The development of small and medium-sized businesses, as the basis for a balanced development of agriculture in Russia

Victoria Yushkova\textsuperscript{1,*}, Gennady Kostin\textsuperscript{1}, Roman Davydov\textsuperscript{2}, Sergey Rud\textsuperscript{2,3}, Valentin Dudkin\textsuperscript{4}, and Lenar Valiullin\textsuperscript{3}

\textsuperscript{1}Saint Petersburg University of Management Technologies and Economics, 190109, Saint Petersburg, Russia
\textsuperscript{2}Peter the Great Saint Petersburg Polytechnic University, 195251, Saint Petersburg, Russia
\textsuperscript{3}All Russian Research Institute of Phytopathology, 143050, Moscow Region, Russia
\textsuperscript{4}The Bonch-Bruevich Saint Petersburg State University of Telecommunications, 193232, Saint Petersburg, Russia

Abstract. The article of the current state of small and medium-sized enterprises in the Russian Federation is discussed. Particular attention is paid to the problems solving of small and medium-sized businesses in rural areas. The main reasons that impede the innovative development of small and medium-sized businesses in rural areas are determined. The proposals to improve the efficiency of small and medium-sized businesses in the Russian Federation are presented.

1 Introduction

In modern conditions, an important source of economic growth is the development of small and medium-sized businesses [1-7]. The world experience in the development of countries that are the main producers of agricultural products shows the high efficiency of small and medium enterprises in agriculture [8-9]. These enterprises are more compact and well managed. Then structure promptly responds to any changes (for example, climatic conditions, changes in supply and demand, etc.) [6, 11-13]. They can afford to use environmentally friendly production technologies [14-18]. They promptly conduct environmental monitoring of territories and products [19-25]. Small and medium-sized businesses are actively introducing, especially in rural areas, developments in the field of hydraulic structures [26-29] and solar energy [30-36]. An increase in the number of small and medium enterprises in agriculture increases the number of jobs, improves the quality of products, improved the socio-economic situation of the population [1-9, 37-39].

A priority in the economic policy of the Russian Federation is the development of small and medium-sized businesses, especially in rural areas. An analysis of the economies of

*Corresponding author yushkova.vv@mail.ru
developed countries of the world shows that without the dynamic and sustainable development of agriculture, the state cannot move forward [1–9, 37–46].

2 The Analysis of the state of small and medium-sized businesses and its role in agriculture

In modern society, especially in the sphere of small and medium-sized businesses, it most often applies new business models and innovative technologies in practice [1-5, 37-39, 42, 43]. In conditions of compact and operational management in agriculture, this makes profit much faster than in a large enterprise.

It should also is noted that small and medium-sized businesses very quickly find new opportunities for their development and profitmaking, using the intellectual potential of the company [6, 12, 44-46]. In agriculture, this fact is very relevant. Many developments and proposals have been without movement for years. Then find their way into mass use only after its successful implementation in small and medium enterprises.

This sector of the economy, especially in agriculture, continues to experience serious difficulties. This happens despite the implementation of annual state programs to support business entities. The various difficulties are associated with poor protection of small and medium-sized businesses from the influence of various negative factors.

The main one is associated with limited resources for the development of production and, as a consequence, instability to external influences. It’s easier to close a business than deal with a crisis. This happens quite often in agriculture.

The priority national goals of the Russian Federation in accordance with Presidential Decree "On the national goals and strategic objectives of the Russian Federation for the period till 2024" dated May 7, 2018 is the entry of the Russian Federation into the number of the largest economies in the world and ensuring economic growth rates higher than the world ones, especially in agriculture. The priority areas of national goals of the Russian Federation of according to this decree are the digital economy, small and medium-sized businesses and support for individual entrepreneurial initiatives.

The according to statistics from Rosstat and the Ministry of Economic Development, the contribution of small and medium-sized businesses to the Russian economy in 2014 was 19%, in 2015 was 19.9%, in 2016 was 21.6%, in 2017 was 21.9%. In 2018, due to the crisis, the contribution decreased to 21.7%. In most Western countries, the share of small and medium enterprises in gross domestic product (GDP) is more than 50%. For example, in Germany was 53%, in Sweden was 58%, in Italy was 68%.

The share of Russian small and medium enterprises in GDP remains insignificant (2 times lower than in developed countries). In agriculture, the difference is more than 20 times. The main factor in the growth of the number of enterprises in the western countries in the agricultural sector is the active state support, reduction of various administrative barriers, as well as the formation of a real infrastructure.

The according to the Unified Register of the Russian Federation on small and medium-sized businesses, the following information is obtained. The total number of legal entities and individual entrepreneurs, as of 10.07.2019, amounted to 6,212,137 entities. They are divided as follows:

- legal entities - 2,764,114: small enterprises 2,746,053 (of which 2,528,680 micro-enterprises) and medium-sized enterprises 18,061;
- individual entrepreneurs - 3,448,023: small enterprises 3,447,707 (of which 3,421,032 are microenterprises), 316 medium-sized enterprises.
More complete information is presented in table 1. Of all small and medium-sized businessmen, less than 1% actually work in agriculture.

A comparative chart of the number of legal entities and individual entrepreneurs, according to the Unified Register of the Russian Federation of small and medium-sized enterprises, is presented in Figure 1.

**Table 1.** The number of business entities and sole proprietaries, as of 10.07.2019 in the Russian Federation.

| Federal district      | Business entity | Sole proprietor | Total |
|-----------------------|-----------------|-----------------|-------|
|                       | Micro | Small | Medium | Total | Micro | Small | Medium | Total |
| Central               | 894 846 | 78 569 | 7 109 | 980 524 | 950 777 | 6 113 | 81 | 956 971 | 1 937 495 |
| North-western         | 353 768 | 28 135 | 2 155 | 384 058 | 345 534 | 2 315 | 27 | 347 876 | 731 934 |
| Southern              | 191 647 | 16 934 | 1 382 | 209 963 | 512 762 | 3 428 | 26 | 516 216 | 726 179 |
| North-Caucasian       | 45 277 | 4 251 | 419 | 49 947 | 156 172 | 787 | 9 | 156 968 | 206 915 |
| Volga                 | 437 346 | 40 202 | 3 197 | 480 745 | 617 900 | 6 164 | 74 | 624 138 | 1 104 883 |
| Ural                  | 214 883 | 17 690 | 1 419 | 233 992 | 291 457 | 2 618 | 33 | 294 108 | 528 100 |
| Siberian              | 271 405 | 21 768 | 1 711 | 294 884 | 356 926 | 3 219 | 38 | 360 183 | 655 067 |
| Far Eastern           | 119 508 | 9 824 | 669 | 130 001 | 189 504 | 2 031 | 28 | 191 563 | 321 564 |
| Total                 | 2 528 680 | 217 373 | 18 061 | 2 764 114 | 3 421 032 | 26 675 | 316 | 3 448 023 | 6 212 137 |

In figure 2 the number of small and medium-sized businesses as of July 2019 is represented. These data are obtained from a single register of small and medium-sized enterprises of the Federal Tax Service of the Russian Federation. According to statistics, the Central Federal District takes first place and makes up 31% of the total number of small and medium-sized businesses in the Russian Federation.

![Fig. 1.](image-url) The comparative chart of the number of legal entities and individual entrepreneurs.
Fig. 2. The number of small and medium-sized businesses in July 2019.

An analysis of this diagram shows a difficult to explain distribution of enterprises by Russian regions. More interesting information allows you to get the data presented in Fig. 3.

Fig. 3. The turnover structure in the small and medium business sector by type of economic activity in 2018.
An analysis of the results shows that the sector of agriculture with forestry, hunting, and fishing accounts for less than 1.6% of the total number of small and medium enterprises. In developed western countries, where there is almost no hunting and fishing, this percentage is at least an order of magnitude higher.

3 Innovative directions of development of small and medium-sized businesses in the Russian Federation

The reasons for the imbalance in the development of small and medium-sized businesses in various fields can be found in the data of the All-Russian Center for the Study of Public Opinion. On these data based, as well as a review of domestic and foreign studies of various authors, we can conclude.

Small and medium-sized businesses are one of the main driving forces of the economic life of society, which can have a significant impact on their level and quality of life. In rural areas, this process is particularly pronounced.

In addition, world experience shows that the commercial implementation of scientific research occurs only with the active development of the intellectual property market.

Given the features of the Russian Federation, for the development of small and medium-sized businesses in rural areas, multidisciplinary studies with practical testing are needed. In Russia so far, the bulk of the research is done for the sake of research itself. The lack of an intellectual property market does not allow the commercial implementation of scientific research. In some cases, research is divorced from reality. And the use of their results causes harm and losses to small and medium-sized businesses.

On the other hand, the research results showed that for the innovative development of small and medium-sized businesses in the rural areas of the Russian Federation, it is necessary to solve a number of tasks:

- the improving the conditions for tax reporting for small and medium-sized enterprises;
- the assisting in the promotion of goods and services;
- the improvement of the system of procurement of agricultural products by state bodies from small and medium-sized enterprises;
- the creation of a support and development system for small and medium-sized agricultural producers;
- the introduction of a new tax regime.

This should be addressed now, as work in the countryside is considered one of the most difficult. Every year, people are becoming less and less involved in agriculture in Russia.

4 Conclusions

The solving the tasks set in the development of small and medium-sized businesses in the Russian Federation will facilitate a number of socio-economic problems that have developed in the market, especially in rural areas. Firstly, small and medium-sized businesses will be able to ensure the formation of a competitive environment. Thirdly, the number of new jobs will increase. Fourth, businessmen is the basis for the formation of the middle class of the country's population.

In order to give the right vector in the direction of development and sustainable growth of small and medium-sized businesses in Russia, it is necessary not only a reasonable and
rational impact from the state, but also people's faith in the success of their business. The prospects for work in agriculture.

The effective regulation and creation of conditions for the development of small and medium-sized enterprises in the rural areas of the Russian Federation is one of the important state priorities at the present stage of economic development.

References

1. T. Fejling, E. Torosyan, O. Tsukanova, O. Kalinina, IOP Conference Series: Materials Science and Engineering, 497(1) 012027 (2019)
2. V. Vilken, O. Kalinina, S. Barykin, E. Zolotova, IOP Conference Series: Materials Science and Engineering, 497(1) 012037 (2019)
3. O. Kalinina, E. Balchik, S. Barykin, MATEC Web of Conference, 239 04021 (2018)
4. V. Vilken, O. Kalinina, A. Dubgorn, E35 Web of Conference, 33 03012 (2018)
5. A. Bril, O. Kalinina, A. Levina, E35 Web of Conference, 33 03004 (2018)
6. R. Davydov, M. Sokolov, W. Hogland, A. Glinushkin, A. Markaryan, MATEC Web of Conference, 245 11003 (2018)
7. I.A. Zharikov, R.V. Davydov, V.A. Lyapishev, V.Yu. Rud, Yu.V. Rud, A.P. Glinushkin, Journal of Physics: Conference Series, 917(5) 052011 (2017)
8. I.S. Kudryashova, V.Yu. Rud, V.C. Shpunt, Yu.V. Rud, A.P Glinushkin, Journal of Physics: Conference Series, 741(1) 012106 (2016)
9. V. B. Fadeenko, V. Yu. Rud, Yu.V. Rud, A.P Glinushkin, V.C. Shpunt, W. Hogland, Journal of Physics: Conference Series, 1038(1) 012030 (2018)
10. D.N. Matorin, N.P. Timofeev, A.P. Glinushkin, L.B. Bratkovskay, B.K. Zaydan, Moscow University Biological Sciences Bulletin, 73(4) 203-208 (2018)
11. N. Mahmoud, W. Hogland, M. Sokolov, V. Rud, N. Myazin, MATEC Web of Conference, 245 06012 (2018)
12. J. Stenis, W. Hogland, M. Sokolov, V. Rud, R. Davydov, IOP Conference Series: Materials Science and Engineering, 497(1) 012061 (2019)
13. V.A. Lyapishev, V.Yu. Rud, M.S. Sokolov, A.V. Cheremisin, Proceedings of the 2018 IEEE International Conference on Electrical Engineering and Photonics, EExPolytech 2018, 8564387 292-294 (2018)
14. N.M. Grebenikova, K.J. Smirnov, V.V. Davydov, V.Yu. Rud, V.V. Artemiev, Journal of Physics: Conference Series, 1135(1) 012055 (2018)
15. N.M. Grebenikova, K.J. Smirnov, V.V. Davydov, V.Y. Rud, Journal of Physics: Conference Series, 1124(4) 041011 (2018)
16. N.M. Grebenikova, N.S. Myazin, V.Yu. Rud, R.V. Davydov, Proceedings of the 2018 IEEE International Conference on Electrical Engineering and Photonics, EExPolytech 2018, 8564409 295-297 (2018)
17. E.V. Rykin, A.V. Moroz, K.J. Smirnov, V.V. Davydov, V.V. Yushkova, MATEC Web of Conference, 245 12002 (2018)
18. V.V. Davydov, S.V. Kruzhalov, N.M. Grebenikova, K.J. Smirnov, Measurement Techniques, 61(4) 365-372 (2018)
19. N.S. Myazin, V.V. Davydov, V.V. Yushkova, V.Yu. Rud, Journal of Physics: Conference Series, 1038(1) 012088 (2018)
20. N.S. Myazin, V.V. Davydov, V.V. Yushkova, T.I. Davydoa, V.Yu. Rud, Journal of Physics: Conference Series, 917(4) 042017 (2017)
21. N.S. Myazin, V.V. Davydov, V.V. Yushkova, V.Yu. Rud, Journal of Physics: Conference Series, \textbf{1038}(1) 012088 (2018)
22. R.V. Davydov, V.I. Antonov, V.V. Yushkova, N.M. Grebenikova, V.I. Dudkin, Journal of Physics: Conference Series, \textbf{1236}(1) 012079 (2018)
23. N.S. Myazin, S.E. Logunov, V.V. Davydov, V.Yu. Rud', N.M. Grebenikova, V.V. Yushkova, Journal of Physics: Conference Series 929 (1) 012064 (2017)
24. N. Myazin, Y. Neronov, V. Dudkin, V. Davydov, V. Yushkova, MATEC Web of Conference, \textbf{245} 11013 (2018)
25. N.S. Myazin, V.V. Davydov, V.V. Yushkova, V.Yu. Rud', Environmental, Research, Engineering and Management,\textbf{75}(2) 28-35 (2019)
26. R. Davydov, V. Antonov, D. Molodtsov, A. Trebukhin, Advances in Intelligent Systems and Computing, \textbf{692} 915–920 (2018)
27. R. Davydov, V. Antonov, D. Molodtsov, A. Cheremisin, V. Koralev, MATEC Web of Conference, \textbf{245} 15002 (2018)
28. R.V. Davydov, V.I. Antonov, D.V. Molodtsov, Journal of Physics: Conference Series, \textbf{1135}(1) 012088 (2018)
29. N.S. Myazin, V.I. Dudkin, N.M. Grebenikova, R.V. Davydov, V.V. Davydov, V.Yu. Rud, A.S. Podstrigaev, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), \textbf{11660 LNCS} 744–756 (2019)
30. N. Grebenikova, V. Davydov, A. Moroz, M. Byлина, M. Kyzmin, IOP Conference Series: Materials Science and Engineering, \textbf{497}(1) 012109 (2019)
31. K.J. Smirnov, V.I. Medzakovskyi, V.V. Davydov, M.G. Vysoeczky, S.F. Glagolev, Journal of Physics: Conference Series, \textbf{917}(6) 062019 (2017)
32. R.V. Davydov, V.Yu. Rud, Yu.V. Rud, E.I. Terukov, Journal of Physics: Conference Series, \textbf{1124}(8) 081039 (2018)
33. A.V. Moroz, V.V. Davydov, V.Yu. Rud, Yu.V. Rud, V.C. Shpunt, A.P. Glinushkin, Journal of Physics: Conference Series, \textbf{1135}(1) 012060 (2018)
34. I.V. Bondar, V.Yu. Rud, Yu.V. Rud, D.V. Lozhkin, Semiconductors, \textbf{45}(7) 912-916 (2011)
35. V.F. Gremenok, Yu.Yu. Rud, Yu.V. Rud, S.A. Bashkirov, V.A. Ivanov, Semiconductors, \textbf{45}(8) 1053-1058 (2011)
36. V.Yu. Rud, Yu.V. Rud, V.F. Gremenok, E.I. Terukov, B.K. Barinov, Y.W. Song, Semiconductors, \textbf{46}(2) 221-224 (2012)
37. D. Tarasova, A. Startsyyna, D. Nemova, K. Andreev, MATEC Web of Conferences, \textbf{53} 01007 (2016)
38. V. Maslak, N. Nasonkina, V. Sahkonoskaya, S. Antonenko, D. Nemova, Procedia Engineering, \textbf{117} 985-994 (2015)
39. V. Mushchanov, V. Sievka, A. Veshnevskaya, D. Nemova, Procedia Engineering, \textbf{117}(1) 1018-1026 (2015)
40. M. Sivers, G. Fokin, P. Dmitriev, A. Kiriev, D. Volgushev, A.-O.A.H. Ali, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), \textbf{9870 LNCS} 465–476 (2016)
41. G. Fokin, A.H.A. Al-Odliari, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), \textbf{11118 LNCS} 496–508 (2018)
42. O.V. Novikova, A.N. Grishkin, I.S. Khrebetenko, N.A. Yudina, IOP Conference Series: Earth and Environmental Science, \textbf{288}(1) 012065 (2019)
43. M. Petrichenko, N. Vatin, D. Nemova, N. Kharkov, A. Staritcyna, Applied Mechanics and Materials, 627 297-303 (2014)
44. F. P. Kesamanly, Yu. V. Rud’ and V. Yu. Rud’, Semiconductors, 33 5 483-520 (1999)
45. V.V. Davydov, E.N. Velichko, N.S. Myazin, V.Yu. Rud’, Instruments and Experimental Techniques, 61 116–122 (2018)
46. R.V. Davydov, V.I. Antonov, A. V. Moroz, Proceedings of the 2018 IEEE International Conference on Electrical Engineering and Photonics, EExPolytech 2018, 8564378 236-239 (2018)