

Economic Aspects of the Development of Peasant Household in Russia During the World War I

Kolupaev A.A.¹, Gali B.T.², Konteva O.E.³, Tinkov S.A.⁴, Avdeev Yu. M.⁵, Aleshin P. N.⁶

¹South-West State University, Kursk, Russian Federation

²Kazan State Agrarian University, Kazan, Russian Federation

³Polzunov Altai State Technical University, Barnaul, Russian Federation

⁴Moscow Aviation Institute (National Research University), Moscow, Russian Federation

⁵Vologda State University, Vologda, Russian Federation.

⁶Bashkir state University, Sterlitamak, Russian Federation.

Article Info

Volume 83

Page Number: 601 - 608

Publication Issue:

May - June 2020

Abstract:

Development features of peasant household of some Russian provinces during World War I are described in the paper. World War I had a great impact on Russian agriculture. Military recruitment, requisition of horses and cattle, lack of agricultural tools, machines and fertilizers, transport difficulties had a negative impact on agriculture. About 7.5 million people were taken from agriculture in the first year of war. About 6 million of people were called on military service in the second and third year. As a result, a large number of households were without male work power. Women, old men and teenagers had a major role in agriculture due to a lack of male work power. Agriculture lost a great number of horses. They were taken into the army. 3167 thousand of horses were in the army according to records for September 1, 1917. This is 10% of all livestock of horses in the country. A large number of cattle were confiscated during the war. This had a great impact on agriculture of the southern and western provinces. A great requisition was in middle-class households and in poor households. However, despite a number of negative economic factors connected with the war, country economy had necessary human resources, material and technical resources, showing steady increase in work productivity and crop yield. Political events of critical period in the history of Russia in the beginning of the 20th century showed that the country was dependent on the peasantry. It was because the peasantry was the majority of population. Rural and army support played a great role in a victory of the Left in revolutionary events of 1917 and the subsequent Civil war. Agrarian revolution showed that Russian peasantry resolved complex problems of agrarian development by confiscatory and distributive actions. It was called «Black Repartition» in Russia.

Keywords: peasant household, human resources, material and technical base, land lease, agricultural production.

Article History

Article Received: 11 August 2019

Revised: 18 November 2019

Accepted: 23 January 2020

Publication: 09 May 2020

I. INTRODUCTION

Study of the processes happening in Russian villages

at the beginning of the XX century is one of the priority directions of Russian history. At that time social situation in villages was very unstable. «Land hunger» was generated by rapid growth of country population at community preservation. Numerous financial duties, low level of productive forces development in villages was a result of impoverishment of a considerable part of rural population.

In these conditions there was unambiguously negative attitude of peasants to those who own the land and did not work on it. Peasant fight for landowners' estates turned into the most important component of the revolutionary process.

One of the main research tasks of Russian history is to identify the reasons which caused rather easy power gaining by the Bolsheviks in October 1917.

Destruction of private land ownership in 1917-1918 was the last step of an alternative option of Russian village development connected with P.A. Stolypin. He assumed not redistribution of households but creation of peasants' owners who tried to increase welfare on the basis of more cultural and rational managing [13-20]. Researchers of different generations and schools think differently and ambiguously about the results of Stolypin's modernization of an agrarian system in Russia. This reform has not had an adequate point of view in history. Stolypin's agrarian reform is in demand in today's situation. It is necessary to solve many problems. First of all, it is necessary to reveal the reform potential and reasons why it was not implemented. In its turn it is important to study living conditions of Russian in the period of agrarian project implementation of the last large reformer of imperial Russia. It is also necessary to pay special attention to the period of World War I because events of 1914-1917 showed that changes which happened in villages during pre-war period were not so irreversible.

Stolypin's reform was brought down. After three years of reform testing multimillion mass of peasantry implemented other version of an agrarian question solution [21-26].

II. METHODOLOGY

Principles of objectivity and historicism are methods of this research study. These methods have impartial approach to the analysis of the studied problems. It has critical attitude to sources and facts after the analysis. It also shows events and development from historical point of view [27-30]. General scientific methods were used: logical, classificational, method of factor analysis and also such special methods as comparative, statistical and typological methods.

III. DISCUSSION

According to the analysis of scientific information about agrarian history of Russia during World War I (1914 – October, 1917) it is possible to have the following conclusions. Firstly, there is a local point of view of researches. On one hand this promotes profound understanding of difficulty in agrarian development process in wartime. On the other hand, it is impossible to study this problem widely on the basis of modern methodological approaches. It is difficult to study this problem on a nationwide scale. But the study from this point of view is up-to-date.

Secondly, it is necessary to review some basic provisions in scientific studies of Soviet historiography. For example: destructive impact of world war on peasant household economy, a role of the state in stimulation of agricultural production and etc. [31]. Thirdly, the latest studies of agrarian history in World War I containing various materials on this subject are very complex [1-10; 31-39].

IV. RESULTS

Changes which happened during World War I in

country economy were important for revolutionary events of 1917 [2, page 136-148]. Men's war mobilization had the first and the strongest impact on peasant economy. The number of men mobilized in army increased. According to All-Russian agricultural census about 12861,4 thousand people from 75 provinces were mobilized, including 10932.2 thousand people from 47 provinces of the European part of Russia. This census was made in 1917. The number of all mobilized men was 22.6% and 47.4% of working-age male population [1, page 188-195].

Presence of work power in peasant households can be the following: 21, 3 (67.2%) million of people from 33 provinces took part in agricultural work in 1917. 6.0 million was male population and 15.3 million was women population (71.9%). Women population was nearly three quarters of all agricultural working power. At the same time 58.8% of hired women were in landowner's households in 1917. It was less than in peasant households. Women became the main power in agricultural production during World War I [7, page 229-235].

There was a difficult situation with work power because of mobilization. A great number of people took part in military action or made military deliveries. This made the situation worse [8, page 146-149].

Despite the fact that war prisoners and refugees were 27% of total number of workers. They work very little in peasant households. Small households had an opportunity to use prisoners work but could receive them from zemstvos very seldom. In general peasants had more workers than landowners. However, peasants had more female work power but women could not work as men because they were not physically strong as men. Peasants' work was mainly forced labor as they could not work much on their lands. Considerable share of labor was in landowners' households as monthly and daily workers [40-42].

Besides, distribution of labor increased uneven in the most households during the war. All this adversely affected households of the poorest class. If to speak about peasant households in general, it has considerable agrarian overpopulation. And outflow of labor from villages did not cause reduction in production in peasant households. Data on acreage proves this fact [9, page 127-133].

Difficulties connected with livestock loss due to requisition of horses and oxen for army needs increased. So, about 2.6 million of horses were confiscated and bought up for army needs. This information is according to records in spring 1917 [1, page 196-204].

Peasants had to work not only in their households but also had to do other work using cattle which were in bad condition. Implementation of obligatory natural duties which strongly increased in war years distracted a large number of draft powers from work in households.

Reduction of cultivated areas was the first mass result of these changes. Rent prices decreased due to the reduction in land demand in war years [6, page 181-187]. Rent reduction and fall in prices reduced income of landowners. Therefore, decrease in land rent in terms of economic and social progress was a positive phenomenon. It was incentive to production expansion [3; 43-47].

Strong reduction of crops was in nonblack soil regions. Data showed that sowings of rye and oat reduced more because of small profitability of their production. However, reduction of sowings in war years was connected not with unprofitability but it was due to increasing profitability of their cultivation. Flax cultivation was profitable. But its sowing reduced. Considerable reduction of acreage was compensated by the increased wheat harvest in 1915. Productivity in

1915 and 1916 was higher than pre-war and noticeable decrease of harvest was in 1917 due to revolutionary events [5, page 247-252].

Peasant households had constant income from agricultural products trade, from crafts and etc. World War I made huge changes in peasants' activity. There was an income decrease from local and seasonal work out of peasant household [10, page 27-35].

6.2 million of peasant households lost their income from crafts in war years. But before war their income was about 800 million rubles. It reflected nonblack soil regions greatly. Before war 4 million households (76.4%) from 5.2 million households were making "crafts". Before war they received 568 million rubles from "crafts" but by 1917 it was 350 million rubles less [1, page 244].

Participation of various peasant households in "trade" activity changed in war years. Trade, flour-grinding and other enterprises of wealthy peasants had great income in war years. But income of poor people decreased because there was a reduction in hired labor. Moreover, wealthy peasants wanted to work as hired workers at enterprises which worked for war. They did this because it was a possibility of exemption from army conscription [1, page 241-243].

Data show that unearned income from "crafts" was big. Nevertheless, a great part of income was a result of hired labor and small handicrafts. This part of income reduced in war years [4, page 208-211].

There was a sharp increase in peasants' budget expenditure in war years. There was an increase in prices for bread and other products. Increase in prices for bread affected poor people greatly [48-60].

High prices of goods affected peasants every year of war. State taxes increased in two times in war years. Territorial taxes also increased [11; 12]. Collecting

shortages on debts in food shops and collecting on replenishment of grain stocks increased. This fact made life of poor people worse because half of population was debtors. Duties of peasants increased in war years.

V. CONCLUSION

World War I caused a considerable loss for peasant households, first of all by men mobilization. The majority of working-age population was women (71.9%) and only 28.1% was men by 1917. A large number of working populations was doing forced work. About 2.6 million horses were bought for military needs in the period from the beginning of war to the February revolution in 1917. This fact affected one-horse and low-horse households. Acreage for bean crops and potatoes were reduced from 80.0 million tithes in 1914 to 71.5 million tithes (10.6%) in 1916. Mobilization of men deprived income of peasant households considerably. At the same time 6.2 million households lost income by working out of their households. It was 850 million rubles a year [10, page 27-35].

At the same time, despite negative economic facts connected with World War I peasant households had necessary human, material and technical resources. There was a steady increase in labor productivity and yield in peasant households. It was due to the fact that the peasantry was an independent producer of agricultural products and the seller of work power. Therefore, it had benefits from prices increase for agricultural products and from work power selling. So, famous economist N.A. Danilov said that "the impact of prices increase for country products was not only salutary for the peasantry of rich provinces but rich peasants became richer and they could not take into account prices' increase for factory products" [1, page 280].

REFERENCES

1. Anfimov A.M. Rossijskaya derevnya v gody pervoj mirovoj vojny 1914-fevral' 1917 g. M.: Izd-vo social'no-ekon. lit-ry, 1962. 382 s.
2. Esikov S. A. Vozdejstvie Pervoj mirovoj vojny na sel'skoe hozyajstvo // Gumanitarnye nauki: problemy i resheniya: sbornik nauchnyh statej / pod red. A. A. Slezina. M. - Tambov: OOO «Centrpress»; OOO «VIP-GRAF», 2009. Vyp. VI. S. 136-148.
3. Ivanov A. A. Krest'yanskoe hozyajstvo Chernozemnogo centra Rossii nakanune i v gody Pervoj mirovoj vojny: avtoref. diss.. k.i.n.: 07.00.02. M., 1998. 18 s.
4. Kolupaev, A.A. Promyslovaya deyatel'nost' kurskih krest'yan v period revolyucionnyh sobytij 1917 goda i grazhdanskoj vojny /A.A. Kolupaev// Izvestiya Yugo-Zapadnogo gosudarstvennogo universiteta. - 2012. - № 5-1 (44). - S. 208-211.
5. Kolupaev, A.A. Razvitie sel'skohozyajstvennogo proizvodstva v kre-st'yanskikh hozyajstvakh v period revolyucionnyh sobytij 1917 goda i grazhdanskoj vojny /A.A. Kolupaev// Izvestiya Yugo-Zapadnogo gosudarstvennogo universiteta. Seriya: Istoriya i pravo. - 2012. - № 2-1. - S. 247-252.
6. Kolupaev, A.A. Reshenie zemel'nogo voprosa v Kurskoj gubernii nakanune i v period revolyucionnyh sobytij 1917 goda i grazhdanskoj vojny /A.A. Kolupaev// Izvestiya Yugo-Zapadnogo gosudarstvennogo universiteta. - 2013. - № 6 (51). - S.181-187.
7. Kolupaev, A.A. Trudovye resursy kurskoj derevni nakanune i v period revolyucionnyh sobytij 1917 goda i grazhdanskoj vojny /A.A. Kolupaev// Izvestiya Yugo-Zapadnogo gosudarstvennogo universiteta. -2012. - № 2-2 (41). - S. 229-235.
8. Kudinova Yu. V. Polozhenie krest'yanstva Voronezhskoj gubernii v period mezhdv dvumya russkimi revolyuciyami (1908-1916 gg.) // Nauchnye vedomosti Belgorodskogo gosudarstvennogo universiteta. Seriya: Istoriya. Politologiya. Ekonomika. Informatika. 2011. T. 19. № 13 (108). S. 146-149.
9. Potapova L. I. Sel'skoe hozyajstvo i Kaluzhskaya derevnya v gody Pervoj mirovoj vojny (nekotorye aspekty problemy) // Rossiya v mirovyh vojnakh XX veka: materialy nauchnoj konferencii / pod red. A. V. Lubkova. M.: Izd-vo MGPU, 2002. S. 127-133.
10. Shchagin E. M. Vozdejstvie Pervoj mirovoj vojny na narodnoe hozyajstvo Rossii // Rossiya v mirovyh vojnakh XX veka: materialy nauchnoj konferencii / pod red. A. V. Lubkova. M.: Izd-vo MGPU, 2002. S. 27-35.
11. Kravtsova, E.S. Evolyutsiya sistemy zemskikh soborov v Rossii vo vtoroy polovine XIX – nachaleXXveka // Prepodavaniye istorii v shkole. – 2008. – № 5. – С.21–24.
12. Kravtsova, E.S. Osobennosti nalogovoy sistemy Rossii na rubezhe XIX – XXvv// Prepodavaniyeistoriiivshkole. . – 2008. – № 3. – С.7–10.
13. Mauch, J., & Tarman, B. (2016). A historical approach to social studies laboratory method. *Research in Social Sciences and Technology*, 1(2), 55-66.
14. Grakhova, S., Fayzrakhmanov, I., Zhundibayeva, A., Yakutina, M., Sharipov, R., & Stepykin, N. (2019). Information, pedagogical and facilitation technologies in teaching a special philology class at non-specialized faculties of higher education institutions. *International Journal of Innovative Technology and Exploring Engineering*, 8(12), 1613-1620. doi:10.35940/ijitee.L3154.1081219
15. Kireev, B., Zhundibayeva, A., & Aktanova, A. (2019). Distance learning at higher education institutions: Results of an experiment. *Journal of Social Studies Education Research*, 10(3), 387-403.
16. Gabidullina, F. I., Korganbekov, B. S., Makarova, V. F., Zakirov, R. A., & Kayumova, G. F. (2019). Concept «teacher» in language consciousness of students of philological faculty. *XLinguae*, 12(3), 45-54. doi:10.18355/XL.2019.12.03.04

17. Magsumov, T.A. (2018). Vocational school and studying youth in the Russian revolution of 1905. *Terra Sebus*, 10, 289-313.
18. Dunets, A. N., Yankovskaya, V. V., Plisova, A. B., Mikhailova, M. V., Vakhrushev, I. B., & Aleshko, R. A. (2020). Health tourism in low mountains: A case study. *Entrepreneurship and Sustainability Issues*, 7(3), 2213-2227. doi:10.9770/jesi.2020.7.3(50)
19. Dautov, G. F., Mingazova, L., Sayfulina, F. S., & Kayumova, G. F. (2018). Written heritage of the golden horde. [Patrimonio escrito de la horda de oro] *Opcion*, 34(Special Issue 14), 895-911.
20. Sagdieva, R., Husnutdinov, D., Mirzagitov, R., & Galiullin, R. (2019). Kinship terms as proof of genetic relationship. *Journal of Social Studies Education Research*, 10(3), 103-117.
21. Meier, L. (2019). Questioning the Problematic Nature of School Culture in Elementary Teacher Education. *Journal of Culture and Values in Education*, 2(1), 34-44. Retrieved from <http://cultureandvalues.org/index.php/JCV/article/view/30>
22. Mullakhmetov, K. S., Nazmiev, E. F., & Akhmetshin, E. M. (2015). Control in the system of public administration in Russia. *International Business Management*, 9(7), 1732-1736. doi:10.3923/ibm.2015.1732.1736
23. Dunets, A., Muhamedieva, A., Sycheva, I., Perepechkina, E., Vakhrushev, I., & Kulchytskiy, A. (2019). Spatial tourism planning: Using the model of functional and planning complexes. *Journal of Environmental Management and Tourism*, 10(4), 711-719. doi:10.14505/jemt.v10.4(36).01
24. Sycheva, I. N., Voronkova, O. Y., Kovaleva, I. V., Kuzina, A. F., Bannikov, S. A., & Titova, S. V. (2019). Motivation in personnel management of a trading enterprise. *International Journal of Economics and Business Administration*, 7, 570-582.
25. Valentim, L. C. G., Lucena, H. D. A. N., Amaral, I. B. C., Couto, L. C., & Reis, A. B. (2019). Short fiber fluff cellulose industry: Economic viability and energy potential. [INDÚSTRIA DE CELULOSE FLUFF DE FIBRA CURTA: VIABILIDADE ECONÔMICA E POTENCIAL ENERGÉTICO] *Periodico Tche Quimica*, 16(31), 49-58.
26. Ghosh, M., & Ghosal, S. (2019). Historical geography of forestry and forest culture in sub-himalayan west bengal, 1757-2015. *Space and Culture, India*, 6(5), 215-227. doi:10.20896/SACI.V6I5.393
27. Fedulova, I., Ivanova, V., Atukova, O., & Nosov, V. (2019). Inclusive education as a basis for sustainable development of society. *Journal of Social Studies Education Research*, 10(3), 118-135.
28. Akhtariev, R., Ibragimova, E., & Tarasova, A. (2019). Dynamics of acculturation processes among foreign students in the multi-ethnic educational environment of the higher educational establishment. *Journal of Social Studies Education Research*, 10(3), 82-102
29. Saenko, N., Voronkova, O., Volk, M., & Voroshilova, O. (2019). The social responsibility of a scientist: Philosophical aspect of contemporary discussions. *Journal of Social Studies Education Research*, 10(3), 332-345.
30. Korableva, O.N., Kalimullina, O.V., Mityakova, V.N. (2019) Designing a System for Integration of Macroeconomic and Statistical Data Based on Ontology. *Advances in Intelligent Systems and Computing*, 998, p. 157-165
31. Bekmansurov, R. H., Kovalenko, K. E., Utkina, K. M., Novikova, Y. A., Zatsarinnaya, E. I., & Rozentsvaig, A. I. (2019). State support for persons with disabilities in the field of entrepreneurship. *Journal of Entrepreneurship Education*, 22(S2), 1-9.
32. Glotko, A. V., Polyakova, A. G., Kuznetsova, M. Y., Kovalenko, K. E., Shichiyakh, R. A., & Melnik, M. V. (2020). Main trends of government

- regulation of sectoral digitalization. *Entrepreneurship and Sustainability Issues*, 7(3), 2181-2195. doi:10.9770/jesi.2020.7.3(48)
33. Kashirskaya, L., Voronkova, O., Sitnov, A., Shichiyakh, R., Kudinova, M., & Sycheva, I. (2019). Rural development through the formation of zonal agro-ecological clusters. *Journal of Environmental Management and Tourism*, 10(3), 651-659. doi:10.14505/jemt.v10.3(35).19
 34. Movchan, I. B., & Yakovleva, A. A. (2019). Refined assessment of seismic microzonation with a priori data optimisation. *Journal of Mining Institute*, 236, 133-141. doi:10.31897/PMI.2019.2.133
 35. Frolova, I., Voronkova, O., Islamutdinova, D., Gordeyeva, O., Fedulova, I., & Zhminko, A. (2019). Ecologization of agroindustrial production: Organizational and economic transformations. *Journal of Environmental Management and Tourism*, 10(3), 622-630. doi:10.14505/jemt.v10.3(35).16
 36. Saenko, N., Voronkova, O., Zatsarinnaya, E., & Mikhailova, M. (2020). Philosophical and cultural foundations of the concept of "nihitogenesis". *Journal of Social Studies Education Research*, 11(1), 88-103.
 37. Filatova, I., Shabalov, M., & Nikolaichuk, L. (2019). Regulation methods in natural monopoly markets case of russian gas network companies. *International Journal of Engineering Research and Technology*, 12(5), 624-630.
 38. Akim, K., Kara-Murza, G., Saenko, N., Suharyanto, A., & Kalimullin, D. (2019). Superhero movie: Breaking the challenges of topics in the modern epos. [Película de superhéroes: Rompiendo los desafíos de los temas en los epos modernos] *Opcion*, 35(Special Issue 22), 1408-1428.
 39. Morozova, T., Akhmadeev, R., Lehoux, L., Yumashev, A., Meshkova, G., & Lukyanova, M. (2020). Crypto asset assessment models in financial reporting content typologies. *Entrepreneurship and Sustainability Issues*, 7(3), 2196-2212. doi:10.9770/jesi.2020.7.3(49)
 40. Sycheva, I., Voronkova, O., Vorozheykina, T., Yusupova, G., Semenova, A., & Ilyin, A. (2019). The main directions of improving the environmental and economic efficiency of regional production. *Journal of Environmental Management and Tourism*, 10(3), 631-639. doi:10.14505/jemt.v10.3(35).17
 41. Akhmetshin, E. M., Vasilev, V. L., Mironov, D. S., Zatsarinnaya, E. I., Romanova, M. V., & Yumashev, A. V. (2018). Internal control system in enterprise management: Analysis and interaction matrices. *European Research Studies Journal*, 21(2), 728-740.
 42. Hrivnák, M., Melichová, K., Fáziková, M., & Roháčiková, O. (2019). University graduates, knowledge spill-overs and localization of knowledge intensive ventures-case of post-socialistic country. *Entrepreneurship and Sustainability Issues*, 7(1), 146-165. doi:10.9770/jesi.2019.7.1(12)
 43. Frolova, I., Voronkova, O., Alekhina, N., Kovaleva, I., Prodanova, N., & Kashirskaya, L. (2019). Corruption as an obstacle to sustainable development: A regional example. *Entrepreneurship and Sustainability Issues*, 7(1), 674-689. doi:10.9770/jesi.2019.7.1(48)
 44. Kuznetsova, I. G., Surikov, Y. N., Votchel, L. M., Aleynikova, M. Y., Voronkova, O. Y., & Shichiyakh, R. A. (2019). The methodological aspect of human capital formation in the digital economy. *International Journal of Mechanical Engineering and Technology*, 10(2), 1020-1030.
 45. Ivanova, V., Poltarykhin, A., Szromnik, A., & Anichkina, O. (2019). Economic policy for country's digitalization: A case study. *Entrepreneurship and Sustainability Issues*, 7(1), 649-661. doi:10.9770/jesi.2019.7.1(46)
 46. Morozova, T.V., Akhmadeev, R.G., Bykanova, O.A., Philippova, N.V. (2019) Harmonizing the valuation standards of the EEU agricultural

- companies. *International Journal of Recent Technology and Engineering*, 8 (1), pp. 2167-2177.
47. Bykanova, O.A., Akhmadeev, R.G., Glubokova, N.Y., Kravchuk, I.S. (2018) The global market of roundwood: Financial aspects. *Bulgarian Journal of Agricultural Science*, 24 (1), pp. 8-16.
 48. Wati, L. N., Primiana, H. I., Pirzada, K., & Sudarsono, R. (2019). Political connection, blockholder ownership and performance. *Entrepreneurship and Sustainability Issues*, 7(1), 52-68. doi:10.9770/jesi.2019.7.1(5)=
 49. Vasilev, B. U., Grigorev, P. S., & Shulgenko, V. M. (2018). Configuration and energy supply of promising types of underwater pumping complexes for transportation of hydrocarbons from the shelf. *Neftyanoe Khozyaystvo - Oil Industry*, (3), 77-81. <http://doi:10.24887/0028-2448-2018-3-77-81>
 50. Kamaeva, R. B. (2014). National cultural specifics of representing dialecticisms in the fiction work translation. *Life Science Journal*, 11(10), 95, 653-656.
 51. Miftakhov, A. F., Sergin, A. A., Starostin, V. G., Torgovkin, V. G., & Savinkova, O. N. (2019). Correlation of physical development indicators with speed-strength performance in 11-12-year-old boys. *International Journal of Instruction*, 12(1), 269-282. doi:10.29333/iji.2019.12118a
 52. Kolmakov, V., & Polyakova, A. (2019). Regional free cash flow dataset: An approach to regional performance evaluation. *Data in Brief*, 25 doi:10.1016/j.dib.2019.104175
 53. Kolmakov, V., Polyakova, A., & Polyakov, S. (2019). A valuation approach to the Russian liberal establishment consolidation. *Administratie Si Management Public*, 2019(32), 93-107. doi:10.24818/amp/2019.32-07
 54. Aharonovich, A. R., Sergeevich, S. M., & Vyacheslavovna, D. S. (2019). Institutional framework for entrepreneurship of regional innovation systems of the union state. *Academy of Entrepreneurship Journal*, 25(Special Issue 1)
 55. Panfilova, E., Dzenzeliuk, N., Domnina, O., Morgunova, N., & Zatsarinnaya, E. (2020). The impact of cost allocation on key decisions of supply chain participants. *International Journal of Supply Chain Management*, 9(1), 552-558.
 56. Tsvetkova, M., Arutyunyan, M., Saenko, N., Shramko, L., & Kalimullin, D. (2019). Incorporation of philosophical ideas in science fiction literature. [Incorporación de ideas filosóficas en la literatura de ciencia ficción] *Opcion*, 35(Special Issue 23), 598-612.
 57. Frolova, I. I., Nosov, V. V., Zavyalova, N. B., Dorofeev, A. E., Vorozheykina, T. M., & Petrova, L. I. (2020). Labor opportunism as a blocking factor for the innovative development of industrial enterprises. *Entrepreneurship and Sustainability Issues*, 7(3), 2228-2242. doi:10.9770/jesi.2020.7.3(51)
 58. Malyshkov, G. B., Nikolaichuk, L. A., & Sinkov, L. S. (2019). Legislative regulation of waste management system development in russian federation. *International Journal of Engineering Research and Technology*, 12(5), 631-635.
 59. Vidya, C., Sheeja, J., & Sekar, M. (2019). Towards reducing computational effort in vortex induced vibration predictions of a cylindrical riser. *Periodico Tche Quimica*, 16(33), 841-853.
 60. Ivanovich, G. V., Aharonovich, A. R., & Sergeevich, S. M. (2019). Implementation of international experience in support of youth innovative entrepreneurship in the union state. *Academy of Entrepreneurship Journal*, 25(Special Issue 1)