Providing Conditions for the Development of Small Business in the Russian Agroindustry

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Abstract:

**Purpose:** The research goal is to evaluate the state support efficiency in agriculture through the development of small businesses.

**Design/Methodology/Approach:** The paper considers the mechanism of state support for small agricultural businesses and its impact on the efficiency of agricultural production in different categories of farms, budget efficiency, the need and prospects for directing budget funds for the development of small businesses in agriculture. Farms are divided into groups depending on the marginal revenue.

**Findings:** The efficiency of allocating budget funds of the consolidated budget is calculated. The paper describes an original approach to providing conditions for the long-term development of small businesses in agriculture.

**Practical Implications:** If Bashkortostan continues to support the agricultural sector, the government can promote small farms and achieve sustainable growth of agricultural production by 2025.

**Originality/Value:** Small business development in agriculture must take into account not only the scale of production but the industry specifics as well that depends much on climatic conditions and soil fertility. These factors are of particular relevance for state support considerations and economic performance.

**Keywords:** Agribusiness, budget efficiency, cost-efficiency of agricultural production, state support for agriculture.

**JEL Classification:** Q01, Q13.

**Research type:** Research article.

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1. Introduction

Small businesses are receiving increasing attention in current conditions of economic development. They employ the rural population and can successfully adapt to both needs of customers and the competitive business environment (Panasyuk et al., 2014). It is crucial for the progress of rural areas, as small businesses solve the problem of unemployment and increase the level of the population's income (Belyaev, Sokolova and Karpushova, 2017). Consequently, the development of small businesses in the agroindustrial sector contributes to more efficient use of production resources and is very important for ensuring food security.

Small business faces such challenges as difficulties in expanding production (establishing sales channels, lack of working capital), time pressure for the head of an enterprise to learn novelties in legislation and conditions to conduct production activities (new provisions, requirements, standards, etc.) (Wu et al., 2018). The linear organizational structure has led to the fact that the head in one is responsible for the production and financial activities, which requires competencies and sole responsibility for decisions. To save costs, a Russian farmer makes use of consulting agencies only to prepare accounting statements.

In a market economy, the ability to cooperate is the main determining factor of competitiveness. The priority of the EU’s Common agricultural policy in the current programming period is to promote and strengthen cooperation between agricultural entities, maintain the agri-food chain, forestry, and rural development (Potori, Kovács and Vásáry, 2013). One way to develop agricultural cooperation among farmers is to enable participants to make collective investments to increase value-added and exploit economies of scale, as well as to form alliances, associations, networks, and clusters. Along with market concentration due to a greater number of large and small sellers of agricultural products (including foreign sellers), these steps can stimulate the dissemination of experience, improve efficiency and promote the innovative potential of agriculture.

Rapid changes in external factors in agriculture as an economic sector and the world economy has led to the need for new tools to regulate the activities of farmers in the agroindustry development strategy. The complicated situation relating to the closure of national borders due to the coronavirus pandemic, as well as trade wars, requires solving food security issues at the level of state regulation. A common interaction framework should be focused on the equal and sustainable development of all producers in agroindustry. For example, a unified transparent information system to get subsidies will provide accurate data on the performance of a particular entity and the required level of state support. One of the primary steps of this information system is to create a unified electronic budget system. Evolving an electronic budget system with user accounts will simplify the mechanism for receiving state support as well as charge every recipient with the responsibility to the state (Potori et al., 2013).
Subsidies can increase the productivity of farms both in developed and emerging economies. The financial aid, especially those that are directly related to specific industries or activities, can change the production and investment behavior of farmers and expand the production facilities of supported industries. It should be noted that subsidies can create unequal conditions in trade and result in losses for producers and their trading partners. The practice of subsidies can have serious political consequences, especially at a time of great uncertainty in international trade relations (Svanidze and Götz, 2019).

The Russian Federation has significant export potential in the international agricultural market and can address global food security (Trukhachev et al., 2018). State support for agricultural producers in the Russian Federation is provided under the current state scheme for the development of agriculture and regulation of markets for agricultural products, raw materials, and food (Government of the Russian Federation, 2012). It defines the main measures for the development of specific agroindustrial sectors and their financing, as well as target indicators for the subjects of the Federation. Target indicators and the amount of funding are defined by the level of target achievements (Government of the Russian Federation, 2014).

Despite the differences in departmental and territorial affiliation, each subject of the Federation annually determines the “main directions” of agricultural development for the planning period. It must be carried out on a single methodological basis. Alterations in approaches should be conditional upon the specifics of the development of the respective economic entities and territories. Thus, budget efficiency is advisable to study at the level of a federal subject. The given research analyzes the Republic of Bashkortostan. It is a highly developed, stable, and one of the largest regions in Russia. The republic is a supporting point of the Russian economy that provides sustainable economic development based on a combination of national and regional interests (Khasanov et al., 2019, Sultanova et al., 2019).

The Russian state policy has a clear delineation of powers between federal government bodies, state authorities of the subjects of the Russian Federation, and local governments to deal with the support to small and medium businesses. It places their responsibilities and ensures equal access to receive support under the terms of its provision (Government of the Russian Federation, 2007). A more powerful production base of large enterprises allows them to produce more products, respectively; they can count on more state support. Therefore, there is a concept of a small business defined by law as individuals engaged in business without a legal entity, as well as small commercial companies.

Small business in Russia creates about 15% of GDP, while in the US and Japan, about 70-75% (Askarov and Stovba, 2012). There are limits on the number of employees and annual revenues set for small businesses in Russia. For instance, small enterprises are companies with up to 100 employees and annual sales revenue of up to 12 million dollars. Meanwhile, microenterprises consist of up to 15 people; their annual sales
revenue is up to 2 million dollars. The share of small and medium enterprises in Russia’s GDP is currently 21%, while in other countries, it is, on average, 58% (Askarova, Girfanova and Nigmatullina, 2020). Thus, the study of state support for small businesses in agriculture will determine its efficiency and promising areas.

The research goal is to evaluate the state support efficiency in agriculture through the development of small businesses. The key objectives of the study are an assessment of the existing mechanism for supporting small agricultural business, comparative analysis of budget efficiency estimation, dynamic analysis of the efficient use of loans and budget funds by agricultural producers, and construction of a correlation and regression model of the factors’ impact on the result of production activities.

2. Research Methodology

Achieving the regional target of state support allows the subject to expect an increase in funding for state program activities from the Federal budget by the approved methodology. Thus, the share of the i-th subject of the Russian Federation in the indicators of farm development \(a_{10i}\) is calculated using the formula (Government of the Russian Federation, 2012):

\[
a_{10i} = \frac{\sum_{i=1}^{n10} (0.2 \times D_{grossi} + 0.8 \times D_{spacei}) \times Y_i}{\sum_{i=1}^{n10} (0.2 \times D_{grossi} + 0.8 \times D_{spacei})} \times Y_i
\]

where:

- \(n10\) – the number of subjects of the Russian Federation where the development of small businesses is a priority for the corresponding financial year. The agroindustry development is a key priority for all the subjects of the Russian Federation except some regions;

- \(Y_i\) – the maximum level of co-financing of the expenditure obligation of the i-th subject of the Russian Federation from the Federal budget for the next financial year (as a percentage), determined by the Rules for state subsidy support (Government of the Russian Federation, 2014);

- \(D_{grossi}\) – the share of the average value of the gross crop and livestock production produced by private farms, including sole proprietors, in the i-th subject of the Russian Federation for three years preceding the current financial year, in the average value of the gross crop and livestock production produced by farms, including sole proprietors, for three years preceding the current financial year, determined by the formula (Government of the Russian Federation, 2012):
Providing Conditions for the Development of Small Business in the Russian Agroindustry

168

\[ D_{\text{grossi}} = \frac{k_i \times V_{\text{grossi}}}{\sum_{i=1}^{n=10} k_i \times V_{\text{grossi}}} \] (2)

where:

- \( V_{\text{grossi}} \) – the average value of the gross crop and livestock production produced by private farms, including sole proprietors, in the \( i \)-th subject of the Russian Federation, where the development of farms is a priority for the corresponding financial year, for three years preceding the current financial year, measured by data from the Federal state statistics service (2019);
- \( k_i \) – leverage factor of the \( i \)-th subject of the Russian Federation.

The given research is based on the methods to calculate the relative values of the structure and dynamics of production volumes and state support. Comparative analysis of these indicators, a statistical grouping of agricultural producers by the level of marginal revenue made it possible to identify a quantitative relationship between the level of state support and the results achieved. The methods used also helped to distinguish a group of agricultural producers with the most effective use of budget funds. The gains of farmers, when calculating the cost-efficiency, include direct state payments, which leads to an overestimation of the profit rate. Therefore, the analysis also takes into account receipts less state subsidies to get adjusted revenue. Dynamic analysis of the state support level made provisions to determine its efficiency in large and small agricultural enterprises.

The correlation-regression analysis evaluated the efficiency of state financing for small businesses in agriculture. It was based on the following indicators: (\( Y_1 \)) – the production of gross output per dollar of state funding (dollars); (\( Y_2 \)) – revenue per dollar of state funding (dollars); (\( Y_3 \)) – total profitability (%); (\( X_i \)) – the amount of budget subsidies per 100 ha of farmland (thousand dollars).


3. Research Results

A decisive provision for the development of small businesses in Russia is the approval of the national project “Small and medium-businesses and support for sole proprietorship initiative”. Following the methodology used, the estimated amount of support for the Republic of Bashkortostan to finance small business development will be at least 13 million dollars in 2020, which is 24% of the total amount of state support for the development of agriculture from the Federal budget.
In 2019, more than 17 million 951 thousand dollars were allocated for state support of small businesses in the agro-industrial complex of Bashkortostan, of which: 9 million dollars from the Federal budget and 8 million dollars from the budget of the Republic of Bashkortostan, 951 thousand dollars – own funds.

Table 1. Efficiency of loans and subsidies for agriculture in the Republic of Bashkortostan in 2009 and 2019

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Loans granted:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>per 1 ha of farmland, dollars</td>
<td>8.65</td>
<td>4.29</td>
<td>16.39</td>
<td>12.61</td>
<td>189.5</td>
</tr>
<tr>
<td>per 1 dollar of gross output, dollars</td>
<td>0.15</td>
<td>0.03</td>
<td>0.11</td>
<td>0.09</td>
<td>74.1</td>
</tr>
<tr>
<td>per one farm, thousand dollars</td>
<td>41.7</td>
<td>0.5</td>
<td>113.9</td>
<td>3.5</td>
<td>273.4</td>
</tr>
<tr>
<td>Subsidies received:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>per 1 ha of farmland, dollars</td>
<td>14.9</td>
<td>77.5</td>
<td>10.6</td>
<td>17.4</td>
<td>71.6</td>
</tr>
<tr>
<td>per 1 dollar of gross output, dollars</td>
<td>0.26</td>
<td>0.57</td>
<td>0.07</td>
<td>0.12</td>
<td>28.0</td>
</tr>
<tr>
<td>per one farm, thousand dollars</td>
<td>71.6</td>
<td>9.4</td>
<td>73.9</td>
<td>4.8</td>
<td>103.3</td>
</tr>
<tr>
<td>Produced products:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>per 1 ha of farmland, dollars</td>
<td>56.8</td>
<td>137.1</td>
<td>145.1</td>
<td>141.4</td>
<td>255.7</td>
</tr>
</tbody>
</table>
Providing Conditions for the Development of Small Business in the Russian Agroindustry

For the ten-year 2009-2019 period, there is an evident growth of loans received in small businesses per hectare of farmland, per 1 dollar of gross output, as well as per a farm. This indicates the acceptance of banking products by small farmers and the positive effect of soft lending. At the same time, in the large-scale agribusiness, the trend is reversed. The attracted loans per 1 hectare of farmland decreased by 5.6%, and their efficiency in finished products dropped by 25.9%. Thus, attracted loans are more effective in small businesses. As for receiving subsidies, it is necessary to note their overall reduction for all groups of producers. Over ten years, the state has reduced subsidies for large farms by 64.3% per 1 hectare of farmland, and by 88.8% for small businesses.

This trend was also reflected in the total volume of products produced (taking into account the growth over ten years). There is an undeniable need for direct and indirect state support measures to ensure food security, employment, and rural population growth. Further, the statistical grouping was used to assess the budget efficiency for 2019 for three main groups of enterprises: large, medium, and small (by the grouping, marginal revenues received from business activities) (Government of the Russian Federation, 2007).

### Table 2. Efficiency of production and financial activities of business forms depending on marginal revenue in 2019

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Groups of agricultural producers by revenue level in the Republic of Bashkortostan*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medium farms (up to 31 billion dollars)</td>
</tr>
<tr>
<td>Number of producers, units</td>
<td>25</td>
</tr>
<tr>
<td>Total marginal revenue, million dollars</td>
<td>1050</td>
</tr>
<tr>
<td>The volume of state support provided, million dollars</td>
<td>14.9</td>
</tr>
</tbody>
</table>

Source: Own study.
The results of calculating the efficiency of production for groups of farms showed that the application of the current set of measures in the field of microbusiness development makes it possible to conduct profitable production – 25.6%, when state support is excluded from the calculation, the profitability decreases sharply (-18 percentage points).

At the same time, about 15 thousand people are being employed in small agricultural businesses of the Republic of Bashkortostan. It reduces social tension in rural areas, replenishes state extra-budgetary funds, and provides a significant number of agricultural products. There are more than 3 thousand microenterprises. It indicates a great interest of the population in running their own business in agriculture and filling free-market segments.

Thus, state support is one of the main tools for ensuring profitable agricultural production, which encourages the rural population to start employment in agribusiness for livelihood improvement. Budget efficiency in medium and small companies is much higher, which is explained by the effect of easy tax terms to microenterprises. Some state support does not directly affect the results and increase production (refund of insurance burden, compensation for losses in emergencies).

In contrast, the application of incentive measures for small businesses (soft lending, recharge of production costs) is effective. Thus, only large agricultural enterprises of the region get refunding for insurance burden; smaller farms do not have the opportunity to use this aid.
The correlation-regression analysis showed the following results, presented in Table 3.

**Table 3. The results of correlation and regression analysis**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Connection equation</th>
<th>Coefficient of determination</th>
<th>Coefficient of elasticity</th>
<th>Coefficient of correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross production per 100 ha of farmland (thousand dollars); Y1</td>
<td>( Y = 6.09 + 0.2 \ X )</td>
<td>0.25</td>
<td>0.78</td>
<td>0.5</td>
</tr>
<tr>
<td>Earnings per 100 ha of farmland (thousand dollars); Y2</td>
<td>( Y = 63.53 + 1.37 \ X )</td>
<td>0.02</td>
<td>0.7</td>
<td>0.14</td>
</tr>
<tr>
<td>Total profitability (%) , Y3</td>
<td>( Y = 18.03 + 0.10 \ X )</td>
<td>0.01</td>
<td>0.38</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Source: Own study.

Analysis of correlation between the size of the subsidies per 100 hectares of farmland and indicators of gross output proved that the gross production is closely connected with the level of state support of farms (the correlation coefficient is 0.5), the change in the volume of profits less correlated with the volume of budgetary resources (0.14). The resulting relationship equations show a direct relationship between the volume of state finances and the selected indicators. The interpretation of the parameters showed...
that with an increase in subsidies by 1 thousand dollars per 100 ha of farmland, the
gross output per 100 ha of agricultural land would increase by 200 dollars; the
elasticity indicator explains 78% of the variation in the effective value. In other words,
the size of gross output depends almost entirely on the size of budget finances.

If the dependent variable increases by 1 thousand dollars per 100 ha of farmland, the
profit will increase by $1.37 thousand from 100 ha, making the absolute result of
70%. Subsidies have the lowest impact on the overall profitability (38%), so if the
state support increases by 1 unit, the profitability will increase by 0.1%.

Thus, subsidies should be linked to specific financial results or directed to overcome
unforeseen circumstances (drought, flooding, etc.). The number of subsidies should
not be equal for all subjects of the agricultural economy. Small agricultural enterprises
are in different climatic and economic zones, have different production potential.
Hence, there is a need to set subsidy standards applicable to each economic entity.

4. Discussion

The criteria for identifying farmers as small businesses and the forms of support for
agriculture vary across the world. In the European Union member states, economic
entities are classified as small and medium-sized enterprises by EU Recommendation
2003/361/EG issued in 2003. According to these recommendations, small businesses
are companies with 10 to 49 employees and an average annual turnover (balance sheet
amount) of up to 10 million euros (Panasyuk et al., 2014).

Foreign experience of state regulation of agriculture includes a set of tools that affect
returns of a farmer, a structure of agricultural production, a market of agricultural
products, a social structure of a village, intersectoral and inter-farm relations. Direct
payments are a key element of the European Union's agricultural support. This tool,
in the form of payment independent of production, protects returns of agricultural
holdings and shields against their risks.

Thus, the effects of considerable fluctuations in agricultural prices are mitigated.
Besides, direct payments provide a one-time payment for agricultural services that are
not paid on the market. They serve as financial compensation for high standards since
farmers in Germany and the EU operate to much higher standards of environmental,
animal, and consumer protection than farmers in some non-EU countries.

Supplement to small and medium farms: all farms receive additional 50 euros/ha for
the first 30 hectares and 30 euros/ha for additional 16 hectares. Thus, small and
medium farms with a small area have additional financial support. Since 2015, young
farmers under the age of 40 receive additional assistance of about 44 euros/ha
(maximum of five years) for 90 hectares of farmland on request (Svanidze and Götz,
2019).
In the United States, there are three ways to classify businesses as small, the field of activity, the number of employees in the company, and the regulatory approach. Enterprises are considered the smallest (microenterprises) if the number of employees in them does not exceed 25 people, including the owner. Small businesses are companies with 25 to 99 employees. In terms of annual revenue, small agricultural businesses should not exceed 0.75 million dollars, but there are exceptions for sub-sectors of agriculture. For example, livestock farms that keep animals on feeding lots with revenues of 7.5 million dollars and producers of chicken eggs with revenues of 15 million dollars are small businesses (Charlton et al., 2019).

In the United States, the main component of government regulation and support for agriculture is the financial and credit mechanism. Funding is provided in the form of budget allocations for certain target programs. The primary federal target programs are “Scientific support” and “Farm income stabilization”. A total of 30-50% of the budget funds are allocated for the implementation of the latter program. The program “Farm income stabilization” includes the subprograms “Crop Insurance” and “Farm Loan”.

The US Department of agriculture controls several financial and credit enterprises that provide soft loans to farmers, i.e., the financial and credit mechanism is the central part of reproduction in agriculture (Panasyuk et al., 2014). In Russia, such organizations are authorized banks that have signed agreements with the Ministry of Agriculture of the Russian Federation. Loans at a preferential interest rate are distributed through them.

At the same time, it is necessary to evaluate the effectiveness of state support for small businesses in a particular region of Russia both by the state program criteria and the ratio of payments made to the budget and extra-budgetary funds to the amount of grants and subsidies received from the consolidated budget of the region. In Russia, there are also different support programs: from direct support for agricultural enterprises to individual employees, young professionals, assistance in training personnel for agroindustry.

US government programs to support agriculture are selective, not general in their goals. It means that many farmers stand aside and have to find their solutions to increase profits from production activities. Farm support policies based on subsidies emphasize that agriculture is the engine of the rural economy. However, these macro-targeted policies are often too general, so that reduced agricultural subsidies will not have a decisive effect. However, the effectiveness of government intervention will increase significantly if it focuses on promoting cooperation between agricultural firms that can benefit from market integration (Svanidze and Götz, 2019).

Agricultural support programs in Mexico provide subsidies to individuals and companies to support production, post-harvest management, marketing, and other activities aimed at modernizing the agricultural sector, as well as addressing rural
poverty. Investments in crop production have become an essential element of modernizing Mexican agriculture. Government aid has played a particularly important role in the development and growth of the fruit and vegetable industry in Mexico. Thanks to the support, producers received much-needed capital, which is usually a severe obstacle in developing countries (Wu et al., 2018).

In the Russian Federation, decisions regarding the amount of farm subsidies for single agricultural producers are made by the local government based on allocated funding and candidate's performance reports. Govorunova et al. (2017) analyzed the existing methods of budget efficiency. They found that they affect either its directions or determine the impact of subsidies on increasing the profitability of agricultural production. The generalized indicators proposed by the authors make it possible to evaluate the entire set of measures of state support for agriculture in an aggregated form. Still, many of them are difficult to perceive since they are based on the use of mathematical apparatus.

Therefore, it is considered appropriate to use an indicative assessment of the target indicators reflected in the state program (Govorunova et al., 2017). In this study, the assessment is based on indicators used by agricultural analysts. It makes analysis accessible and understandable for a manager and an expert of any business entity. This study provides evidence that small businesses in agriculture in Russia are supported by the state, which contributes to the creation of enterprises aimed at results.

5. Conclusions

The results showed that the application of the current set of measures in the field of microbusiness development makes it possible to conduct profitable production being 25.6%. Profitability decreases sharply (-18 percentage points) when state support is excluded from the calculation.

Budget efficiency in medium and small companies is much higher, which is explained by the effect of easy tax terms to microenterprises.

At this stage of Russian agroindustry development, some “green basket” and “yellow basket” measures can be considered acceptable. Thus, a refund of insurance burden and loss compensation in emergencies do not directly affect the results and increase production. In contrast, soft lending and recharge of production costs proved to be effective. If Bashkortostan continues to support the agricultural sector, the government can promote small farms and achieve sustainable growth of agricultural production by 2025.

The authors of the given paper claim that it is not appropriate to assess the activities of small businesses only on the indicators of state development programs. They reflect the efficiency of farms that have received grants to expand their activities and provide material and technical equipment for agricultural consumer cooperatives. This method
of assessment excludes the state support granted on a general basis to farms that have the status of agricultural producers. The efficiency of state support for small businesses in a particular region of Russia (received the aid in corresponding period) must be evaluated both by the state program criteria and the ratio of payments made to the budget and extra-budgetary funds to the amount of grants and subsidies received from the consolidated budget of the region.

References:


