

Artículo de investigación

Analysis of russian medium-size enterprises in the context of federal districts and major municipalities

Análisis de las medianas empresas rusas en el contexto de los distritos federales y los principales municipios

Análise de empresas de médias empresas da Rússia na conexão dos distritos federais e principais municípios

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Abstract

The article examines the trends in the number of medium-sized enterprises in Russia, in the context of federal districts and major municipalities. Detailed information is provided on the number and dynamics of medium-sized enterprises in Russia by federal districts and the largest municipalities for the period from 2008 to 2017. The indicators of the number of employees, labor efficiency and revenues of medium-sized businesses are considered. Developed by the authors and presented in the article, the map of medium-sized businesses allows you to make both management decisions to state and municipal authorities, and make investment decisions.

Keywords: business in Russia, medium-sized business dynamics, medium-sized business structure, main indicators of medium-sized businesses, Russia, federal districts, Moscow, St. Petersburg, medium-sized business map.

Resumen

El artículo examina las tendencias en el número de empresas medianas en Rusia, en el contexto de los distritos federales y los principales municipios. Se proporciona información detallada sobre el número y la dinámica de las medianas empresas en Rusia por los distritos federales y los municipios más grandes durante el período de 2008 a 2017. Los indicadores de la cantidad de empleados, la eficiencia laboral y los ingresos de las medianas empresas son considerados. Desarrollado por los autores y presentado en el artículo, el mapa de las medianas empresas le permite tomar decisiones de gestión ante las autoridades estatales y municipales, y tomar decisiones de inversión.

Palabras clave: negocios en Rusia, dinámicas de negocios medianas, estructura de negocios de tamaño mediano, principales indicadores de medianas empresas, Rusia, distritos federales, Moscú, San Petersburgo, mapa de negocios medianos.

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Resumo

O artigo examina as tendências no número de empresas de médio porte na Rússia, no contexto de distritos federais e grandes municípios. Informações detalhadas sobre o número e a dinâmica das empresas de médio porte na Rússia são fornecidas pelos distritos federais e os maiores municípios durante o período de 2008 a 2017. Os indicadores do número de funcionários, a eficiência da mão-de-obra e a renda das medianas Empresas são consideradas. Desenvolvido pelos autores e apresentado no artigo, o mapa de empresas de médio porte permite que eles tomem decisões de gestão perante as autoridades estaduais e municipais e tomem decisões de investimento.

Palavras-chave: negócios na Rússia, dinâmica de empresa de médio porte, estrutura de negócios de médio porte, principais indicadores de médias empresas, Rússia, distritos federais, Moscou, São Petersburgo, médio mapa de negócios.

Introduction

In this article we will consider the generalized results of medium-sized enterprise state in Russia in the context of federal districts and the largest cities.

In modern practice of economy state regulation, enterprises are classified into three groups depending on their size: small, medium and large ones. Besides, at present, it has become customary to single out the fourth group - microenterprises.

Traditionally, it is customary to pay a significant attention to small and medium-sized enterprises (SMEs) in the state and municipal management. In Russian legislation, the following definition is given to small and medium-sized enterprises: "the subjects of small and medium-sized enterprises - economic entities (legal entities and individual entrepreneurs), classified in accordance with the conditions established by ... Federal Law No. 209-FL, to small enterprises, including microenterprises, and medium-sized enterprises" (Osipov et al, 2017).

The specific values of the criteria for classifying a business as a group are regularly reviewed by the relevant departments and ministries. At present the criteria are in effect in Russian Federation concerning the allocation of medium-sized enterprises, established by the Federal Law "On the Development of Small and Medium-Sized Enterprises in Russian Federation" No. 209-FL issued on July 24, 2007 (with amendments and supplements, issued on 01.08.2017), and also "The Resolution of RF Government N 265 "On the marginal values of income received from the implementation of entrepreneurial activities for each category of small and medium-sized businesses" issued on 04.04.2017, the Federal Law "On the Innovation Center "Skolkovo" N 244-FL (last version) issued on 09/28/2010, the RF Government Decree No. 1459-r "On the approval of the list of legal entities that provide state support to innovation" issued on July 25, 2015 (Edited on October 15, 2017), the Resolution of RF Government N 1335 (Edited on April 19, 2017) "On the approval of the Rules for the inclusion of legal entities in the list of legal entities that provide state support for innovation activities in the forms established by the Federal Law "On Science and State Science and Technology Policy" issued on 08.12.2014. It should be noted that these normative acts, in fact, determine the quantitative basis to classify an enterprise as a medium-sized business entity (Zilbershtein & Nevstruev, 2017; Zilbershtein et al, 2017).

In addition to quantitative criteria (the share in the authorized capital of an enterprise of third parties, the maximum value of the average number of people and the value of income received from the performance of entrepreneurial activities for the previous calendar year), given in the abovementioned normative acts, qualitative criteria (innovativeness of an enterprise or its owners) are applied.

In terms of revenues, "microenterprises include the organizations with the revenues of up to 120 million rubles (60 million rubles), small business - with the revenues of up to 800 million rubles (400 million rubles), average business - up to 2 billion rubles (earlier up to 1 billion rubles rubles)" (Osipov et al, 2017). In terms

of the average number of employees: 15 or less employees - microenterprises; from 16 - 100 employees - a small company; 101 - 250 - an average enterprise.

At the same time, it is noted that: "The main disadvantages of quantitative approaches are the absence of a theoretical basis determining the choice of a particular indicator and the limits of its measurement, and in this regard the difficulties of their use for comparative analysis." (Zilberstein et al, 2015).

The structure of medium-sized businesses in the context of federal districts and major municipalities Turning directly to the consideration of the average business structure in Russia, it should be noted that according to the Federal State Statistics Service, 2241659 subjects of small and medium-sized businesses were registered in Russia (2015), of which 1,467,476 entities operate. Thus, only 65.5% of SMEs operate. It should be pointed out that among these enterprises there are 18839 medium-sized businesses (despite the fact that 19,300 are registered in total). In its turn, according to the Single Interdepartmental Information and Statistical System (SIISS), the number of medium-sized enterprises in 2015 was 15,492 units, and according to the Single Register of Small and Medium Enterprises of the Federal Tax Service, it MADE 19980 (20352 including IE) units as of 01.08.2017 and 20534 (20935 including IE) of enterprises as of 10.02.2017 (Zilbershtein & Nevstruev, 2017). For comparison, there were 25170 operating medium business enterprises in 2010. At the same time, the number of registered individual entrepreneurs was 3776393 people or 2999411 as of October 1, 2017.

The structure of medium, small and micro businesses in Russia is shown below (Figure 1) by the number of enterprises in 2015. The figure shows that the share of medium-sized businesses is about one percent of the total number of small and medium-sized enterprises. At the same time, micro enterprises account for the largest proportion. However, 5,043,600 enterprises were registered in Russia, of which 322,700 were government and municipal ones, 4327,800 were private ones, and 31,600 were of mixed ownership (Osipov et al, 2017). Thus, the share of all micro, small and medium-sized businesses in the total number of private enterprises is 51.21%, while the share of medium-sized enterprises makes only 0.43%.

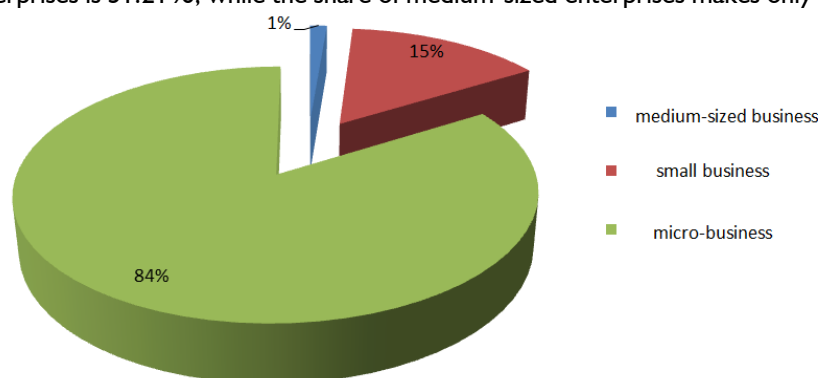


Figure 1. The structure of medium, small and micro business in Russia in 2015 (the number of enterprises)⁵¹

It should be noted that the largest number of small and medium-sized businesses is concentrated in the Central Federal District (including Moscow) - 446811 enterprises, of which medium-sized businesses make 6099 enterprises. Further, the Privolzhsky Federal District (PFD), which has only 271704 small and medium-sized enterprises, of which medium-sized enterprises make 3690. The third largest number of small and medium-sized enterprises is the North-West Federal District (NWFD) (including St. Petersburg). There are 203469 small and medium enterprises there, of which medium-sized enterprises make 2244. The Siberian Federal District (SFD) is the fourth largest in terms of small and medium-sized enterprise number. There are 188783 enterprises of small and medium business there, of which 2159 are medium-sized ones. Further, the Urals Federal District (UFD), which has 140530 of medium and small enterprises, of which medium-sized enterprises make 1676. The Southern Federal District (SFD) has 107469 enterprises of small and medium-sized businesses, of which medium-sized enterprises make 1480. The Far

⁵¹ Составлено авторами по: Сплошное наблюдение за деятельностью малого и среднего бизнеса за 2015 год. URL: http://www.gks.ru/free_doc/new_site/business/prom/splosh.html

East federal district (FEFO) has 65171 subjects of small and medium-sized businesses, of which medium-sized enterprises make 769. The penultimate in the list is the North Caucasian Federal District (NCFD), in which there are 28043 small and medium-sized enterprises, 561 of them are medium ones. Crimea has 15424 subjects of small and medium business, including 161 medium enterprises.

In 2017, as compared to 2015, the number of medium-sized enterprises in Russia increased by 816 entities or by 5.3%. The maximum growth for the analyzed period is observed in 2010 (the increase by 870 entities), and the minimum growth was recorded in 2012 (the reduction by 1877 entities). The dynamics and the number of medium-sized enterprises in Russia are shown below.

In 2017, as compared with 2008, the number of medium-sized enterprises in Russia decreased by 1079 entities or by 6.2%. The average value of the number of medium-sized enterprises in Russia from 2008 to 2017 was 16,700.89 subjects. On average, the number of medium-sized enterprises in Russia was reduced by 0.8% annually. That is, every year the number of medium-sized enterprises in Russia decreased by 135 subjects on average.

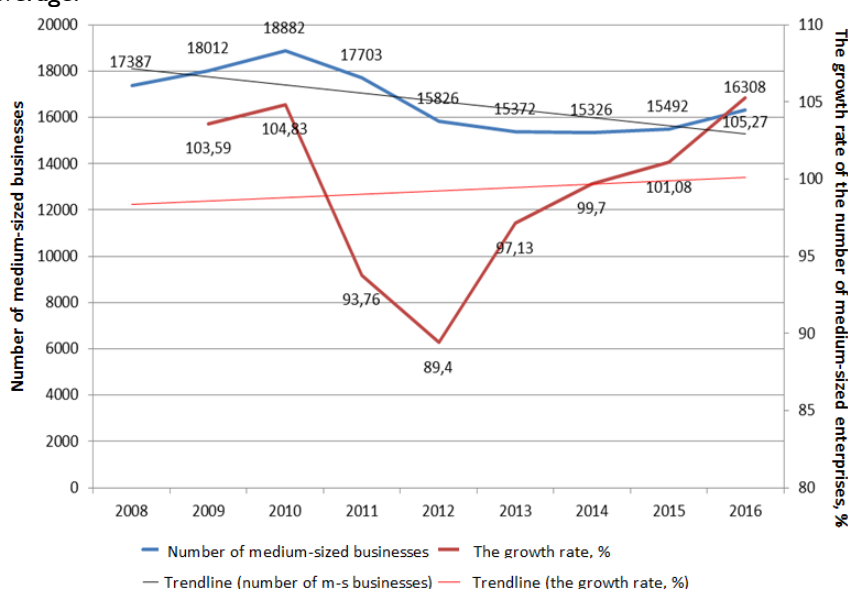


Figure 2. The number and the dynamics of medium-sized enterprises in Russia during 2008 - 2017

Based on the available data, we can perform the following forecast for one period ahead, using the average growth rate:

$$\begin{aligned}
 y(2017) &= 16308 \cdot 0.992 = 16173.12 \\
 y(2018) &= 16173.12 \cdot 0.992 = 16043.74 \\
 y(2019) &= 16043.74 \cdot 0.992 = 15915.35516
 \end{aligned}$$

Thus, in 2017 the number of medium-sized business subjects in Russia will be 16,173 enterprises, in 2018 - 16044, and in 2019 - 15915.

The table below (Table 1) characterizes the dynamics of medium-sized enterprise number in Russia by federal districts and the largest cities in 2008 - 2017.

Table 1. Dynamics of medium-sized enterprise number in Russia by federal districts and the largest cities in 2013 - 2017⁵²

	2008	Per., %	2009	Per., %	TP, % 09/08	2010	Per., %	TP, % 10/09	2011	Per., %	TP, % 11/10	2012	Per., %	TP, % 12/11	2013	Per., %	TP, % 13/12	2014	Per., %	TP, % 14/13	2015	Per., %	TP, % 15/14	2017	Per., %	TP, % 15/16
Russian Federation	17387	100	18012	100	103,59	18882	100	104,83	17703	100	93,76	15826	100	89,4	15372	100	97,13	15326	100	99,70	15492	100	101,08	16308	100	105,27
Central Federal District	4576	26,32	4777	26,52	104,39	4952	26,23	103,66	4543	25,66	91,74	3892	24,59	85,67	3767	24,51	96,79	3905	25,48	103,66	3806	24,57	97,46	4166	25,55	109,46
North-West Federal District	1688	9,71	1840	10,22	109	1831	9,70	99,51	1670	9,43	91,21	1575	9,95	94,31	1539	10,01	97,71	1578	10,3	102,53	1598	10,32	101,27	1778	10,90	111,26
Southern Federal District (since 2010)						1963	10,40		1981	11,19	100,92	1662	10,50	83,90	1587	10,32	95,49	1533	10,0	96,60	1472	9,50	96,02	1559	9,56	105,91
North-Caucasian Federal District						536	2,84		541	3,06	100,93	483	3,05	89,28	457	2,97	94,62	455	2,97	99,56	439	2,83	96,48	508	3,12	115,72
Volga region Federal District	4334	24,93	4027	22,36	92,92	4086	21,64	101,47	3812	21,53	93,29	3501	22,12	91,84	3464	22,53	98,94	3295	21,5	95,12	3383	21,84	102,67	3532	21,66	104,40
Ural federal district	1367	7,86	1506	8,36	110,17	1565	8,29	103,92	1428	8,07	91,25	1451	9,17	101,61	1376	8,95	94,83	1419	9,26	103,13	1479	9,55	104,23	1530	9,38	103,45
Siberian Federal District	2396	13,78	2755	15,3	114,98	3203	16,96	116,26	3018	17,05	94,22	2582	16,31	85,55	2477	16,11	95,93	2441	15,93	98,55	2400	15,49	98,32	2281	13,99	95,04
Far Eastern Federal District	788	4,53	718	3,99	91,12	746	3,95	103,90	710	4,01	95,17	680	4,30	95,77	705	4,59	103,68	700	4,57	99,29	714	4,61	102,00	755	4,63	105,74
Crimean Federal District																				201	1,30			199	1,22	99,00
Moscow	1078	6,20	923	5,12	85,62	986	5,22	106,83	853	4,82	86,51	743	4,69	87,10	707	4,60	95,15	705	4,60	99,72	667	4,31	94,61	924	5,67	138,53
St. Petersburg	636	3,66	602	3,34	94,65	556	2,94	92,36	504	2,85	90,65	491	3,10	97,42	498	3,24	101,43	503	3,28	101,00	562	3,63	111,73	719	4,41	127,94

⁵² Таблица составлена авторами по: Количество средних предприятий (включая территориально-обособленные подразделения) по 2017 г. // Единая межведомственная информационно-статистическая система. URL: <https://www.fedstat.ru/indicator/31156?id=31156>

From the data presented in the previous table (Table 1) it can be seen that for the submitted period, the largest number of medium-sized enterprises is concentrated in the Central Federal District, and the smallest number of medium-sized businesses is located in the Crimean and North Caucasus federal districts.

Let us consider the dynamics of medium-sized enterprise number in the federal districts of Russia in more detail.

On average, the average number of medium-sized enterprises in the Central Federal District fell by 1.2% per year. That is, every year the number of medium-sized enterprises in the Central Federal District decreased by 51 subjects on average.

The medium-sized enterprises of Moscow are included by Rosstat in the statistics of the Central Federal District. However, due to the fact that Moscow is ahead of, for example, the Far Eastern Federal District by the number of medium-sized enterprises we will consider it separately. On average, the number of medium-sized businesses in Moscow fell by 1.9% annually. Thus, every year the number of medium-sized businesses in Moscow decreased by 19 enterprises on average.

The second place after the Central Federal District is occupied by the Privolzhsky Federal District by the number of medium-sized enterprises. On average, the number of medium-sized businesses in the Volga Region Federal District decreased by 2.5% annually. That is, every year the number of medium-sized enterprises in the Volga Federal District decreased by 100.25 subjects on average.

Further, the Siberian Federal District is the largest one by the number of medium-sized enterprises. On average, the number of medium-sized enterprises in the Siberian Federal District decreased by 0.6% annually. That is, every year the number of medium-sized enterprises in the Siberian Federal District decreased by 14.38 enterprises on average.

Then the North-West Federal District is presented. On average the number of medium-sized enterprises in the North-West Federal District increased by 0.6% annually.

We will present the data on St. Petersburg separately. On average, the number of medium-sized businesses in St. Petersburg increased by 1.6% annually. That is, every year the number of medium-sized businesses in St. Petersburg increased by 10.38 subjects on average.

Next, let's consider the Southern and Ural Federal Districts. On average, the number of medium-sized enterprises in the Southern Federal District is decreased by 3.8% annually. Every year the number of medium-sized enterprises in the Southern Federal District decreased by 67.33 on average.

In the Urals Federal District the number of medium-sized enterprises increased by 1.4% annually on average. Thus, every year the number of enterprises in the Urals Federal District increased by 20.38 enterprises on average.

On average, the number of medium-sized businesses in the Far Eastern Federal District decreased by 0.5% per year.

In the North Caucasus Federal District, the average number of medium-sized enterprises declined by 0.9% annually. That is, each year the number of medium-sized enterprises in the North Caucasus Federal District decreased by 4.67 subjects on average.

Thus, the analysis of the number of medium-sized enterprises dynamics in Russia in the context of federal districts showed that only two federal districts (the North-West Federal District and the Urals Federal District) and one megapolis (St. Petersburg) have a positive dynamics in the number of medium-sized enterprises over the analyzed period. At the same time, the number of medium-sized enterprises throughout Russian Federation decreased by 0.8% on average annually, or by 135 medium-sized businesses. The highest average annual rate of decline of enterprise number is in SFD (3.8%). At that, in

absolute terms, the number of medium-sized enterprises in the Volga Region Federal District decreased on average by 100 enterprises per year. The smallest average annual rate of medium-sized enterprise decline is in the Far Eastern Federal District.

Next, let's consider the indicators of personnel number, labor efficiency and the revenues of medium-sized businesses in 2010 and 2015 (Zilbershtein & Nevstruev, 2017). It should be noted again that Rosstat data differ from the abovementioned data of the Single Interdepartmental Information and Statistical System. However, their general orientation and trends coincide.

The dynamics of replaced job number at medium-sized enterprises in Russia, can be seen in the following table in general, by federal districts, as well as by the largest cities (Table 2).

Table 2. The dynamics and the structure of replaced job number in the regional context in 2010 and 2015

	2010	Percentage	2015	Percentage	TP of replaced job number	Δ of percentage
Central Federal District	752800	29,14%	658697	30,23%	87,50%	1,08%
North-West Federal District	274900	10,64%	244765	11,23%	89,04%	0,59%
Southern Federal District	232000	8,98%	175595	8,06%	75,69%	-0,92%
North-Caucasian Federal District	76300	2,95%	64946	2,98%	85,12%	0,03%
Volga region Federal District	578200	22,38%	456634	20,95%	78,98%	-1,43%
Ural federal district	210800	8,16%	197760	9,07%	93,81%	0,91%
Siberian Federal District	357900	13,86%	267769	12,29%	74,82%	-1,57%
Far Eastern Federal District	100100	3,88%	90697	4,16%	90,61%	0,29%
Crimean Federal District	0	0,00%	22407	1,03%	-	1,03%
Moscow	220700	8,54%	223639	10,26%	101,33%	1,72%
Saint Petersburg	116400	4,51%	125878	5,78%	108,14%	1,27%
Total in Russia	2583000	100%	2179270	100%	84,37%	-

The growth rates of indicators are presented in the following figure (Figure 3). It can be seen from the figure that the leaders in terms of growth rates are the Southern Federal District, the North Caucasian and the Ural Federal District. Thus, on average, the total revenue of all medium-sized enterprises increased by 39.84% in Russian Federation; in the Central Federal District by 37.28%; in the North-West Federal District by 30.71%; in the Southern Federal District by 52.81%; in the North Caucasus Federal District by 71.66%; in the Volga Region Federal District by 34.21%; in the Urals Federal District by 93.42%; in the Siberian Federal District by 16.75%; in the Far Eastern Federal District by 40.14%; in Moscow by 26.39%; in St. Petersburg by 34.71%.

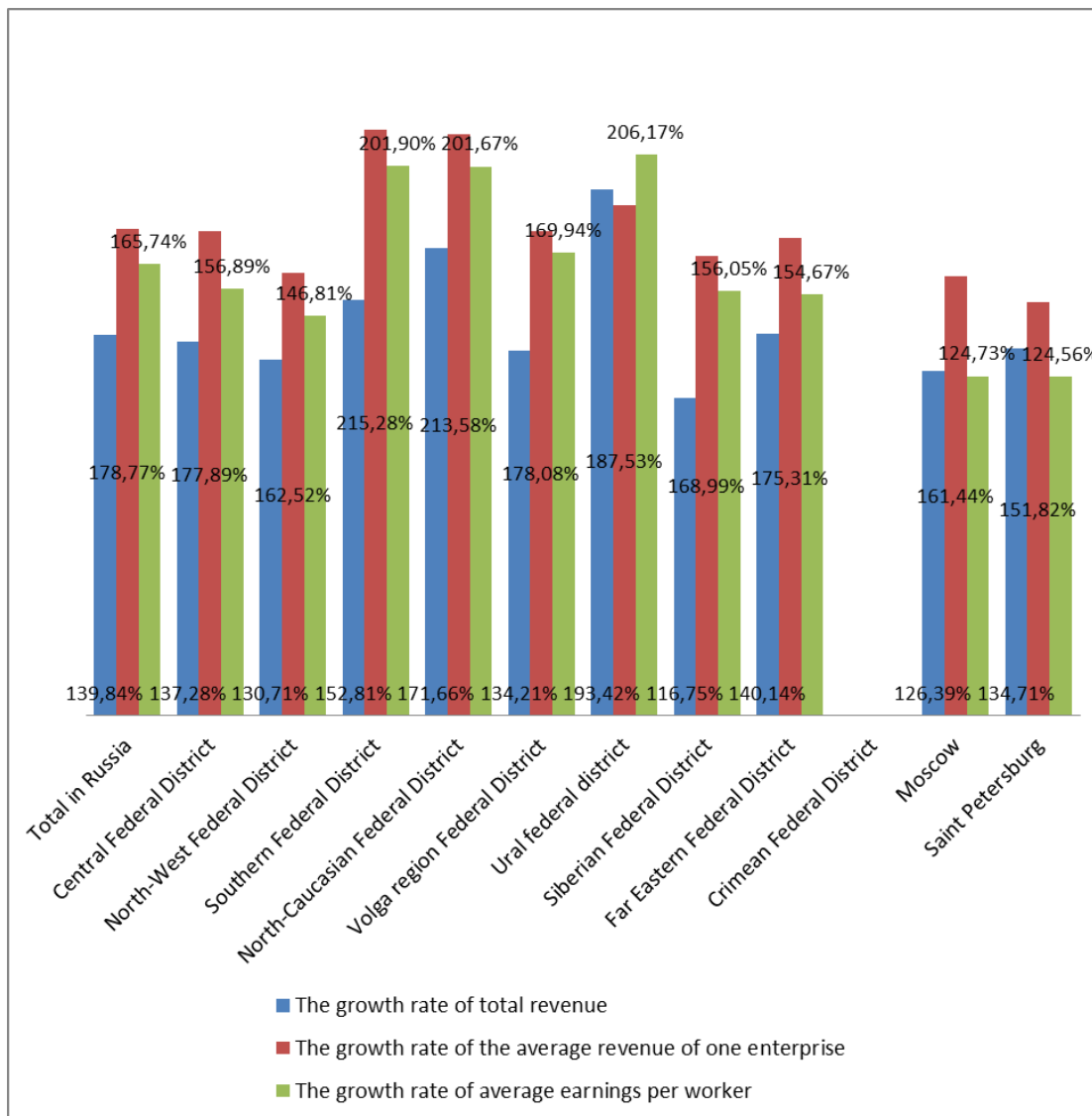


Figure 3. – The growth rate of the average business revenue in the regional context for 2010 and 2017.

It should be noted that the calculation of correlation coefficients showed the presence of a highly multidirectional statistical relationship between the average number of employees per enterprise and the revenue per enterprise, as well as the productivity of one worker (in 2010, the correlation coefficient of productivity and the average number of employees at one enterprise was -0.936052355 , and in 2017 it was -0.970052639 , respectively, the correlation coefficient of revenue per enterprise and the average number of employees employed at one enterprise made -0.855193743 and -0.941940078).

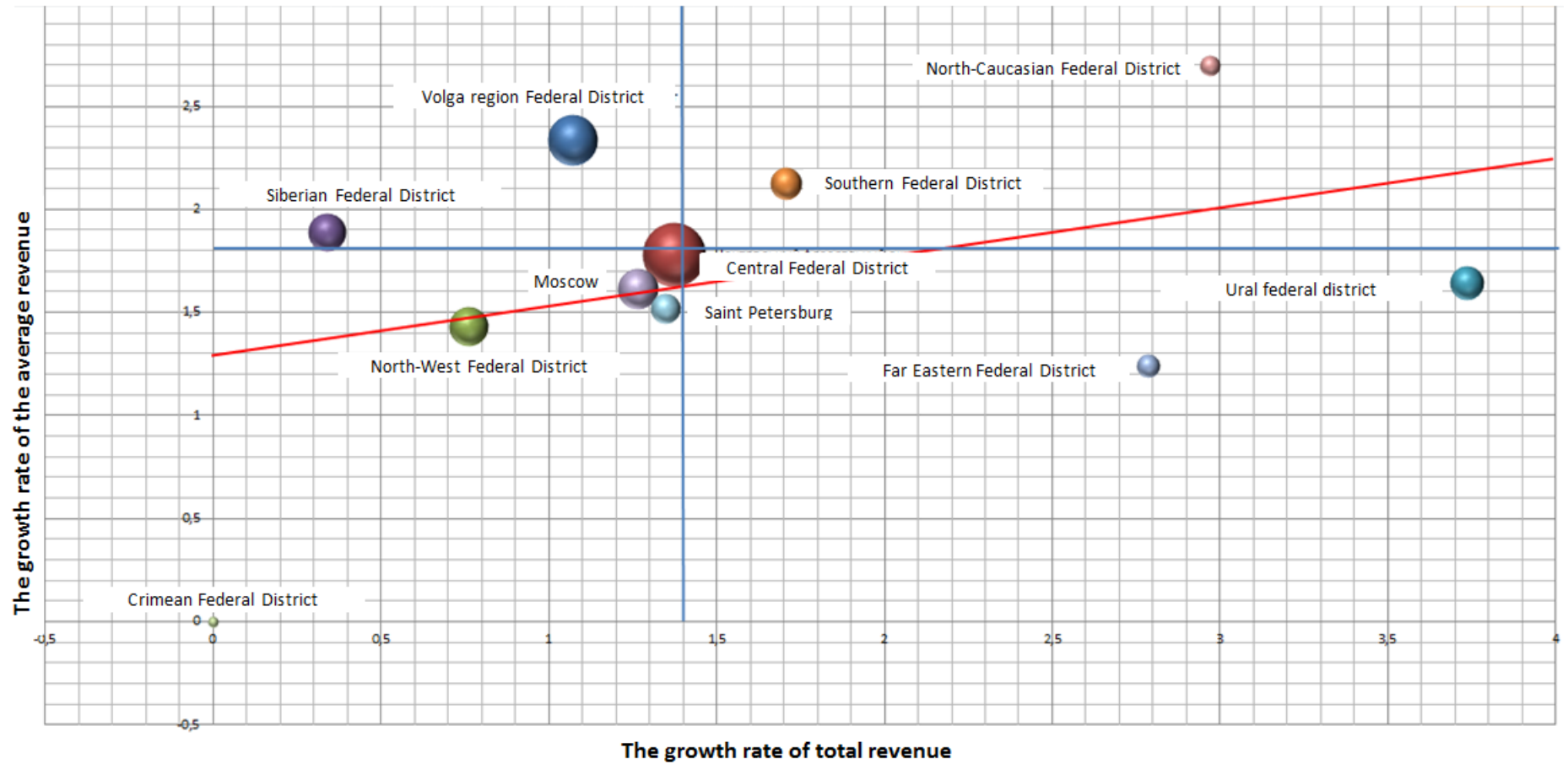


Figure 4. The map of medium-sized business in Russia

The statistical relationship between the productivity of one employee and the revenue per enterprise is strong and direct (in 2010 - 0.968616541, and in 2015 - 0.979477657).

The map of medium-sized businesses in Russia

Concluding the analysis of medium-sized business structure in the regional context, let's present the map of the average Russian business (Figure 4) in the form of a bubble chart. On the ordinate axis we will postulate the growth rates of the average revenue per enterprise, and on the abscissa, we will show the growth rate of the total revenue. The size of a "bubble" corresponds to the number of enterprises in a federal district.

Estimating the map of medium-sized businesses in Russia in the context of federal districts, presented in the figure above, a number of conclusions can be drawn. The map is divided into four segments. The bottom left segment up to the trend line (highlighted in red) characterizes the deep decline of medium-sized businesses. The lower left segment from the trend line to the mean value demonstrates an unsatisfactory state. In general, medium-sized businesses of those regions that belong to the lower left quadrant can be described as inefficient and operating in an inefficient institutional environment. The upper left square demonstrates the general unsatisfactory state of an enterprise quite effectively, but they are affected by negative external factors. The upper right-hand square has effective medium-sized enterprises of those regions with a comfortable external environment. The enterprises of those regions that fall into the lower right segment are inefficient, but operate in a favorable external environment.

Conclusions

It should be noted that the number of operating enterprises decreased during the analyzed period. Similarly, the number of employed at medium-sized businesses decreased. At that, the average number of employees of one medium-sized business increased everywhere in the region except for Moscow and St. Petersburg. Besides, the number of employees per one medium-sized business increased by about 6% in Russia.

The indicators of total and average revenues also increased during this period. Nevertheless, there is the need to take into account the change in the value of currencies for the analyzed period and the level of inflation during the evaluation of medium-sized business revenue dynamics.

The medium-sized business map developed by us allows us to group medium-sized enterprises in regions and major municipalities, which in its turn can serve as the basis for the adoption of macroeconomic, investment and management decisions.

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