

Improving the methodological tools for assessing the tax burden on small and medium-sized businesses in the agricultural sector

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Abstract

The article is devoted to improving the methodological tools for assessing the tax burden on small and medium-sized businesses. Based on the generalization of existing methodological approaches—for instance, the method of the Tax Policy Department of the Ministry of Finance of the Russian Federation (Balatsky); the methods of Kreinina, Kadushin and Mikhailova, and Litvin; and the method of calculating the tax burden for a special tax regime (simplified system taxation, uniform agricultural tax, etc.—the authors suggest a method for estimating the level of tax burden on small and medium-sized businesses in relation to pre-tax profit. The main difference of the updated author's methodology is the consideration of tax and non-tax mandatory payments in the tax burden paid by small and medium-sized businesses. The result of the calculation according to the updated method is the level of the tax burden, which allows us to estimate the number of roubles paid on taxes and fees from 100 roubles of profit before tax. The authors assessed the level of development of small and medium-sized businesses in the Russian agriculture sector using a special tax regime in the form of a unified agricultural tax and gave a comparative description of the tax burden calculated using different methods, including a revised author's methodology.

Keywords: small and medium-sized businesses, agricultural sector, special tax regimes, uniform agricultural tax, tax burden, calculation method.

1. INTRODUCTION

1.1 The relevance of a scientific problem

The need to preserve and develop small and medium-sized businesses in the current conditions of financial and economic instability and growing competition in commodity and product markets is associated with their high role in socio-economic development and in solving employment problems, powerful antitrust potential, and mobile flexibility in financial and economic activity. Thus the potential possibility of saturating the market with products (works, services) is not very attractive for large businesses. The problem of expanding forms and types of support for small and medium-sized businesses is

particularly acute in the agricultural sector, since small and medium-sized agricultural producers in Russia produce 27% of grain, 86% of potatoes, 82% of vegetables, 28% of meat and poultry, and 52% of milk. A serious problem impeding the development of small and medium-sized businesses in the agricultural sector of Russia is the high level of taxation. All this makes relevant the problem of analysing the level of taxation of small and medium-sized businesses in the agricultural sector and improving the methodology for assessing the tax burden.

1.2 Aim and objectives of the study

The aim of the study is to clarify the methodology and assess the level of taxation of small and medium-sized businesses in the agricultural sector of Russia. In accordance with the goal, the following tasks are defined and solved:

- analysis of world and Russian practice of establishing criteria for classifying a business as of small and medium size;
- comparison of the main socio-economic indicators of the development of small and medium-sized businesses of separate countries;
- generalization of existing methods and identification of their main disadvantages and advantages; this includes the method of the Tax Policy Department of the Ministry of Finance of the Russian Federation (Balatsky); the methods of Kreinina, Kadushin and Mikhailova, and Litvin; and the method of calculating the tax burden for a special tax regime (simplified system taxation, uniform agricultural tax, etc.);
- development of the author's methodology for assessing the level of tax burden on small and medium-sized businesses; and
- calculation of the level of tax burden on small and medium-sized businesses in the agricultural sector, performed by different methods.

1.3 Object and subject of study

Small and medium-sized businesses in the agricultural sector are the object of study. The subject of the research is economic relations, under which the tax burden on small and medium-sized businesses in the agricultural sector is formed.

2. METHODOLOGY. ANALYSIS OF EXISTING METHODS OF ESTIMATING THE TAX BURDEN

The scientific and practical attempts to improve the methodology and assess the size of the tax burden are not new. In the modern economic literature there are various methodological approaches to measure the size of the tax burden at the level of a separate enterprise, industry, or country.

2.1 Method of the Tax Policy Department of the Ministry of Finance of the Russian Federation (Balatsky). This methodology is based on measuring the tax burden, calculated as the ratio of the total amount of taxes and fees to revenue from sales of products (works, services), including revenue from other sales. The most important advantage of this technique is that the final value characterizes the share of taxes paid in revenue (including VAT). The main disadvantage is that the resulting value does not allow an assessment of the impact of each tax and methods of its optimization on the financial condition of the company, depending on the source of tax payment. Revenue includes direct and indirect costs, including depreciation charges that form the cost of production.

2.2 Method of Kreinina. This technique is based on a comparison of the amount of tax paid (taxes) and the source of payment. The most important advantage of this method is that it can be used to estimate the share of tax paid at the source of payment. In addition, the method allows for the consideration of the effectiveness of the application of tax planning methods for a particular tax over time. The main disadvantage is that the methodology does not apply to indirect taxes; it does not take into account personal income tax.

2.3 Method of Kadushin and Mikhailova. This methodology is based on an assessment of the tax burden on the share of value added to the budget, created by a specific economic entity. The main advantage is that the technique allows for a consideration of the share of taxes (corporate income tax, personal income tax, VAT, insurance premiums) at the source from which they are paid, that is, in value added. The disadvantage of the method is that it does not take into account the impact of the tax on the

property of the organization, or of transport tax, payments for the use of natural resources, or land tax.

2.4 Method of Litvin. This method is based on measuring the tax burden on the amount of accrued tax payments. The most important advantage is that the method allows for a comparison of the tax burden on different industry enterprises (at the expense of the wage fund). The disadvantage is that the methodology does not take into account the impact of taxes such as property tax, transport tax, payments for the use of natural resources, and land tax, for which the source of their payment is not determined.

2.5 Method of calculating the tax burden for a special tax regime (simplified system taxation, uniform agricultural tax). This methodology is based on an assessment of the tax burden on added value adjusted to the peculiarities of the regime. The most important advantage of this method is that it allows for the calculation of the tax burden when applying a special tax regime. The disadvantage of the method lies in the high complexity of calculating the value added modulated to the conditions of the application of special regimes, and the cost of the acquisition (created by the taxpayer) of fixed assets and intangible assets accounted in the manner prescribed by the special tax regime.

2.6 Method of calculating the tax burden in relation to pre-tax profit. Summarizing the above and other methods for calculating the tax burden, the authors suggest a method for estimating the tax burden in relation to pre-tax profit. The economic sense is that the method allows for the estimation of how many roubles of taxes and fees are paid from 100 roubles of profit before tax. The most important advantages of the proposed methodology are simplicity of calculation, consideration of the aggregate amount of tax, and non-tax obligatory payments.

3. RESULTS

At present, small and medium-sized businesses are among the main participants in economic relations, acting as the "locomotive" of economic growth and the driving force of sustainable economic development. However, in world practice, a unified approach to determining the criteria for identifying small and medium-sized businesses (Table 1) has not yet been formed.

Table 1 Main criteria for the selection of small and medium-sized businesses in some countries

Country	Small businesses		Medium-sized businesses
	Micro-organizations	Small organizations	
European Union countries ¹	The number of staff: up to 10; annual turnover or balance sheet total up to 2 million euros	Number of personnel: up to 10; annual turnover or balance sheet total up to 2 million euros.	Number of staff: up to 250; annual turnover: up to 50 million euros or balance sheet total up to 43 million euros.
United States (Diachkina, 2007; Pletnev, Nikolaev, & Kampa, 2015)	Number of staff: up to 20; annual revenue up to 2 million dollars.	Number of personnel: in industries (with the exception of separate industries, where the number of personnel is up to 1500 people), mining, and construction, up to 500; in wholesale trade and the provision of services, up to 100; annual income: in construction, up to \$28.5 million; in the provision of services and retail, for most non-manufacturing sectors, up to \$6 million.	Number of personnel: 500–1500; annual income (varies by industry): up to \$30–38 million.
Russia ²	Number of personnel: up to 15; annual income: up to 120 million roubles.	Number of personnel: up to 100; annual income: up to 800 million roubles.	Number of personnel: up to 250; annual income: up to 2,000 million roubles.

In Belarus, the criteria for assigning businesses to the category of small and medium-sized businesses are similar to the Russian division in terms of the number of personnel. Thus, businesses with up to 15 people belong to micro organizations, with up to 100 people to small organizations, and with up to 250 people to medium-sized organizations. Additional criteria for the volume of annual income in Belarus are not established (Kozel, 2009).

In Kazakhstan, micro organizations include businesses with up to 15 people and up to 30,000 MCI (a monthly calculated indicator established for the relevant period by the authorities of the country), businesses with up to 250 people and up to 3,000,000 MCI belong to small organizations, and businesses with 50–250 people and an average asset value not exceeding the MCI by more than 3,000,000 times belong to medium-sized organizations (Central Asia Monitor, 2018).

Some European countries, such as Norway and Sweden, adhere to their own established criteria for identifying small and medium-sized businesses.

Small and medium-sized businesses play a significant role in the economy of economically developed countries. This is due to the high share of employment, a significant share of products in the country's GDP, etc. (Table 2).

Table 2 Main socio-economic indicators of development of small and medium-sized businesses in some countries on average over the past 5 years³ (Zakharova & Labudin, 2017; Jasra et al., 2011; Cooper, 2012)

Country	Share of small and medium-sized businesses in GDP, %	Number of small and medium-sized businesses per 100 people, units	Share employed in small and medium-sized businesses, %
United States	62	1,3	44,0
Canada	27	2,4	33,7
UK	51	2,8	53,1
France	56	4,4	61,0
Germany	53	2,9	62,9

¹Annual Report on European SMEs 2013/2014. 'A Partial and Fragile Recovery', available at: http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/files/supporting-documents/2014/annual-report-smes-2014_en.pdf (accessed 24.10.2018).

²Federal Law of 24.07.2007 No. 209-FL "On the development of small and medium-sized businesses in the Russian Federation", available at: http://www.consultant.ru/document/cons_doc_LAW_52144/2943c5f173a39f79c8830be4e1df651dcd834d40/ (accessed 02.11.2018).

³Sector of small and medium entrepreneurship, Russia and the world (July 2018), available at: <http://stolypin.institute/wp-content/uploads/2018/07/issledovanie-ier-mp-27.07.18.pdf> (accessed 04.11.2018).

Sweden	58	6,7	65,6
Italy	68	5,8	78,6
Russia	21	2,0	18,9

Russia is significantly lower in terms of the main socio-economic indicators of the development of small and medium-sized businesses in economically developed countries. Thus, the share of small and medium-sized businesses in Russia's GDP is almost three times less than in the United States and Italy, and the share employed in small and medium-sized enterprises in Russia is half the size of the United States and almost four times less than in Italy.

The number of small and medium-sized businesses per 100 people in Russia is higher than in the United States, but more than three times less than in Sweden and about three times less than in Italy.

The share of turnover of small and medium-sized businesses in the total turnover of legal entities is the highest in Portugal (71.1%) and Italy (68.8%). Russia has a low share of turnover of small and medium-sized businesses in the total turnover of legal entities (29.2%), which is significantly less compared to the United States (34.4%), the UK (44.6%), and Germany (47.5%). In the structure of turnover of small and medium-sized businesses in Russia, the highest turnover of small organizations (27.59 trillion roubles) and micro-organizations (20.87 trillion roubles) was observed in 2017; medium-sized organizations demonstrate a relatively small turnover (6.28 trillion roubles)⁴.

Analysis of the personnel structure of small and medium-sized businesses in Russia shows a significant prevalence of small organizations (where about 46% are employed) and micro organizations (where about 40% are employed) over medium-

sized organizations (where about 14% are employed). In addition, for Russia there is a very low value for the number of self-employed (about 4.9% of the total number of people employed in the economy). For comparison, the share of self-employed in the structure of employed in the UK is 12.6%, Italy 15.8%. According to the Rosstat's operational data, currently there are 5,427 thousand people in micro-organizations that are legal entities, and 1,542 thousand people are individual entrepreneurs. In small organizations that are legal entities 6,285 thousand people are employed, in small organizations that represent individual entrepreneurs, 773 thousand people. There are 1,938 thousand people employed in medium-sized organizations that are legal entities, and 34 thousand people in medium-sized organizations that are represented by individual entrepreneurs.

In the dynamics of recent years in Russia there has been a decrease in the number of small and medium-sized businesses (with the exception of micro-organizations), a decrease in the turnover of small organizations, and an increase in the turnover of medium-sized organizations. There also has been an insignificant decrease in the volume of investments in the fixed capital of small and medium-sized organizations, and a decrease in the value of non-current assets of small and medium-sized organizations (Figure 1).

Analysis of the dynamics of development of small and medium-sized businesses in Russia by type of economic activity allows conclusions to be made about the significant role and relatively large turnover of small and medium-sized businesses in agriculture. Nowadays, small and medium-sized organizations are the main producers of a number of agricultural products, provide high employment for rural residents, contribute to the protection and preservation of farmland, and contribute to the stability of agribusiness in the context of financial and economic instability and import substitution policies.

⁴Sector of small and medium entrepreneurship, Russia and the world (July 2018), available at: [http://stolypin.institute/wp-](http://stolypin.institute/wp-content/uploads/2018/07/issledovanie-ier-msp-27.07.18.pdf)

[content/uploads/2018/07/issledovanie-ier-msp-27.07.18.pdf](http://stolypin.institute/wp-content/uploads/2018/07/issledovanie-ier-msp-27.07.18.pdf) (accessed 04.11.2018).

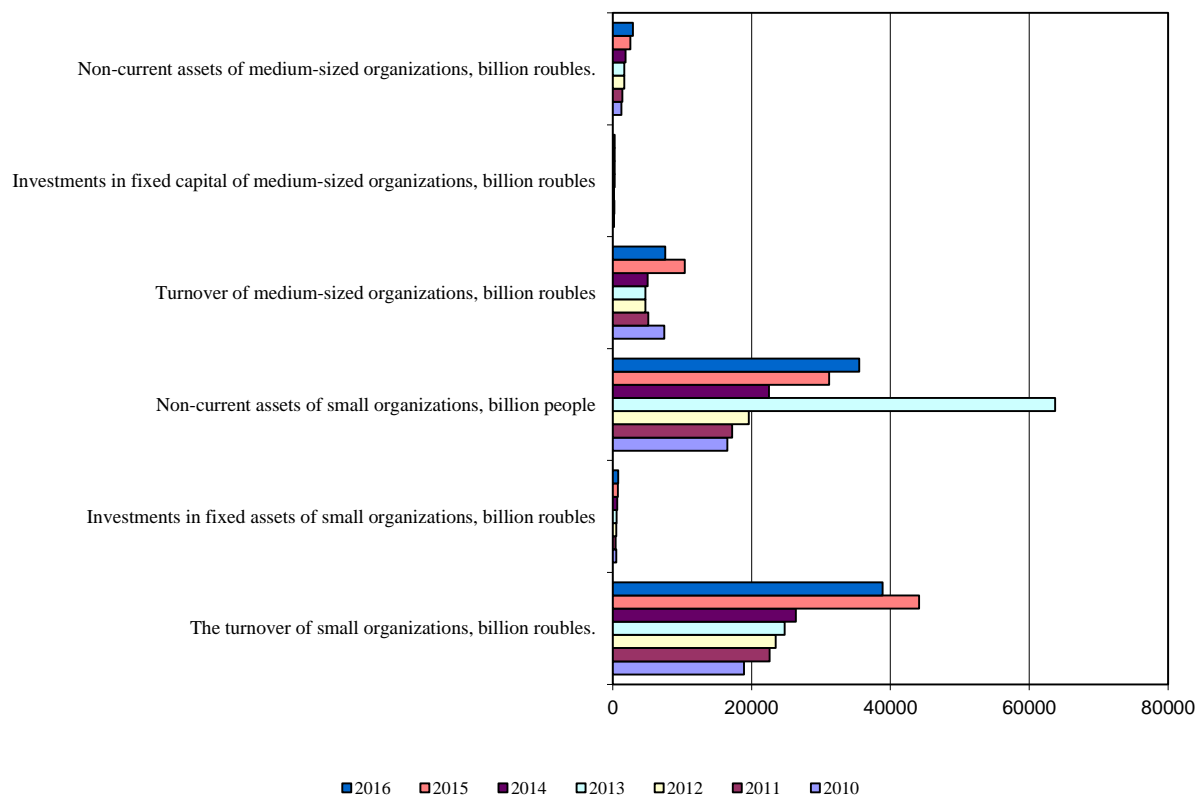


Figure 1. Dynamics of the main financial and economic indicators of small and medium-sized organizations of Russia⁵

Currently, small and medium-sized agricultural businesses in Russia produce 27% of grain, 86% of potatoes, 82% of vegetables, 28% of meat and poultry, and 52% of milk (Yanbykh & Gataulina, 2016) in the country. A survey among employees and managers of small and medium-sized organizations in Russia showed that one of the serious problems impeding business development is the high level of taxation⁶. In accordance with the results of world comparisons, Russia is among the countries with a high tax burden on business (about 7 percentage points higher than the world average), which does not correlate with the level of labour productivity and the results of financial and economic activities of taxpayer organizations^{7,8}.

In the structure of tax revenues to the Russian budget, the total share of tax payments of small and medium-sized businesses is about 23%. At the same time, the share of micro-organizations accounts for about 7%; small organizations, about 10%; medium-sized organizations, almost 6% of taxes and fees administered by legal entities of Russia.

The size of the tax burden on small and medium-sized businesses, assessed by the ratio of the amount of taxes and fees

paid to the amount of pre-tax profit, exceeded 100% in 2016 (Figure 2). Thus, the size of the relative tax burden, calculated to the amount of profit before tax, for small and medium-sized businesses in Russia significantly exceeds the tax burden on large businesses.

Small and medium-sized businesses operating in the agricultural sector of Russia apply the taxation system in the form of a unified agricultural tax (UAT). It provides a lower tax burden due to an exemption for agricultural producers from paying a number of taxes (including corporate income tax and VAT), provides for a reduced tax rate of 6% on revenues compared to the general tax regime, expressed in cash, reduced by the amount of expenses incurred and recognized (Slepneva, 2016).

Analysis of the dynamics of the calculation of the UAT by agricultural producers of Russia indicates its increase in the period from 2013 to 2016 and a slight decrease in 2017 (Table 3). This is due to a reduction in incomes of agricultural producers (by 3.36%) and, accordingly, a decrease in the tax base (by 2.57%) in 2017 compared to 2016.

⁵Small and medium entrepreneurship in Russia (2014, 2015, 2016), available at: http://www.gks.ru/bgd/regl/b15_47/Main.htm (accessed 03.11.2018).

⁶Ibid.

⁷Small, Medium, Strong. Trends in SME Performance and Business Conditions, available at: <http://dx.doi.org/10.1787/9789264275683-en> (accessed 30.10.2018).

⁸PwC Paying Taxes (2018), available at: <https://www.pwc.ch/en/insights/tax/paying-taxes-2018.html> (accessed 30.10.2018).

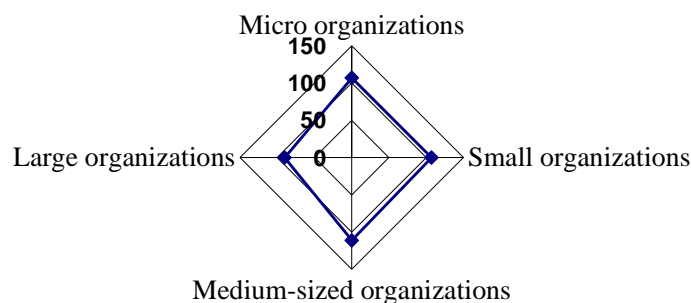


Figure 2. Tax burden on organizations of Russia, calculated in relation to the amount of profit before tax in 2016,%

The total number of UAT taxpayers grew in the analysed period. The number of taxpayers who filed tax returns on the UAT has been growing since 2014.

Table 3. Dynamics of calculation of the UAT by agricultural producers of Russia

Name of the indicator	2013	2014	2015	2016	2017
Amount of income, mln. roubles	1014203,924	1145857,237	1443238,121	1602573,218	1548773,311
Amount of expenses, mln. roubles	976507, 905	1064504,090	1295985,629	1434497,801	1390555,979
Tax base, thousand roubles	86597036	121386713	195838537	212471741	206626319
Amount of loss received in the previous tax period(s), reducing the tax base for the tax period, thousand roubles.	19852938	30770740	32019931	19205768	19291838
Amount of the calculated UAT, thousand roubles.	4024548	5453025	9586628	11367466	11192723
Number of taxpayers who submitted tax returns for UAT (unit/person)	98762	94014	98310	99716	100673

The calculation of the level of tax burden on small and medium-sized businesses in the agricultural sector, carried out according to different methods, shows a differing dimension and incompatibility by numerical value of the total value. However,

the calculation of the tax burden, performed according to the author's methodology, correlates with the absolute tax burden, the size of the tax base, and the sum of the UAT paid to the budget system of the country (Table 4).

Table 4. Calculation of the level of tax burden on small and medium-sized businesses in the agricultural industry, performed by different methods

Name of the indicator	2013	2014		2015		2016		2017	
		Value	Change in % by 2013	Value	Change in % by 2014	Value	Change in % by 2015	Value	Change in % by 2016
Absolute tax burden on 1 taxpayer (Kirova method), roubles	40749	58002	142,3	97514	168,1	113998	116,9	111179	97,5
Level of tax burden, calculated to the amount of income (Novodvorsky and Sabanin method),%	0,39	0,48	123,1	0,66	137,5	0,71	107,6	0,72	101,4
Level of tax burden, calculated to the amount of profit before tax (author's method, including insurance premiums),%	104,1	105,4	101,2	106,9	101,4	108,3	101,3	109,8	101,4
Level of tax burden, calculated to the amount of annual turnover (methodology of the Tax Policy Department of the Ministry of Finance of the Russian Federation, without insurance premiums),%	2,9	3,4	117,2	3,5	102,9	3,5	100,0	4,3	122,8
Level of tax burden, calculated to the amount of annual turnover (methodology of the Tax Policy Department of the Ministry of Finance of the Russian Federation, including insurance premiums),%	8,2	8,8	107,3	8,9	101,1	8,9	100,0	9,8	110,1

In accordance with the author's methodology, small and medium-sized businesses in the agricultural sector pay taxes and fees in the amount of 104–110 roubles from each hundred roubles of profit before tax.

4. DISCUSSION

Small and medium-sized businesses are important for the agricultural industry of Russia. Small and medium-sized businesses produce a considerable amount of agricultural products, provide solutions to the employment problem of rural residents, and create conditions for poverty reduction and sustainable development of rural areas.

The applied system of taxation of agricultural producers in Russia in the form of a unified agricultural tax provides some advantages for taxpayers. However, the assessment of the level of tax burden on small and medium-sized businesses in the agricultural sector calculated by different methods shows a differing dimension and incompatibility by the numerical value of the total value.

Thus, the absolute tax burden per one taxpayer, calculated according to the method of Kirova, showed an accelerating growth rate until 2015. Beginning in 2016, the growth rate of the absolute tax burden per taxpayer has slowed. In 2017, there was a decrease in the absolute tax burden per taxpayer compared to 2016 by 2.5%.

The level of tax burden, calculated to the amount of income according to the method of Novodvorsky and Sabanin, was characterized by growth dynamics in the analysed period.

Similar dynamics can be traced in terms of the tax burden in the agricultural sector, calculated to the amount of annual turnover according to the methodology of the Tax Policy Department of the Ministry of Finance of the Russian Federation (both with and without insurance premiums). It should be noted that the growth rate of the tax burden level excluding insurance premiums outpaced the growth rate of the tax burden level taking into account insurance premiums for the entire analysed period.

The level of tax burden calculated in relation to the amount of profit before tax according to the author's method taking into account insurance premiums shows a stable growth throughout the analysed period. However, the growth rate in 2016 slowed somewhat compared with 2015.

Thus, the level of tax burden calculated according to the author's methodology taking into account insurance premiums is more objective as it correlates with the absolute tax burden, the size of the tax base, and the amount of the unified agricultural tax paid to the budget system of the country.

5. CONCLUSION

The article reveals the author's methodology for assessing the level of tax burden on small and medium-sized businesses in the agricultural sector. The main difference of the proposed methodology is the consideration of the amount of tax and other non-tax mandatory payments (including insurance premiums).

The economic meaning of this method is that it allows for the estimation of the number of roubles of taxes and fees paid from hundred roubles of profit before tax.

REFERENCES

- [1] Central Asia Monitor (18.10.2018). "On the results of the development of small and medium-sized businesses in Kazakhstan", available at: <https://camonitor.kz/index.php> (accessed 02.11.2018).
- [2] Cooper, S. (2012). "Instagram's small workforce legitimizes other small start-ups". *Forbes*, 17, available at: <http://www.forbes.com/sites/stevecooper/2012/04/17/instagrams-small-workforce-legitimizes-others-small-start-ups> (accessed 03.10.2018).
- [3] Diachkina, L.A. (2007). "Analysis of the practice of taxation of small businesses in Russia and abroad", *All for the Accountant*, 4(196): 42–52.
- [4] Jasra, J.M., M.A. Khan, A.I. Hunjra, R.A.U. Rehman, and R.I. Azam (2011). "Determinants of business success of small and medium enterprises", *International Journal of Business and Social Science*, 2(20): 274–281.
- [5] Kozel, K.P. (2009). "Features of the criteria for attributing to small and medium-sized businesses and their differences in Belarus, Russia and Poland", *Bulletin of BNTU*, 1: 90–94.
- [6] Pletnev, DA, E.V. Nikolaev, and A. Kampa (2015). "Comparative analysis of the criteria for classifying enterprises as small and medium-sized businesses in different countries", *Business strategies*, 9(17): 30–36.
- [7] Slepneva, L.R. (2016). "Taxation system for agricultural producers: Problems of application and directions for improvement". *Global Scientific Potential*, 11(68): 48–54.
- [8] Zakharova, N.V. and A.V. Labudin (2017). "Small and medium entrepreneurship in European countries: The main development trends", *Management Consulting*, 12: 64–77.
- [9] Yanbykh, R. and E.Gataulina (2016). "Vertical coordination of small business in agriculture". *Economist*, 8: 78–86.