



Methodology of Economic Evaluation of Balneological (Spa) Resorts of Russian Federation

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ABSTRACT

The problem of economic efficiency of Russian spa resorts is the cornerstone. Any business entity tends to benefit (economic effect) on its activities. For large amounts of an economic entity such as an enterprise or an entire state, counting benefits may be relatively time-consuming process, compared with the smaller entities, for example, such as a separate individual. In such circumstances, there is a need to find ways of comprehensive methodology for assessing the cost-effectiveness of spa resorts in Russia. The most important place in the health care system belongs to the resorts of Russians using the preventive, curative and rehabilitative purposes of the unique natural factors that provide versatility and high efficiency of rehabilitation treatment and rehabilitation of basic social diseases. In Russia, spa tourism - is not new, since at all times a favorite place of rest of Russians were the southern resorts of the Caucasian Mineral Waters, the head of which, of course, Essentuki, Zheleznovodsk, Kislovodsk and Pyatigorsk. The uniqueness of these cities is that they are located in the most convenient places: On the one hand, this is the best spa resorts in Russia, and on the other - the nature of these places she performs a very important and powerful factor contributing to the improvement of the body.

Keywords: Economy, Cost-effectiveness, Spa Resorts, Tourism

JEL Classifications: D22, L8, L83

1. INTRODUCTION

The term comes from the word wellness balneum (Latin for "bathing tub") and logos (Greek for "the teaching of science"). The literal translation of "wellness" means "teaching of swimming." In a more modern interpretation of the essence of the concept is much broader and bigger because of the long period of its existence and the use of mineral waters for medicinal purposes (Mankiw and Taylor, 2013).

Balneology (treatment with mineral water) - section of medical science, which explores the composition of mineral water, methods of their use for therapeutic purposes and the level of therapeutic effect that they have on the human body (Bakanov and Sheremet, 2006).

The object of the research are organizational and economic relations between the subjects of the socio-economic system of the region in the course of commercial activities of enterprises spa resorts.

The subject of research is the factors affecting the increase in economic efficiency of spa resorts. In this study, we used the following methods: A comparative, economics and statistics, system analysis.

2. THE USE OF MINERAL WATER IN BALNEOLOGICAL RESORTS

As a result of research activities wellness summarizes lessons learned on the use of mineral springs and develops the most advanced and effective methods for their use, establishes a list of contraindications. The main function of spa treatment - the study of mineral water and its effects on the body for their use for therapeutic purposes, rationalization and improvement of approaches to the treatment of mineral water (Lidin, 2009).

Balneology strongly associated with other branches of scientific knowledge, particularly biology, anatomy, chemistry, etc.

As the science (one of the sections of balneology) wellness is practical instruments for the application of its achievements expressed in scientific knowledge, in real clinical practice.

The main tool of balneology - balneotherapy, which is a set of techniques and methods aimed at the use of mineral waters for therapeutic and prophylactic purposes.

The main function of balneotherapy (use mineral water) - the immediate implementation of practical activities for mineral water treatment (Bakanov and Sheremet, 2006).

Practical mineral water treatment is a result of their internal or external application. Internal use of mineral water in most cases is expressed in the drink, intestinal lavage, inhalation. External application involves taking mineral baths. For external use mineral water have an effect on the skin, affect its thermoregulatory mechanisms to increase its heat transfer, affect the nerve receptors. The choice of the method of use of mineral waters for therapeutic purposes is dependent on the characteristics of a particular disease. Ingestion of mineral water is usually performed for treatment and prevention of diseases of the digestive system. The purpose of taking mineral baths - treatment of diseases of the cardiovascular system, skin, musculoskeletal system.

The healing effect of the mineral water, regardless of the various techniques and methods of its use for medical procedures is chemical exposure to the skin or internal organs, which creates a positive therapeutic effect, a beneficial effect is often not just a curative any disease, but also strengthens the entire human organism. It is important to take into account the chemical composition of mineral water, which is mainly and influences its therapeutic properties (Yusupov, 2009). Depending on the combination of various chemical ingredients in the composition of mineral water is also necessary to keep in mind the contraindications and cases where due to certain circumstances, the use of mineral water inside and outside by undesirable or prohibited. For example, liver cirrhosis, active tuberculosis, kidney disease and other diseases of the therapeutic and prophylactic treatments using mineral water can only lead to a negative result (Mankiw and Taylor, 2013).

In addition to balneotherapy, there is another essential element of spa treatment - balneotekhnika. Balneotekhnika expresses one of the areas of balneology studies, consisting in the most rational use of mineral springs, balneological resources protection from damage and deterioration. Urgency balneotekhnika acquired in recent years, due to the fact that balneology natural resources, as well as natural healing resources in general, require strict protection and control over their use (Bakanov and Sheremet, 2006).

Balneotekhniki are the following tasks:

1. Development of a rational scheme of balneological resource extraction and use;
2. The improvement of balneological resources of transportation, processing and storage.

Spa resort - the resort type, in which in the natural mineral water is used as the main factor of the spa. However, mineral water can have an artificial origin (Bakanov and Sheremet, 2006).

Balneological resorts depending on the composition of the prevailing natural mineral waters in their territories are divided into the following:

- Resorts with carbonic waters (Kislovodsk, Borjomi, Darasun, etc.);
- With sulphide waters (Hot Key, Yeisk, Kemer);
- With radon waters (Pyatigorsk, Belokurikha et al.);
- With nitrogen weakly mineralized cherty terms (Goryachinsk, Nalchik, etc.).

As part of the spa resort of functioning health facilities, which are produced and directly therapeutic and prophylactic treatments with mineral waters by various balneotekhnicheskikh appliances, devices, technical equipment. Such institutions are called balneolechebnitsa. They are located balneological baths, various spa pools (Bakanov and Sheremet, 2006).

3. THE ESSENCE OF THE CATEGORY OF “ECONOMIC BENEFIT” AND “ECONOMIC EFFICIENCY”

The economic efficiency of the company (economic efficiency) expresses the ratio of the economic effect of the company, calculated in terms of money for a certain period, for a total cost of resources in terms of money to achieve financial results. The costs incurred should be repaid in full during the period called the payback period. Short-term investments in small businesses considering investment in fixed and working capital should have a payback period of around one year, whereas large long-term investments can have a payback period calculated in a few years. Extremely high payback period of investment in company indicate troubles her status and activities.

Effect - the absolute value indicating the achieved result of a process. The effect of the difference between the value of the product and the cost of its production there is, *ceteris paribus*, in two cases: First, when the product is increased (output growth); secondly, when the reduced costs (resource saving).

The economic calculations are the most common three indicators of economic benefit:

- The annual - the difference between the annual product and annual costs;
- Integrated - the amount of annual effects, or the difference between the total product and total cost for the billing period;
- Average - the average of the annual effect for the billing period.

The economic effect of changes in the system can be considered as the difference between the annual effects before and after the change, or the difference between the integral effect for a number of years, for example. During the 5 years that preceded and followed them for a change.

If the results of economic activities exceed the costs, we have positive economic impact (estimated, for example, profit); in the opposite case - negative (damage, loss).

The economic effect - the result of human labor, creates wealth. Certainly the result itself is a very important, but it is equally important to know what it costs reached. Therefore commensurate effect, and the costs of achieving it is the basis of economic efficiency.

The problem of efficiency - it is always a problem of choice, for example, what to produce, what types of products, in what way, and how to distribute the amount of resources used (Zakharova and Prokhorova, 2015).

The basis of determining the effectiveness of the principle of comparative advantage, which is the basis of specialization as the country as a whole, and individual producers in particular. It is due to the comparative advantages of using one over the other resources it is possible to determine the most effective options of production, providing the greatest difference between the results and the costs and the establishment of an alternative value of any resource.

Cost-effectiveness is measured by the two types of indicators: One is characterized by per capita production of the population, while others - the ratio of performance and cost.

The efficiency of the economic system depends on the efficiency of production, social services (education, health care, culture), the efficiency of public administration. The effectiveness of each of these areas determined by the ratio of the results to the measured costs and a set of quantitative indicators. The effectiveness of the enterprise is characterized by the production of goods or services at the least cost. It is expressed in its ability to produce the maximum amount of acceptable product quality at minimum cost and sell these products at the lowest cost. The economic efficiency of the enterprise as opposed to its technical efficiency depends on how its products meet the requirements of the market, the needs of consumers (Kovalev and Volkova, 2008).

In calculating benefits in production efficiency commensurate costs of one or all of the factors with the benefits received (good). It is therefore clear that the performance of production can be many. Thus, the measured labor productivity (by dividing the value of all goods manufactured in the number of employees or the value of labor costs), the consumption of materials (by dividing the value of consumed natural resources, including the last primary processing - raw materials, fuel and energy, materials and semi-finished products, the cost of goods manufactured), capital intensity (dividing the cost of capital used in the value of production) or on capital (the return rate obtained by dividing the value of production on the cost of capital employed). If the value of production commensurate with the cost of all the factors used, then talk about profitability (Zakharova et al., 2015).

4. FACTORS AND RESERVES OF INCREASE OF ECONOMIC EFFICIENCY

The level of economic efficiency spa resorts depends on the variety of interrelated factors. For each industry due to its technical and

economic characteristics of the specific characteristic of the efficiency factors.

All the variety of the effectiveness of growth factors can be classified according to three criteria:

1. Improve the efficiency of the source, the main ones are: Reduction in labor, materials science, manufacturing and capital fondo - spa resorts services, efficient use of natural resources, spa resorts, saving time and improving the quality of services;
2. The main directions of development and improvement of production service spa resorts, which include: The acceleration of scientific and technological progress, improving the technical and economic level of production; improving the structure of production, the introduction of organizational management systems; improving the forms and methods of production of spa resorts, planning, motivation, work, etc.;
3. The level of implementation of the production management system, depending on factors which are divided into:
 - Internal (intra-industry), the main ones are: Development of new products; mechanization and automation; the introduction of advanced technology and advanced equipment; improved utilization of raw materials, fuels, power; improvement of management style, etc.;
 - External - is the improvement of the branch structure of industry and manufacturing, government economic and social policy, the formation of market relations and market infrastructure, and other factors.

Increased production efficiency - is not incidental, but a natural, stable, recurring and causation process, acting objectively. It should be noted that the more civilized a society, the more important it is to enhance production efficiency, as increasing demand and awareness of the need to save public expenditure is extremely increased production; purpose of production is becoming the satisfaction of the needs of all members of society, and at the same time, priority is given not to the material and social results. All this suggests that the increase in the efficiency of production acquires the features of economic law, which can be formulated as the law of rising production efficiency. Law of rising efficiency of production - it is the law - the trend, as the growth of the efficiency of the total social labor often impede opposing factors. The greatest increase in production efficiency is achieved with intensive type of expanded reproduction, which is characteristic of the present stage of development of society and economy of the developed countries (Mindlin et al., 2016).

In modern conditions of production efficiency can be achieved primarily through the development of innovative processes, receiving final expression in the new technologies, new types of competitive products.

In the transition to a market economy, it is very important initial phase of activities of scientific and technical nature. Collectives of enterprises, their managers focus on financial incentives work. Most of the profit after tax is sent to the consumption fund. This situation is not normal. Clearly, with the development of market relations the company will pay due attention to the development

of production in the future and will send the necessary funds for new equipment, upgrading of production, on the development and manufacture of new products.

One important factor to intensify and improve the efficiency of production is a saving mode. Resource must become a critical source for meeting the growing demand for fuel, energy and raw materials. In dealing with all these issues, an important role belongs to the industry. It is necessary to create and equip the national economy of machinery, equipment, providing high efficiency of construction and other materials, raw materials and energy resources, the creation and application of highly efficient low-waste and non-waste processes (Nureyev, 2005).

An important role in improving the efficiency of production belongs to the organizational and economic factors, including management. Especially their role increases with an increase in the scale of social production and the increasing complexity of economic relations. First and foremost is the development and improvement of rational forms of production organization - concentration, specialization, cooperation and combination.

Economic efficiency - one of the most common and generalizing concepts of economy, which is reflected in the impact of the use of factors of production, their savings and favorable combinations on the basis of rational choice, which aims to increase profits, increase production and maximize meet the needs of all members of society.

5. THE SYSTEM OF INDICATORS OF ECONOMIC EFFICIENCY

Production efficiency is multidimensional. Political and economic research entities or forms of production efficiency take into consideration a variety of signs and forms of expression efficiency.

As a general indicator on the effectiveness of national economic level two measures are widely applied:

- The growth of gross domestic product (national income) per capita;
- Production of the gross domestic product (national income) per 1 ruble (unit) costs.

The indicators used to determine the level of efficiency in the national economy of scale, region, sector, differ slightly from the figures used at the level of primary entities and are private.

At the enterprise level scorecard overall economic efficiency includes indicators such as by type of resources used, and estimates.

System performance spa resorts processes and companies should take into account three main flow of information:

- Information about the quality of products or services on the degree of compliance with customer requirements, the stability and reproducibility of the enterprise product parameters spa resorts;
- Information about the quality of the process, its effectiveness and resource consumption, stability and reproducibility of the

parameters of the enterprise spa resorts in the process;

- Information on customer satisfaction, the possibility and feasibility of the foreseeable needs of the client.

The main elements of the competitiveness of the recreational service spa resorts are the economic parameters, the parameters characterizing the quality of service and price, as well as the parameters of efficiency of promotion and realization of recreational services (Tupchienko, 2010).

This raises the need to analyze the economic efficiency of organizations spa resorts. Currently, there are a large number of indicators that are used to analyze economic efficiency.

The most important to assess the cost-effectiveness of organizations spa resorts, from our point of view are as follows: Sales of recreational services, economic viability, efficient use of material and technical base of spa resorts. For the convenience of calculations, we suggest using a complex index of economic efficiency of activity of the organizations spa resorts, which includes in addition to the evaluation of financial performance efficiency of the material and technical base and the efficiency of human resources.

$$K_{\text{ЭЭ}} = \sqrt[3]{\kappa_{\Phi\partial} \times \kappa_{H\Phi} \times \kappa_{Kn}}$$

Where,

$K_{\text{ЭЭ}}$ - Complex coefficient economic efficiency,

$\kappa_{\Phi\partial}$ - Coefficient of efficiency of financial activity,

$\kappa_{H\Phi}$ - Coefficient of efficiency of use of the number of rooms,

K_{Kn} - Personnel potential efficiency ratio.

Presented a comprehensive index of economic efficiency, in our opinion, is more informative in comparison with other economic indicators of the financial condition, such as: Financial stability, liquidity, autonomy, which in itself is not enough characterize the degree of economic efficiency organizations spa resorts (Shejko, 2007).

The next stage of competitive assessment SARS are parameters that assess the quality and price of services provided. Information on customer satisfaction the quality of services provided and the price level is obtained based on the results of expert surveys and analysis of the questionnaires served guests. In this case, when the survey took into account the following factors, which are critical in selecting organizations spa resorts: The image of the organization, the price of services, the condition of the number of rooms, location, staff qualifications, a set of additional services, the quality of service. According to the results of expert assessments it is possible to calculate the factor of competitiveness of service quality spa resorts organizations.

competitiveness coefficient (K_{ky}) of each organization individually calculated according to the formula:

$$K_{ky} = P_1/P_2,$$

Where,

P_1 and P_2 - Square shapes of a polygon competitiveness of the analyzed organizations spa resorts and the organization of a competitor.

$$P = \frac{1}{2} \sin \frac{360^0}{m} \sum_{i=1}^m \alpha \times \beta,$$

$$= \frac{1}{2} \sin \frac{360^0}{m} \cdot (\alpha_1^I \beta_1^I + \alpha_2^I \beta_2^I + \dots + \alpha_n^I \beta_n^I)$$

Where,

m - The number of factors taken into account,

α - Point value of the first factor;

β - Point value of the following factors.

The third parameter, which forms an integral component of recreational services, is the effectiveness of the promotion and sale of services spa resorts organizations. For the analysis and evaluation, we will use the information associated with the return on sales of tourism products, the effectiveness of advertising, as well as information about the interaction of organizations spa resorts with tour operators and travel agents and the possibility of obtaining information about the tourist product and its purchase by internet. This information was reflected in the consolidated ratio which characterizes in fact the sales efficiency of tourist-recreational product.

$$K_{\text{эс}} = \sqrt[4]{K_{\text{пн}} \times K_{\text{эп}} \times K_{\text{эо}} \times K_{\text{ои}}}$$

Where,

$K_{\text{эс}}$ - Integrated marketing efficiency factor of tourist product,

$K_{\text{пн}}$ - Sales profit ratio,

$K_{\text{эп}}$ - Advertising effectiveness ratio,

$K_{\text{эо}}$ - Coefficient of efficiency of cooperation with tour operators and travel agents,

$K_{\text{ои}}$ - Sales efficiency ratio via the internet.

Generalizing the study received higher level of competitiveness of tourist organizations and recreation areas can be calculated as follows:

$$K_{\text{к}}^u = K_{\text{эп}} + K_{\text{кс}} + K_{\text{эс}}$$

Where,

$K_{\text{к}}^u$ - Integral gain competitiveness spa resorts organizations,

$K_{\text{эп}}$ - Comprehensive cost-effectiveness ratio spa resorts organizations,

$K_{\text{кы}}$ - Factor of competitiveness of service quality spa resorts organizations,

$K_{\text{эс}}$ - Integrated marketing efficiency factor of tourist product.

Thus, the author of the proposed recommendations allows to analyze and evaluate the level of competitiveness of the spa resorts organizations. In this account of the specificity of this sector can

more accurately determine the position of the organization in the market of recreational services in relation to competitors. These recommendations also allow you to determine the cause of reducing the competitiveness of the spa resorts of organizations (in the case of low values calculated ratio) in order to fix it in the implementation of management actions.

6. CONCLUSION

Relaxing spa resorts Russian companies currently represent a major component of the development of the tourism sector of the economy; have great potential for the formation of the state budget revenues. Sustainable development of tourist-recreational sector is one of the strategic directions in tourism and the Russian economy as a whole.

In recent years, increased the accessibility of tourist and recreational services for many categories of tourists to the Russian Federation, which was due to the simplification of a number of formalities for registration of tourist vouchers, introduction of innovative technologies in the service process, increasing the concentration of companies in Russia spa resorts, as well as increase the efficiency of the national economy. Nevertheless, the level of domestic tourism and recreation service lags far behind foreign. The Russian enterprises of tourist and recreational sphere different from the world's low-maintenance and insufficient quality of provided services themselves, which does not sufficiently ensure that market demand and, consequently, to compete successfully.

It can be concluded that the mud treatment and resort-resort style, where natural mineral water is used as the main therapeutic factor. Water can be used externally (baths, showers, swimming pools, etc.), for drinking water treatment, inhalation, irrigation and other procedures. Balneotherapy resorts equipped Balneo-hospital, drinking gallery, pump room, swimming pools, inhalers, etc. (Razumov, 2010).

For example, the Caucasian Mineral Waters as a spa resort analyzed the main natural healing factors, methods of balneological treatment and their application, has developed a program for further development of Russian spa resorts.

It is events such as:

- Conduct inventory of natural medicinal resources in order to create a single database.
- Reassess reserves of medicinal mineral waters.
- Carry out geological studies to identify promising therapeutic areas.
- Develop a strategy for the development of sanatorium and tourist industries.
- Rate Factors of investment attractiveness of resort and recreation industry and create a data bank for potential investors.
- Develop a clear legislative and regulatory framework for resorts and therapeutic areas of federal significance.

Prospects for the development of balneology are: Conducting controlled clinical studies, the choice of parameters, conditions

and methods of application balneo-factors providing the maximum (optimal) therapeutic result, decoding of biophysical mechanisms of absorption and the primary effects of the action balneo-factors, identifying mutual balneological, physical factors and medicines.

All this together will improve the scientific and practical base of balneology as a science, will improve the quality of mineral water in the modern health technologies.

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