

Artículo de investigación

Analysis of the main economic indicators dynamics for the activities in the field of physical fitness and sports in the Southern Federal District of the Russian Federation in 2005-2017

Análisis de las principales dinámicas de indicadores económicos para las actividades en el campo de la condición física y los deportes en el Distrito Federal del Sur de la Federación de Rusia en 2005-2017

Análise da dinâmica dos principais indicadores econômicos para as atividades no campo da aptidão física e esportes no Distrito Federal do Sul da Federação Russa em 2005-2017

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Abstract

The purpose of this paper is to present some results of a comprehensive economic study in the field of physical fitness and sports. In this case, features of the dynamics concerning main indicators of the physical fitness and sports complex in the Southern Federal District of the Russian Federation are revealed, and a characteristic of the emerging trend is given. To achieve the stated goal, general logical cognition methods, statistical analysis of growth rates, and graphical analysis were used. The results of the study include the following. The paper discusses the theoretical issues of terminology and the structure of the object of study. The modern scientific works considering the issues of economy, management and development of sports and sports complex are analyzed. The

Resumen

O objetivo deste artigo é apresentar alguns resultados de um estudo econômico abrangente no campo da aptidão física e esportes. Neste caso, as características da dinâmica acerca de indicadores principais da aptidão física e o complexo de esportes no Distrito Federal do Sul da Federação russa revelam-se, e uma característica da tendência emergente dá-se. Para alcançar o objetivo declarado, foram utilizados métodos lógicos gerais de cognição, análise estatística das taxas de crescimento e análise gráfica. Os resultados do estudo incluem o seguinte. O artigo discute as questões teóricas da terminologia e a estrutura do objeto de estudo. Os trabalhos científicos modernos considerando as questões de economia, gestão e desenvolvimento do complexo esportivo e

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general boundaries of the study were determined: analysis of the dynamics in the four main indicators of the sports and sports complex in the Southern Federal District: sales revenue, profit (loss) from sales, the value of fixed assets, and the average number of all employees engaged in sports. The development trends of the main indicators of the physical fitness and sports complex in the Southern Federal District are revealed. A forecast of their changes was made. Directions for further are studied. The scientific novelty of the research presented in the paper consists in that, first, theoretical approaches (for marketing and management) to determining the boundaries and structure of the physical fitness and sports sphere are identified; secondly, the trend of changes in the main economic indicators of the sports complex in the Southern Federal District was revealed. The practical significance of the paper lies in the fact that its main results, statements and conclusions can be used in the development of a strategy for the development of a physical culture and sports complex, and in making investment decisions. The data obtained in the paper will be used by scientists - economists, scientific and pedagogical workers for expanding and deepening their understanding of the subject area. The methodological basis of the paper can serve as an example in the formation of research competencies of students, undergraduates and graduate students.

Keywords: Physical culture, sports, sports economics, sports industry, sports product, sports complex, sports activities, sales revenue, profit (loss) from sales, the value of fixed assets, the average number of all employees employed in the field of sports, forecast, Southern Federal District.

Resumo

O objetivo deste artigo é apresentar alguns resultados de um estudo econômico abrangente no campo da aptidão física e esportes. Neste caso, as características da dinâmica acerca de indicadores principais da aptidão física e o complexo de esportes no Distrito Federal do Sul da Federação russa revelam-se, e uma característica da tendência emergente dá-se. Para alcançar o objetivo declarado, foram utilizados métodos lógicos gerais de cognição, análise estatística das taxas de crescimento e análise gráfica. Os resultados do estudo incluem o seguinte. O artigo discute as questões teóricas da terminologia e a estrutura do objeto de estudo. Os trabalhos científicos modernos considerando as questões de economia, gestão e desenvolvimento do complexo esportivo e esportivo são analisados. Os limites gerais do estudo foram determinados: análise da dinâmica nos quatro principais indicadores do complexo esportivo e esportivo do Distrito Federal Sul: receita de vendas, lucro (prejuízo) das vendas, valor do ativo imobilizado e número médio de todos os funcionários envolvidos em esportes. As tendências de desenvolvimento dos principais

esportivo são analisados. Os limites gerais do estudo foram determinados: análise da dinâmica nos quatro principais indicadores do complexo esportivo e esportivo do Distrito Federal Sul: receita de vendas, lucro (prejuízo) das vendas, valor do ativo imobilizado e número médio de todos os funcionários envolvidos em esportes. As tendências de desenvolvimento dos principais indicadores do condicionamento físico e do complexo esportivo no Distrito Federal do Sul são reveladas. Uma previsão de suas mudanças foi feita. As direções para além disso estudam-se. A novidade científica da pesquisa apresentada no artigo consiste em que, primeiro, abordagens teóricas (para marketing e gestão) para determinar os limites e a estrutura da aptidão física e da esfera esportiva são identificadas; segundo, revelou-se a tendência de mudanças nos principais indicadores econômicos do complexo esportivo do Distrito Federal Sul. O significado prático do artigo reside no fato de que seus principais resultados, declarações e conclusões podem ser usados no desenvolvimento de uma estratégia para o desenvolvimento de uma cultura física e complexo esportivo e na tomada de decisões de investimento. Os dados obtidos no trabalho serão utilizados por cientistas - economistas, trabalhadores científicos e pedagógicos para ampliar e aprofundar sua compreensão sobre a área temática. A base metodológica do artigo pode servir de exemplo na formação de competências de pesquisa de estudantes, estudantes de graduação e pós-graduação.

Palavras-chave: cultura física, esportes, economia esportiva, indústria esportiva, produto esportivo, complexo esportivo, atividades esportivas, receita de vendas, lucro (prejuízo) das vendas, valor do ativo imobilizado, número médio de empregados empregados na área de esportes, , previsão, Distrito Federal do Sul.

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Introduction

The importance of the study of such a part of the service sector as a sports complex does not cause doubts. Sport is not only and not so much a sphere of human economic activity, but a sphere of culture and ideology. From scientific publications it is noted that: "For a long time, sport and economy were considered as two separate independent branches, even in the West. It was believed that sport is a hobby, free pastime, and it has nothing to do with economics, profession, and trade. Today, everything has changed dramatically" (Mansurova & Mansurov, 2015). Currently, sport has been considered a specific part of the economy, an element of the service sector and show business. However, there is currently no clear assessment of the economic efficiency of this area of human activity.

In our opinion, it is advisable to consider the development trend in this area from an economic and managerial standpoint. To do this, first, it is necessary to clearly define the object of study. Second, we need to characterize the subject of study. Third, we need to choose a reasonable method of study. Fourth, to apply the methods for study. And fifth, we need to draw conclusions and recommendations.

It can be noted that economists have used several terms to summarize this field of human activity. Thus, it is necessary to clarify the object of study.

So, in scientific publications the terms "sports industry" or "industry of sports", less often "physical fitness and sports industry" are met. Marketers define the sport industry in this way: "The sport industry is a part of the national economy associated with the production, promotion and marketing of sporting goods, services and other commercial products (including sporting events), as well as sponsorship in sports" (Aleksunin Vladimir Alekseevich & Baskakov Vladimir Anatolevich, 2016). It can be noted that the authors of this definition proceed, in essence, from the marketing features of a sports product. In addition, there is a variety of sports products.

In general, in our opinion, this approach is quite logical, but the term "industry" can be misleading in some cases. However, such a name of our facility as "sport industry" or "industry of sports" is quite widespread. In the scientific electronic library "Cyberleninka" there are 3,532 publications in the journals of the State Commission for Academic Degrees and Titles list, 54 publications from the Scopus database and 25 publications from WOS, which mention the term "sports industry" or "industry of sports".

This term is also found in dissertations and theses. However, attention should be paid to the philological work of E.I. Gureeva; this author in her study of sports terminology mentions the sports industry only indirectly (Ivanovna, 2007) .

O.D. Tsigankova gives the following definition: "The industry of sports is a functional diversified subsystem of the economy, expressing the interconnection, interaction of sport and its associated industries and fields of activity. The industry of sports includes sports, health, technical, managerial, educational and scientific organizations, as well as the industry on production goods and services of sports purpose, the mass media, etc.... when separating the sports industry into an independent subsystem of the national economy, it does not matter which department its constituent elements belong to. The main thing that allows us to consider them as a single subsystem is their functional purpose in social production — harmonious development of a person, improvement and demonstration of his/her capabilities based on selection in accordance with established rules." (Tsygankova, 2003) That is, in this case, an emphasis is placed on the general function that various business entities perform.

V.A. Lednev notes that: "The industry of sports is defined... as a sector of the market... in which economic relations between the main actors of this industry develop. In contrast to physical culture... professional sport as the main segment of the sport industry has become a new sphere of entrepreneurial activity. In industry of sports, its own production and economic activity is carried out, its specific technological processes are applied, as a result of which, various specific sports products are produced in the form of goods and services" (Lednev, 2006). It should be noted that the definition given above is a bit blurry and does not give a clear description of the object, but in this definition there is an important term for understanding the object of study - "sports product". We will consider this concept later.

S.V. Sukhov, being a student by Lednev, gives the following definition: "The industry of sports... is considered as a two-tier system of interrelated entities engaged in entrepreneurial activity in the process of production, promotion and consumption of the main product of the industry - a sporting event (spectacle). At the first (internal) level, the main actors that are directly involved in the production and consumption of a sporting event as a product are presented. At the second (external) level there are auxiliary subjects creating conditions and providing support to subjects of the first level in the process of producing a sporting event as a

product". In addition, this author indicates that the term "industry of sports" is debatable, but has been used for a long time. Sukhov notes that: "THE INDUSTRY OF SPORT (IS) is a functional, diversified economy subsystem expressing the interconnection, interaction between sports and its associated industries and fields of activity. The industry of sports is structured, within this sphere... activities are carried out by various actors that have different interests and are seeking to maximize their degree of satisfaction" (Sukhov, 2008).

It should be noted that the reasoning about the industry of sports is conducted through the prism of the structure of this industry and its product. So the following is noted: "The composition of the sports industry can be described as follows: the market of sports events; sporting goods market; sports services market; sports facilities market (sport building); sports infrastructure market; sports science; mass media; sponsorship market; the market for sports personnel (athletes and managers); the Ministry of Sport, the relevant committees in the State Duma of the Russian Federation and others, de jure not related to state bodies; licensees producing a variety of products with the official symbols of sports organizations" (Aleksunin & Baskakov, 2016).

The essence of the sports (sports and entertainment) product is described in detail enough in the paper by Ponkin and Ponkina. These authors note that: "... one of the key concepts of the industry of sports, reflecting the essence and nature of the specifics of this sphere, is the concept of a sports product" (Ponkin & Ponkina, 2016). As we noted above, the sports industry is determined through the product it produces. At the same time, these authors consider its specifics in great detail, they note "its predominantly intangible nature" (Ponkin & Ponkina, 2016). Actually, and sports product itself is characterized as follows: "A sports product is an integral concept that includes the following items: 1) intangible sports products...; 2) tangible sports products...; 3) mixed (of tangible and intangible nature) sports products...." (Ponkin & Ponkina, 2016). In addition, the following definition is given: "a sports and entertainment product is the main product of the sport as an industry, as an entertainment and leisure, cultural and recreational sphere, in which its expanded and integrated character is integrally combined with the dominance of intangible elements and the attractor (a

conjugation and convergence center) of which is the speculative and presumed uncertainty of the final results concerning the implementation of sports competition within the framework of sports events, which forms this product (as the main motivation to consume this product and its most important consumer properties) is the interest in perceiving a sporting event and information about its outcome and satisfaction of such interest, acute emotional and psychological sensations and empathy (excitement, psychological stress and, in particular, emotional stress) about the course and outcome of a sporting event, the expect and anticipation of future athletic performance, as well as expective and presumed entertainment (character of breathtaking attention, beauty and bright esthetics, pronounced high technicality, and drama) of a sporting event " (Ponkin & Ponkina, 2016).

So, we can say that we described above a marketing approach to understanding our object of research.

In addition to the above term describing our object of study, the term "physical culture and sports complex" or "sports and recreation complex" is used.

So in the dissertation of an authoritative researcher and sports manager R. B. Rotenberg, a physical culture and sports complex is considered as a set of sports organizations "carrying out an increase in a person's physical fitness,... and education his/her spiritual and volitional qualities", as well as carrying out "the process of organizing sports entertainment events, which are one of the forms of leisure..." (Rotenberg, 2009).

However, the terms "physical culture and sports complex" or "sports and recreation complex" are used to describe the sports infrastructure and sports products at the level of individual regions. So, for example, M.M. Dyakov gives the following definition: "a regional physical culture and sports complex... which... is a collection of real estate objects intended for physical culture and sports, sports organizations, companies providing fitness services (coaches, equipment), as well as specialized trade organizations carrying out wholesale and retail sale of sports equipment and equipment, and operating in a particular region " (Maksimovich, 2009). It should be immediately noted that this definition is somehow flawed, because it does

not include many elements of a physical culture and sports complex.

It can be argued that the use of the term "physical culture and sports complex" in scientific publications involves the consideration of management relations.

In addition, in scientific research, the terms "sphere of physical culture and sport", "system of physical culture and sport" are used to designate our object of research.

Thus, despite the rather large number of publications on the issues of economics, management and development of the sphere of physical fitness and sports, the scientific community does not have a common opinion on the boundaries and structure of this object.

However, having gone deep into theoretical delights, one should not forget about practice. So, the All-Russian Classifier of Economic Activities in 2018, OKVED-2 includes Section R - Activities in the field of culture, sports, leisure and entertainment. This section includes Subclass 93.1 Sports activities. The subclass of economic activities includes the following activities: activities of sports organizations; activities of sports teams or clubs participating mainly in sports events with ticket sales to viewers; the activities of independent athletes participating in sports events or auto races / rides / horseraces with ticket sales to spectators; the activities of owners of racing cars, running dogs, chasers / race horses, while the owners mainly exhibit them to participate in competitions / auto races / rides / horse races or to participate in other sports events with the audience; the activities of coaches in various sports to support participants in sports competitions and events; the activities of arena and stadium owners; other activities related to the organization, promotion or management of sports events that are not included in other groups. It may be noted that some elements of the industry of sports are not included in this subclass. For example, individual classes with coaches and teachers, which is a very common service of fitness clubs, belong to a completely different subclass (Subgroup 85.41.1).

Thus, we include the results of the activities of enterprises belonging to the OKVED Subclass 93.1 Sports activities as the object of our research. That is, our object of study to a greater

extent corresponds to the terms "physical culture and sports complex" or "the sphere of physical culture and sports"

It is noted in one of the basic economic studies of physical fitness and sports, that it is impossible to manage the development of any industry without possessing data and information about its condition, reserves and growth potential. It is necessary to reveal the patterns of development of the sphere of physical fitness and sports, to identify the main factors that affect the efficiency and effectiveness of the physical culture and sports complex (Karmanov, 1999).

It can be said that the patterns of development of our object of research can be described by considering the dynamics of its main economic indicators. So, for example, some researchers attribute the following to the basic performance indicators of organizations belonging to a physical culture and sports complex: revenues of physical fitness and sports organizations, compared with the number of residents of a settlement or area, what reflects the amount of income of the business entity in question per capita; revenues of physical fitness and sports organization, compared with the

useful or total area of the enterprise or institution, what reflects the profitability of the use of fixed assets of the organization; revenues of the physical fitness and sports organization, compared with the average annual cost of the equipment and inventory used, what reflects the return of fixed capital and the efficiency of its use; coefficient of renewal determining the share of the cost of new equipment and inventory in the total value of fixed assets at the end of a year" (Rotenberg, 2009).

We will focus on four key indicators: revenue from sales, profit (loss) from sales, the value of fixed assets, and the average number of all employees employed in the field of sports. We will get these indicators from the database of the FIRA PRO information and analytical system. Let us focus on the Southern Federal District.

We use calculation of the dynamics indicators: absolute growth, growth rates and increment rates, average growth rate and increment rate, average absolute growth for the methods of research. On the basis of the obtained results, we make a forecast of changes in indicators. We also construct the diagrams for clarity.

So, below there are the main indicators of our object of research.

Table 1. Key performance indicators in the field of sports in the Southern Federal District for 2005-2017

	Revenue (net) from sale	Profit (loss) from sales	Fixed assets	Average number of all employees
	thousand rubles	thousand rubles	thousand rubles	people
2005	385 685	-233 017	516 793	25,130
2006	476 329	-306 162	588 671	27,890
2007	752 441	-329 928	602 332	28,956
2008	534,421	-360 857	1,069,669	32,149
2009	541,828	-306 678	981 093	32,476
2010	734 999	-629 933	1,818,232	21,895
2011	1,282,560	-793 247	1,763,303	22 376
2012	2,316,483	-143,536	2,457,978	23,260
2013	3 202 096	-927,253	2,576,838	23 360
2014	2,938,214	-684 750	1,492,231	22 962
2015	5,505,014	-2 293 047	1 363 954	22,616
2016	6,993,789	-3 791 298	1,691,658	21,872
2017	6,260,278	-1 397 347	1,383,533	23,126

It can be seen from the data in the table that this field of activity is consistently at a loss.

For the entire period under consideration from 2005 to 2017, the revenue from sales in the physical culture and sports complex of the

Southern Federal District increased by 58,74593 thousand rubles or by 1523.2%.

In 2017 compared to 2016, revenue from sales decreased by 733,511 thousand rubles or by 10.5%. At the same time, the maximum

increase is observed in 2015 (2,566,800 thousand rubles), and the maximum reduction was recorded in 2017 (-733,511 thousand rubles).

The average value of the revenue from sales in the physical culture and sports complex of the Southern Federal District for the period under review amounted to 2,455,702.85 thousand rubles.

On the average, for the period from 2005 to 2017, the growth of the analyzed indicator was 1.2614 times, and, accordingly, the average growth rate was 0.2617. That is, on average, proceeds from the sales increased annually by 26.1%.

Next, we calculate the average absolute increase in revenue from sales in the physical culture and sports complex of the Southern Federal District for the period in question, which is a generalized characteristic of individual absolute gains. Every year the revenue from sales on the average increased by 489,549.42 thousand rubles, accordingly.

Based on the calculated value of the average absolute increase in revenue from sales, we accomplish the forecast for 3 years ahead.

$$y(2018) = 6260278 + 489549.42 = 6749827.42 \text{ thousand rubles.}$$

$$y(2019) = 6749827.42 + 489549.42 = 7239376.84 \text{ thousand rubles.}$$

$$y(2020) = 7239376.84 + 489549.42 = 7728926.26 \text{ thousand rubles.}$$

Next, we consider the dynamics of losses from sales in the physical culture and sports complex of the Southern Federal District. It should be noted that such a negative situation is observed not only in the Southern Federal District, but also in some other districts.

During the entire period under review, the physical culture and sports complex of the Southern Federal District suffered losses. In 2017 compared to 2005, the loss from sales increased by 1164330 thousand rubles or by 499.7%.

Over the past year, the loss from sales decreased by 2393951 thousand rubles or by 63.1%. At the same time, the maximum increase in losses was observed in 2015 (1608297 thousand rubles), and the maximum reduction in losses was recorded in 2017 (-2,393,951

thousand rubles). During the entire period under review, the physical culture and sports complex of the Southern Federal District suffered losses.

The average value of losses from sales in the physical culture and sports complex of the Southern Federal District from 2005 to 2017 amounted to 938,234.85 thousand rubles.

On average for the entire period, the analyzed indicator has grown in 1.161 times. Accordingly, the average growth rate of losses was 0.161. That is, on the average, yields from sales increased annually by 16.1%.

Every year, losses from sales increased on the average by 97027.5 thousand rubles. Based on this, we accomplish the forecast for 3 years ahead.

$$y(2018) = 1,397,347 + 97,027.5 = 1,494,374.5 \text{ thousand rubles.}$$

$$y(2019) = 1,494,374.5 + 97,027.5 = 1,591,402 \text{ thousand rubles.}$$

$$y(2020) = 1,591,402 + 97,027.5 = 1,688,429.5 \text{ thousand rubles.}$$

The next indicator is the cost of fixed assets. In 2017 compared to 2005, the value of fixed assets of the physical culture and sports complex of the Southern Federal District increased by 866,740 thousand rubles or by 167.7%. In 2017 compared to 2016, the value of fixed assets decreased by 308,125 thousand rubles or by 18, 2%. The maximum growth is observed in 2010 (837139 thousand rubles), and the maximum reduction was recorded in 2014 (-1084607 thousand rubles).

The average value of the fixed assets of the physical culture and sports complex in the Southern Federal District from 2005 to 2017 amounted to 1408175.77 thousand rubles.

On the average for the entire period, the growth of the analyzed indicator was in 1.0855 times. Accordingly, the value of fixed assets increased annually by 8.6% on the average.

Every year the value of fixed assets increased by 72,228.33 thousand rubles on the average. Based on this, we accomplish the forecast of changes in the value of fixed assets of the physical culture and sports complex in the Southern Federal District for 3 years ahead.

$y(2018) = 1383533 + 72228.33 = 1455761.33$ thousand rubles.

$y(2019) = 1455761.33 + 72228.33 = 1527989.66$ thousand rubles.

$y(2020) = 1527989.66 + 72228.33 = 1600217.99$ thousand rubles.

The last studied indicator is the average number of all employees in the physical culture and sports complex of the Southern Federal District. In 2017 compared to 2005, the average number of all employees in the physical culture and sports complex of the Southern Federal District decreased by 2004, or 8%. In 2017 compared to 2016, the average number of all employees increased by 1,254 people or by 5.7%. At the same time, the maximum increase in the number was observed in 2008 (3193 people), and the minimum increase (decrease) in the number was recorded in 2010 (-10581 people).

The average number of all employees of the physical culture and sports complex in the Southern Federal District for the period under review was 25,236 people

On the average, for the entire period, the growth of the analyzed indicator was 0.9931 times. That is, on average, the average number

of all employees decreased by 0.7% with each period.

With each period, the number of all employees in the physical culture and sports complex of the Southern Federal District decreased on the average by 167 people. Based on this, we accomplish the forecast for 3 years ahead.

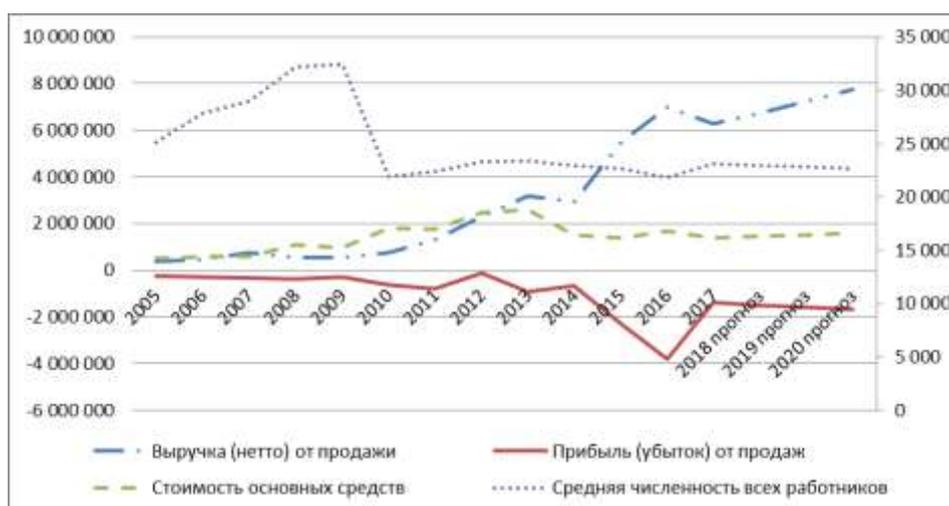
$y(2018) = 23126 - 167 = 22959$ people

$y(2019) = 22959 - 167 = 22792$ people

$y(2020) = 22792 - 167 = 22625$ people.

So, we have analyzed the dynamics of the main indicators of the physical culture and sports complex activity in the Southern Federal District. It should be noted that the physical culture and sports complex in the Southern Federal District is remarkably unprofitable. The calculated predicted values indicate an increase in losses. At the same time, losses occur against the background of a substantial increase in sales revenue and growth in the value of fixed assets. The average number of employees in the physical culture and sports complex of the Southern Federal District on average was slightly reduced annually.

For greater clarity, we construct graphs of changes in indicators and growth rates.

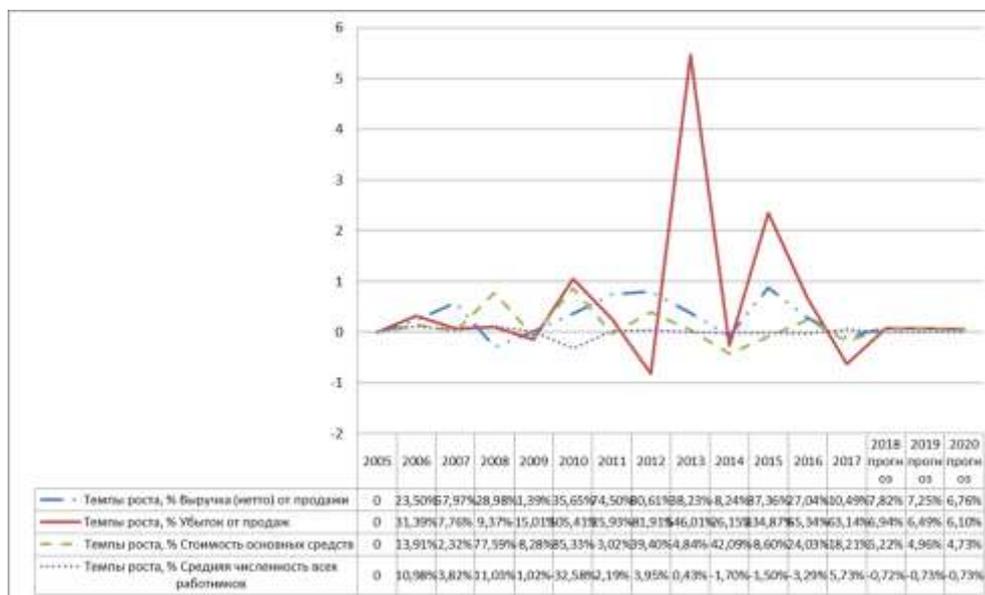


Picture 1. The main indicators dynamics for the physical culture and sports complex in the Southern Federal District for 2005-2017 and forecast for 2018 – 2020

Выручка (нетто) от продажи	Revenue (net) from sales
Стоимость основных средств	Cost of fixed assets
Прибыль (убыток) от продаж	Profit (loss) from sales
Средняя численность всех работников	Average number of all employees

The figure illustrates results of our analysis. It is clearly seen how losses are growing, despite their reduction in the period from 2016 to 2017. In addition, it should be noted that the number increased sharply until 2009, and then there was a sharp decline in the number of employees in the physical culture and sports complex of the Southern Federal District. Also noteworthy is the sharp increase in revenue after 2014. Of course, graphical analysis will not give a clear idea of the presence or absence of relationships between indicators, but we can assume its absence.

Next, we illustrate the growth rates as to the main indicators of the physical culture and sports complex in the Southern Federal District.



Темпы роста, % Выручка (нетто) от продажи	Growth rate,% Revenue (net) from sales
Темпы роста, % Убыток от продаж	Growth rate,% Loss from sales
Темпы роста, % Стоимость основных средств	Growth rate,% Cost of fixed assets
Темпы роста, % Средняя численность всех работников	Growth rate,% Average number of all employees
Прогноз	Forecast

Fig. 2. The main indicators dynamics for the physical culture and sports complex in the Southern Federal District

The figure shows that the growth rates of indicators by 2017 and during the forecast period are slowing down.

Summarizing the above material, we note the following.

First, physical fitness and sports are not only and not so much the elements of economic life, but also the means of self-realization of a person and society. Nevertheless, the economic issues of physical culture and sports are very relevant topics for research.

Secondly, there are several approaches to the description and understanding of the economic

essence of the field of sports and physical culture. In general, these approaches do not contradict each other, but for conducting quantitative research in a regional context, it is advisable to consider the sphere of physical fitness and sports as a physical culture and sports complex.

Third, choosing the main indicators of the sports complex of the Southern Federal District as the subject of the study, we analyzed the dynamics of sales revenue, profit (loss) from sales, the value of fixed assets, the average number of all employees engaged in sports.

Fourth, the analysis showed a deep and systematic unprofitability of the physical culture

and sports complex of the Southern Federal District. At the same time, sales revenue increased. That is, it can be said that in spite of numerous statements about the inclusion in the market relations of enterprises and organizations of the physical culture and sports complex, this field of activity is not effective from an economic point of view.

Fifth, by comparing the dynamics and trends in indicators, one can make an assumption that there is no relationship and interaction between the economic indicators we considered.

Thus, in our opinion, it makes sense to continue research in this area. For example, this paper contains enough data to calculate the Cobb-Douglas production function, which will allow us to estimate the impact of labor and fixed assets on the results of operations. It is important to identify growth points, that is, elements of a physical culture and sports complex, where there is economic potential. In addition, it should be similar to the other federal districts.

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