson [7], Chen, Liu, Chang [8], Cockerell [9], Heung, Kucukusta [10], Hofer, Honegger, Hubeli [11], Johanson [12], Loh [13], Mueller, Kaufmann [14], Ogorlec, Snoj [15]) went through the debates on creating of significant economic benefits and opportunities in solving many social problems due to the resort sector or wellness tourism. Health resorts sector (or wellness tourism) brings in prevent disease, improve health, enhance the quality of life, revenues, creates jobs, and may help improve the well-being of the general population.

The main focus in the research of Russian authors (e.g., Atkov [16], Oborin [17], Gaiduk, Grishina, Serdiukovskii [18], Vetitnev, Torgasheva [19], Golubnichiy, Goncharov, Popova [5], Tappaskhanova, Mustafaeva, Tokmakova, Kudasheva [20], Razumov, Limonov, Semenov [21], Tsekhla, Simchenko, Polishchuk [22]) is made on the study of the strategic advantages of the country's geographic location, the potential of its natural healing resources, effective methods of restorative treatment, physical fitness/beauty care, relaxation—conditions that should contribute to the creation of a positive image of sanatorium and resorts that provide clients with quality and affordable price services.

Scholars' attention to the microeconomic estimate of emerging health resort markets (e.g. Russia) is extremely limited, although there are case studies devoted to the analysis of existing marketing practices and network form of business organization (exp., JSC "Russian Railways-HEALTH") [23]. However, such research tends to analyze models at the level of a specific firm, which complicates the generalization of the results obtained.

Thus, among the priority research questions is the relatively poorly studied issue of assessing the changed macroeconomic factors (decrease in real incomes, weakening of the ruble to the US dollar in 2014–2015, growing interest for Crimean Federal District as a destination for health resort treatment and health improvement for population) on Russian health resort companies' performance in 2012–2015.

The work consists of three parts. We first examine the Russian health resort market at the macro level and determine the key trends in the analysis of the model at the firm level. The second part of the work presents the results of empirical research conducted on a cross-section of companies from the health resort markets in the nation of Russia. We conclude with a discussion and set of conclusions regarding the theoretical and practical significance of the work together with limitations of the study.

The Health Resort Sector in Russia

The world experience of developed countries confirms the need for the development of the health resorts industry, which creates significant economic advantages and contributes to the solution of many social problems. In 2013, the international wellness tourism accounts for about 14 % ($438.6 billion) of all domestic and international tourism expenditures[3].

According to experts' forecasts, wellness tourism is projected to grow by more than 9 % per year through 2017, nearly 50 % faster than overall tourism industry. At the same time, additional multiplicative benefits of infrastructure development in the health/wellness tourism segment are

[2] Zdravookhranenie v Rossii. 2005. [Healthcare in Russia. 2005]. Electronic resource: The Federal State Statistics Service Russia. Retrieved from: http://www.gks.ru/bgd/regl/B05_34/Main.htm.

[3] SRI International's 2013 Report, Spas & the Global Wellness Market: Synergies & Opportunities.

synergy in related industries. Therefore, wellness tourism generates 11.7 million direct jobs, delivering $1.3 trillion of global economic impact.

Most of the publications show the growing importance of developing a spa, wellness, health focus in the resort hotels business-models (or "healthy hotels"), including the importance of quality guest service in gaining competitive advantages (e.g., Cockerell [9]; Ogorlec, Snoj [15]; Johanson [12]; Chen, Liu, Chang [8]). For example, Hjalager, Konu [24] believe that "alliances in the value chain can lead to innovation and development in cosmeceutical (cosmetics and pharmaceuticals) enterprises, and that the collaboration can also assist the wellness industry in its attempts to achieve inimitability and competitiveness".

The Russian health resort sector is a large and one of the fastest-growing markets of services for the period from 2012 to 2015. The revenues of health resorts increased by 32 % in 2015 compared to 2012, and the number of guests in health resorts increased by 6 %[4].Why is health resort sector of Russia on such an astounding growth track?

The existing dynamics of the Russian health resort market (see Table 1) was due to the influence of internal and external macroeconomic factors. Namely, we are talking about the reduction of real incomes, the weakening of the ruble to the US dollar in 2014–2015, the growing interest for Crimean Federal District as a destination for health resort treatment and health improvement for population, as well as the statistical accounting of the Crimea Federal District in the macroeconomic indicators of Russia.

Table 1

Key economic indicators of the health resort market Russia, 2011–2015

	2011	**2012**	**2013**	**2014**	**2015**
Number of resorts	1 959	1 905	1 840	1 905	1 878
Number of beds, thousands	424,7	420,0	407,4	443,4	447,0
Revenues, billion roubles	89,7	97,4	100,3	113,9	128,6
Number of guests, millions	5,7	5,8	5,7	6,1	6,1
Weighted average rate of the US dollar to the ruble, rubles per US dollar, from January 1 to December 31	29,387	31,093	31,848	38,421	60,958
Real income of the population, %	100,5	104,6	104	99,3	96

Source: compiled by the authors on the electronic resource of the Federal State Statistics Service Russia. 2016. URL: https://www.fedstat.ru/ (11.10.2016).

Under the impact of currency fluctuations, the weakening of the ruble's exchange rate contributes to the growth of the market by increasing the price competitiveness of Russian health resorts in comparison with foreign resorts (for example, located in Eastern Europe, Germany, Italy and France). As a result, the consumers' interest in the services of health resorts in the territory of the Crimea, Federal District, Krasnodar, Stavropol, Altai and other regions of the Russia increases, which is partly confirmed by the statistics of the Russian health resort market in 2011–2015 (see Table 2).

However, the increase in the number of guests in the health resorts and the growth in market capacity in terms of value (revenue of health resorts) was primarily the result of statistical accounting of the Crimean Federal District in Russia's macroeconomic indicators, as well as the positive dynamics of the development of the Krasnodar, Stavropol and Altai regions.

Analysis of the number of guest's statistics for 2011–2015 as in case of the largest resort areas shows the uneven development of regional markets of the health resort services. Stable positive dynamics throughout the period is typical for the markets of the health resort services in the Stavropol and Altai regions. Krasnodar region increased the number of guests during the given period, after going through a slight decline in 2013. The Moscow region loses its guests throughout the entire period. The health resorts of the Republic of Bashkortostan, having increased the number of guests in 2013, failed to maintain high parameters afterwards, and the indicator of 2015 turned out to be worse than of 2011.

Analysis of the markets' volume in case of studied regions Russia shows a revenue growth of the health resorts throughout the period. During 2013–2015 the revenue increased for the TOP-5 regions

[4] Electronic resource. The Federal State Statistics Service Russia. Retrieved from: https://www.fedstat.ru/

Table 2

The key economic indicators of the health resort market Russia of the TOP-6 regions of the Russian Federation, 2011–2015

Region of Russia	Number of beds, thousand			Number of guests, thousand			Revenues, billion rouble			The average price of 1 bed-day in a health-resorts, rouble		
	2011	**2013**	**2015**	**2011**	**2013**	**2015**	**2011**	**2013**	**2015**	**2011**	**2013**	**2015**
Krasnodar region	91,7	84,3	92,8	1024,3	995,5	1150,8	19,2	20,6	26,9	1863	1833	2160
Stavropol region	30,0	30,0	30,6	503,1	512,8	568,4	13,0	15,0	19,2	1688	2045	2339
Crimean Federal District	0,0	0,0	45,8	0,0	0,0	402,4	0,0	0,0	10,6	—	—	1732
Moscow region	28,7	27,9	26,5	403,5	394,6	383,3	5,9	5,7	6,4	1541	2140	2778
Altai region	8,2	8,2	8,3	147,7	155,7	186,1	3,7	4,3	5,5	1468	1675	2117
Republic of Bashkortostan	14,0	13,4	12,7	237,6	255,7	229,7	3,8	4,6	5,2	1797	2306	2553
Total, TOP-6 %	172,5	163,8	216,7	2316,2	2314,2	2920,7	45,7	50,2	73,8	1671	2000	2348
Total, Russia	424,7	407,4	447,0	5732,9	5682,5	6100,6	89,7	100,3	128,6	1723	1999	2442
Share, TOP-6 regions, %	41	40	48	40	41	48	51	50	57	—	—	—

Source: compiled by the authors on the electronic resource the Federal State Statistics Service Russia. 2016. URL: https://www.fedstat.ru/ (11.10.2016).

mentioned above (excluding Crimean Federal District) and reached 13 billion rubles. While for all other regional health resort markets—4.7 billion rubles.

However, the reduction of real personal income is a negative factor for the companies of such kind. Since the health resort services are expensive and not listed in people's priorities (popular among 4.2 % of the population), the demand for them reduces due to a consumption in favor of other goods and services or consumption ceasing in favor of savings. The major behavioral pattern of those guests, who choose to buy a health resort trip, is opting for a shorter retreatment period compared to its standard and recommended length. Many customers cannot allow themselves a lengthy health resort trip due to financial constraints. Thus, for the last 5 years, the average trip stay at health resorts declined by 8.9 % and accounted for 10.1 days in 2015 per guests per year[5]. Although, the recommended treatment duration should be 14–21 days [16].

The goal of the current research is to demonstrate microeconomic assessment of Russian health resort market development in 2012–2015. We assess relationships between size of health resort companies firm and the business performance in an emerging market context. To achieve the goal of the study, the authors formulated the following basic questions—research hypotheses:

1. How have the sales and profit from sales of leading Russian health resort companies in 2012–2015 changed?
2. Is there a correlation between the renewal of fixed assets and the revenues of health resort companies of Russia in 2012–2015?
3. Does the size of health resort companies affect the firm performance in 2012–2015?
4. What factors influenced the sales growth and profitability of companies in 2012–2015?

Research Methods and Variables

Here are some procedural remarks that are useful for the effective perception of the results of the study below.

To achieve the stated goal of the study, we used descriptive statistics methods and regression analysis of panel financial and economic data of the leading health resort companies of Russia for 2012–2015.

[5] Analiz rynka sanatorno-kurortnykh uslug v Rossii v 2010–2015. Prognoz na 2016–2020 [Analysis of the health resort market and services in Russia in 2010–2015. The forecast for 2016–2020]. (2016). Bussinestat [Bussinesstat], 41. (In Russ.)

Dependent variables. Two dependent variables were used in the design of the models: a) annual sales growth rate (*Gr_Sal*), which characterizes the commercial results of the activity and the success of implementing marketing strategies in the health resort companies; b) return on sales (profitability) (*ROS*) as a ratio of sales profit (*operating profit*) to sales.

Independent variables. One of the most important characteristics of a health resort organization is its size, which, in the framework of this study, is determined using the value of the natural logarithm of the sales (*LnSize*). To measure economic indicators, the authors use the annual increase in the cost of fixed assets (*Gr_Fixed Asset*), as well as the cost of production (*Gr_Cost*).

To consider the specifics of the size of firms, the following variables were used: 1) a dummy variable for a group of medium and large health resort companies (*LM_dummy*)—sales in 2013/2015 of more than 400 million rubles; 2) a dummy variable for small and micro-health resort companies (*SM_dummy*)—sales in 2013 / 2015 in the range of 50–400 million rubles.

Structure and potential of the market. Additionally, the authors used the following indicators characterizing the structure and potential of the market: a) market share (*MS*)—the ratio of the sales of health resort companies to the total sales of companies in the region of the Russian Federation; b) natural logarithm of the volume of the regional market (*LnMarket*); c) increase in the volume of the regional market (*Gr_Market*).

The multiple linear regression models that we tested have the following form:

$$Gr\_Sal_{it} = \alpha_0 + \alpha_1 \ln Size_{it} + \alpha_2 Gr\_FixAs_{it} + \alpha_3 Gr\_Cost_{it} + \alpha_4 MS_{it} + \alpha_5 \ln Mark_{it} + \alpha_6 Gr\_Mark_{it}. \quad (1)$$

$$\begin{aligned} ROS_{it} = \alpha_0 + \alpha_1 Gr\_Sal_{it} + \alpha_2 \ln Size_{it} + \alpha_3 Gr\_FixAs_{it} + \\ + \alpha_4 Gr\_Cost_{it} + \alpha_5 MS_{it} + \alpha_6 \ln Mark_{it} + \alpha_7 Gr\_Mark_{it}. \end{aligned} \quad (2)$$

$\alpha_0, \ldots, \alpha_7$—model parameters, $i = 1, \ldots, 272$, $t = 2012, \ldots, 2015$.

Sampling Procedure

In 2015 in Russia, there were 1878 health resorts of different ownership forms, which employ about 205 thousand people[6]. Although it is worth noting that, they are heterogeneous by type (sanatorium, spa resort, and wellness resort), by a number of employees and number of guests.

This market is comprised primarily of associations of departmental (vedomstvennykh) health resorts of the Ministry of health, Ministry of defense, Ministry of internal Affairs of the Russia, FSB of the Russia, PJSC "Gazprom", Administration of the President of the Russia, Federation of independent trade unions of Russia, as well as many independent members of different legal forms (e.g., JSC, LLC, GUP).

These health resorts are financed or by the state budget, or at the cost of departmental (vedomstv), companies with public and private participation (e.g., on the principles of co-financing with guests), or fully guests.

The regression models were tested on a sample of Russian companies registered as legal entities whose financial statements are publicly available and whose main economic activity is "Activity of Sanatoriums and Resorts" (code OKVED 85.11.2 The Federal State Statistics Service Russia). The data of the annual financial statements of companies in accordance with Russian accounting standards collected using the information-analytical SPARK Interfax database for 2011–2015[7] were used as an information base for the study.

As additional filters for the selection of data, the following characteristics were used: a) age—more than 5 years; b) sales—more than 50 million rubles for the period from 2012 to 2015; c) exclusion from the analysis of health resorts of the Crimean Federal District; d) and the presence of financial reports for the period from 2012 through 2015 (balance sheet and income statement).

The study sample of 272 leading health resort companies included only balanced panels in which all companies had the same number of time cycles. The study examined two panels with short time series of two years (panel A: 2012–2013 and Panel B: 2014–2015). The sample structure on which the study was conducted is shown in Tables 3–4.

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[6] Electronic resource the Federal State Statistics Service Russia. 2016. Retrieved from: https://www.fedstat.ru/ (date of access: 11.10.2016). (In Russ.)

[7] SPARK Interfax database includes the information about all legal entities and individual entrepreneurs registered in Russia and uses constantly updated data from official government databases.

Table 3

Regions participating in this study

Region of Russia	Frequency	Percent, %
Krasnodar region	60	22
Stavropol region	38	14
Republic of Bashkortostan	10	4
Moscow region	10	4
St. Petersburg	8	3
Altai region	7	3
Other	139	51
Total	272	100

Source: compiled by the authors based on SPARK Interfax database

Table 4

Structure of companies by size in this study

Indicator	2013	2015
Large and medium-sized companies(sales per year is more than 400 million rubles)	26	35
Small and micro-sized companies (sales per year 50 — 400 million rubles)	246	237

Source: compiled by the authors based on SPARK Interfax database.

Almost half (49 %) of the studied companies are located in six regions of Russia — Krasnodar, Stavropol, Moscow, Altai regions, Republic of Bashkortostan, St. Petersburg. The remaining 139 firms (51 % of the studied sample) fall in the other 52 regions of Russia.

The number of large and medium-sized companies for the period 2013–2015 increased from 26 to 35 companies. The share of the formed sample of 272 companies in the sales of all health resort companies in Russia according to 2015 accounted for 63 % or 65.01 billion rubles. The share TOP-4 Russian health resort companies (JSC "Russian Railways-HEALTH", GUP "Sanatorium Yangau-Tau", JSC "Resort Belokurikha", LLC "Sanatorium Zapolyarye") with the maximum sales of 2015 was 8 % of sales of all health resort companies, and from the formed sample — 12 %.

Results

To analyze the empirical data, we used as a software the statistical package IBM SPSS Statistics, version 23 and the econometric package GRETL. Table 5 contains a summary and descriptive statistics for health resort companies' performance variables, and control variables. As the key statistical indicators, the mean and standard deviation of the variables for the periods considered were chosen.

Large health resort companies have a more stable financial and economic position in the market than small ones. Thus, the annual sales growth rate (*Growth Sales*) as an indicator of commercial performance in the periods 2012–2013 and 2014–2015, for a sample of large companies, with values of 9.4 % and 12.8 % higher than for the sample of small firms (5.9 % and 6.2 %). On average, the most profitable group also had the sample of the large resort companies — the average return on sales of 10.1 % in 2014–2015 versus 2.2 % for a sample of small firms.

At the same time, the profitability of sales increased by 3.4 percentage points for small organizations. (10.1 % instead of 6.7 %) against 0.2 percentage points, (2.2 % instead of 2.0 %).

From the change in macroeconomic factors in 2014–2015 compared with 2012–2013 significantly won large health resort companies: the annual sales growth for this sample increased by 3.4 p.p. (12.8 % instead of 9.4 %) against 0.3 p.p. (6.2 % instead of 5.9 %). A same time, for small health resort companies, return of sales (*ROS*) increased by 3.4 p.p. (10.1 % instead of 6.7 %) against 0.2 p.p. (2.2 % instead of 2.0 %). As for the annual increase in costs (*Growth Cost*), for the sample of large companies, it was 9.1 % for both panels. For the sample of small firms, this indicator in panel B in comparison with panel A increased from 4.7 % to 6.7 %.

Based on the statistic tests (the Wald Test, the Breusch and Pagan Test, the Hausman Test) we run the assessment of the regressive models (the pooled regression, fixed-effects and random effects models), which showed that the fixed-effects model reflects our data in the most adequate way. Therefore, the further analysis is completed in accordance with this assumption. The results of the regression analysis are given in Tables 6 and 7 (only significant variables are shown).

Table 5

Descriptive statistics

Variable	Mean	Std. Dev.
Panel A, 2012–2013		
Large companies (*LM_dummy*). Number of Obs.= 52		
Sales, thousand roubles	725 149	453 599
Growth_Sales, %	9,4	9,2
ROS, %	6,7	8,6
Growth_Cost, %	9,1	13,3
Growth_Market, %	7,0	13,3
Small companies (*SM_dummy*). Number of Obs.= 492		
Sales, thousand roubles	144 939	78 388
Growth_Sales, %	5,9	15,1
ROS, %	2,0	9,7
Growth_Cost, %	4,7	15,7
Growth_Market, %	6,9	14,1
Panel B, 2014–2015		
Large companies (*LM_dummy*). Number of Obs.= 70		
Sales, thousand roubles	758 735	526 027
Growth_Sales, %	12,8	10,3
ROS, %	10,1	9,4
Growth_Cost, %	9,1	12,4
Growth_Market, %	10,3	8,0
Small companies (*SM_dummy*). Number of Obs.=474		
Sales, thousand roubles	151 754	80 553
Growth Sales, %	6,2	16,4
ROS, %	2,2	8,5
Growth Cost, %	6,7	25,6
Growth Market, %	7,1	14,9

Source: compiled by the authors based on SPARK Interfax database.

Table 6

Regression results. Model 1. Fixed effects model. *Dependent variable* = *Growth_Sales*

Independent variable	Coefficient	*t*-statistics	*P*-value	Statistical significance
Panel A, 2012–2013				
Constant	–348,56	–2,26	0,02	**
Growth_Fixed Asset	0,01	1,96	0,05	*
Growth_Cost	0,33	7,74	0,00	***
LnSize	89,05	11,09	0,00	***
LnMarket	–47,85	–4,06	0,00	***
Growth_Market	0,18	3,19	0,00	***
R-squared	0,60	*F* (6, 266)	67,42	
P-value (*F*)	0,00	Number of observations	544	
Panel B, 2014–2015				
Constant	–484,30	–3,84	0,00	***
Growth_Cost	0,16	6,09	0,00	***
LnSize	108,35	14,55	0,00	***
MS	–1,83	–3,45	0,00	***
LnMarket	–52,97	–5,08	0,00	***
Growth_Market	0,22	4,03	0,00	***
R-squared	0,62	*F* (6, 266)	72,40	
P-value (*F*)	0,00	Number of observations	544	

Notes: * $p < .1$; ** $p < .05$; *** $p < .01$.

Translation

Table 7

Regression results. Model 2. Fixed effects model. *Dependent variable = ROS*

Independent variable	Coefficient	*t*-statistics	*P*-value	Statistical significance
Panel A, 2012–2013				
Constant	–126,66	–1,65	0,10	*
Growth_Rev	0,19	6,20	0,00	***
Growth_Cost	–0,21	–9,19	0,00	***
LnSize	23,38	4,89	0,00	***
MS	–0,40	–2,00	0,05	**
R-squared	0,37	*F* (7, 265)	22,55	
P-value (F)	0,00	Number of observations	544	
Panel B, 2014–2015				
Constant	–43,38	–0,77	0,44	
Growth_Rev	0,12	4,48	0,00	***
Growth_Fixed Asset	–0,01	–2,16	0,03	**
Growth_Cost	–0,08	–6,12	0,00	***
LnSize	12,92	2,98	0,00	***
R-squared	0,30	*F* (7, 265)	16,54	
P-value (F)	0,00	Number of observations	544	

Notes: * $p < .1$; ** $p < .05$; *** $p < .01$.

The results show that the regression model 1 is statistically significant for the two panels of data. *R*-squared for model 1 is relatively high, 62 % of modifications (for the panel data B 2014–2015) annual sales growth (*Growth_Sales*) were due to changes in the annual growth rate of costs (*Growth_Cost*), the increase in the size of the regional market (*Growth_Market*), by company size (*LnSize*), regional market (*LnMarket*), market shares (*MS*). The other 38 % apparently explained to other factors.

R-squared for model 2 cannot be considered high. Only 30 % of modifications (for the panel data B 2014–2015) in return on sales (*ROS*) were due to changes of the four statistically significant t-statistics of the independent variables. The other 70 % explained by other factors.

1. The results of the estimation showed that the independent variable "the size of the firms" (*LnSize*) in the panel data 2014–2015 has strengthened its positive impact on the dependent variable "annual sales growth" (*Growth Sales*) in comparison with the panel data of 2012–2013. This confirms the hypothesis that from the changed macroeconomic conditions of 2014–2015, on the indicators of commercial results, large health resort companies have won more than small ones.

2. We have found the positive impact of "annual sales growth" and "the size of the firms" on "return on sales" (*ROS*) and the negative impact of annual growth rate of the value of fixed assets (*Growth Fixed Asset*) and cost (*Growth Cost*).

3. In the panel data 2012–2013 and 2014–2015, the authors revealed a positive effect of the growth of regional health resort markets on the annual sales growth (*Growth Sales*). For example, for panel data 2014–2015 with the growth of the market for 1 %, the sales of companies grew on average by 0.22 % instead of 0.18 % for the data panel 2012–2013.

Thus, the obtained estimates show that the success of a large health resort business is determined not only by their access to quality natural healing factors (market leaders in revenue growth are located in federal resorts—in Krasnodar, Stavropol, Altai), but also to quality infrastructure. Market leaders are often large companies with a large capacity and a variety of additional resort infrastructure: medical centers, swimming pool, sports hall, sports fields, etc. They also possess a stronger "absorbing capacity", that is, the ability to "absorb" information about new medical technologies developed in other organizations (including in foreign resorts through the study of "best practices" of management) or in scientific institutions of balneology that is provided by an appropriate number of medical personnel.

Conclusions

With the paragraphs below, we want to discuss the empirical data and provide with short conclusions prepared in accordance with the research approach. This is the very first study to benchmark and analyze one of the fastest-growing Russian tourism segments: health resort sector. The testing sample is representative for the Russian health resort market: it covers the period of 2012–2015; consists of 272 testing companies which total sales consolidate 63 % or 65.01billion rubles of total sales of the all-Russian health resort companies for 2015.

First, the changes of macroeconomic factors during 2014–2015 brought to a beneficial impact on large health resort companies, which demonstrated the economic return (ROS) with a relatively low dispersion in comparison to smaller size counterparts on the health resort market. Furthermore, the "big players" had fast-growing annual revenue growth in 2014–2015 compared to 2012–2013.

Second, in conditions of crisis and within the framework of severe financial constraints, the state can stimulate the development of the health resort business by creating proper market conditions. Market incentives can boost demand for investments into technical and tangible assets and for an innovative business approach from the management of the large players (innovation-friendly climate). The resources and instruments available to the state should be oriented not only to improving the transport accessibility of federal resort region, including routes for foreign guests, along with a general renovation of the resorts infrastructure (e.g. parks, paths, wellness rooms etc. These instruments should also support a competitive market environment, the development of the public procurement system, the implementation of marketing, product and organizational innovations.

Third, the current regulatory and legal framework in Russia does not allow full use of the potential of public procurement for the development of the health resort market. None of two field-oriented Federal laws[8] contains explicit criteria for classifying the services as qualitative for guests. The criteria of price effectiveness and priority of qualitative health resort treatment may contradict each other, their balance is not detailed.

Fourth, the Russian government is recognizing the wide commercial benefits of health resort/ wellness tourism, as well its impact on the welfare of their economy and their population. However, it is advisable that the government, as major g-2-b (government-to-business) customers of the health resort services, withdraws from the direct budget financing of the departmental resorts. Instead, it is advisable for the government to purchase services of large and middle size health resort companies (with available guest's facilities) on the open competitive market. At the same time, the implementation of strict requirements of obligatory preventive medical and wellness treatment for certain labor groups (in the sake of increasing their productivity and welfare) with the growing numbers of related services can effectively promote the demand for qualitative services.

Such approach will ensure equal conditions for competitors, create incentives for private business to invest into the renovation of the material and technical assets, increase innovative activities, and involve guest's initiatives for development of qualitative and affordable services. The study of G. Naidu and co-authors shows that the intensity of the marketing relationship activities grew in those in hospitals that faced increasing competition [25].

In conclusion, the following recommendations are aimed at all players (e.g., wellness hotels, Spa resorts, health resorts, and tourism and health policy-makers) in Russian health resort market.

The players of the health resort market should follow the same changes occurred in related sectors of consumer service industry such as the hotel industry. Nowadays, for instance, many successful health resort organizations of the studied sample (e.g., JSC "Russian Railways-HEALTH", "Resort "Staraya Russa" and "Resort "Ust-Kachka" managed by hotel chain "AMAKS Hotels&Resorts", "Resort "Belokuricha") base their management and positioning practices on the network (or chain) business organization principles widely used in the hotel sector and afford greater competitive advantage [26, 27].

New and varied business models are emerging to meet the resorts and wellness needs of guests. The networking form of business organization in hospitality is a competitive advantage that helps to develop and adapt advanced networking standards of guest's services, to transfer the most important management competences and benefit from the brand ownership, share positive business experience within the network with a long-term, the mutually beneficial pool of assets.

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[8] On the contract system in the sphere of procurement of goods, works, services for provision of state and municipal needs "(with amendment and addendum, effective from 01.09.2016). Russian Federation's Decree of 05.04.2013 No. 44-FZ (as amended on 03.07.2016). On purchases of goods, works, services by certain types of legal entities. Russian Federation's Decree No. 223-FZ of July 18, 2011 (as amended on July 3, 2016).

Translation

From the point of view of marketing and sales, network synergies are as follows: 1) offering consumers a wider range of health and wellness services (synergy from cross-marketing and selling) with a variety of out-of-season programs for sanatorium treatment and leisure; 2) promotion of a single network brand throughout the calendar year to attract new customers; 3) support for a single database of customers and b-2-b (business-to-business) clients to optimize the booking process.

It is important fact that the health resort organizations may imitate innovative tools (technologies, knowledge, business processes, and management practices) from the companies of other industries, known as cross-sectorial innovations (or cross-industry innovation) — the result of creative comprehension of the best foreign and domestic practices and business models [28].

The most famous innovations borrowed from other industries among the health resort organizations are:

a) set-up and design of on-line health resort booking on vendor's official websites bypassing travel agencies[9] (due to increased accessibility of services, this innovation allows to acquire a new audience of guests and cover large areas, to save time when working with guests, creating for them the added value);

b) design of package service proposals and special programs, containing both medical, wellness and non-medical services for attracting new guests' groups;

c) guests' loyalty programs;

d) centralized IT-solutions for managing numbered rooms and medical, wellness activities, etc.

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Translation

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