

Architecture of economic activity efficiency of agricultural fruit producers of the region under sanctions

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Abstract. In the current realities, it is engineering and dealer services that take into account the balance of interests to ensure the development of management decisions that contribute to improving the quality of activities of fruit growing organizations in the region, the effective use of engineering innovations and equity capital. During the study, an assessment was made of entrepreneurial activity, the duration of the operating and financial cycles, financial stability of engineering and dealer organizations, and a factor analysis of return on capital was carried out, using the example of manufacturers of agricultural machinery for fruit growing. The assessment of indicators included an assessment of turnover of current assets, profitability, SWOT analysis and identification of risks of reducing the efficiency of business activities, taking into account factors affecting the optimization of leverage. Low profitability of the engineering and dealer business is associated with an ineffective pricing strategy, setting low prices when participating in government contracts and a significant amount of variable costs in the overall cost structure. To improve the situation, it was proposed to optimize the work of dealer centers and revise the pricing policy.

1 Introduction

In the modern world, the financial condition and performance of engineering organizations, including the agricultural sector, depend on various factors. Macroeconomic factors, such as the socio-economic situation in the country, legislation, inflation, currency fluctuations and economic sanctions, have a significant impact on the activities of engineering organizations. Microeconomic aspects, such as the availability of sufficient equity capital, highly qualified personnel, reliable suppliers, stable demand for agricultural products, effective management and sustainable sales volumes, also play an important role in the successful functioning of engineering and dealer organizations. In this regard, optimizing the financial condition of engineering organizations in the region is a necessity. Identification of current factors influencing the financial results and efficiency of

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engineering organizations, and making management decisions based on this analysis contribute to improving the quality of their work. Therefore, this research topic is relevant and important.

The scientific novelty lies in the development of recommendations for expanding the range of engineering and dealer services, as well as making adjustments to the pricing policy of agricultural equipment manufacturers in order to increase the efficiency of their economic activities under sanctions.

Purpose and objectives of the study. The goal is to develop scientifically based recommendations to optimize the financial condition of modern engineering and dealer organizations in the region under sanctions. To achieve this goal, the following tasks were set: to develop methodological tools for optimizing the financial condition of modern engineering and dealer organizations in the region under sanctions; to develop methods for regional assessment of economic relationships in the formation of indicators of the financial position of engineering and dealer organizations specializing in the production of agricultural machinery in a given region.

Research methods. To conduct the study, financial statements for the period from 2019-2021 were used. and materials of the Federal Tax Service of the Russian Federation. A method was developed for monitoring the performance of engineering and dealer organizations in the region under sanctions, which allows for timely management decisions to be made.

As part of the study, the availability of resources was assessed, the most suitable channel of funding sources was selected, and an analysis of quality and quantity was carried out. The performance efficiency was assessed using indicators that take into account the reduction of business risks.

2 Materials and Methods

The indicators presented in Table 1 were selected as indicators that take into account the effectiveness of the activities of engineering and dealer organizations in the context of changing international conditions.

Table 1. Identified performance indicators of economic entities in the region.

Indicator group	Purpose of analysis	Composition of odds
1. Assessment of turnover of current assets	Determine the speed of circulation of working capital and funds in calculations to find effective management solutions.	Turnover ratios: current assets, inventories, accounts payable and receivable, cash; Operating cycle time; Duration of the financial cycle.
2. Profitability assessment	Determine the level of profitability in combination with an analysis of costs as part of the cost (variables, constants) to find the necessary management decisions.	Return on sales; Product profitability (costs); Cost structure assessment.
3. SWOT analysis and identification of risks of reducing business efficiency	Identify opportunities to optimize costs, revenue growth, and sales profits.	Strengths based on the results of the analysis of business efficiency; Weak sides; Opportunities for fruit growing organizations to improve financial results.

Source: compiled by the authors.

In addition to performance indicators, financial results and profitability, the analysis of the financial condition of engineering and dealer organizations in agriculture should pay attention to several additional aspects. What is important is the high turnover of assets and working capital, which helps to increase financial results due to the rapid turnover of working capital. Factors influencing the performance of regional engineering and dealer organizations include entrepreneurial activity, length of operating and financial cycles, and financial stability. The presence of own working capital and the inclusion of long-term liabilities in the structure of financing sources have a positive effect on the financial results and efficiency of regional engineering and dealer organizations.

The Federal Tax Service has established profitability standards for various types of activities. For example, for manufacturers of agricultural machinery this is 3.2% for 2019. This indicator can serve as a guide to profitability of sales. It is recommended that agricultural machinery manufacturers adhere to this level when developing a pricing strategy. This year, the percentage may be half the standard, with the possibility of increasing in the subsequent period [1].

The algorithm for assessing the financial position of agricultural machinery manufacturers in the region, which has been developed, takes into account key parameters, especially in the context of changes in the global market. To achieve sales growth and changes in pricing, the implementation of effective management decisions is required.

A study of the financial condition of agricultural machinery manufacturers in the region revealed low levels of profitability. To solve these problems, it is proposed to intensify the activities of engineering and dealer centers, which not only sell agricultural machinery under government contracts, but also provide their services to agricultural organizations in agribusiness and represent the interests of various stakeholders. The low efficiency of pricing policy for participation in government contracts and the high share of variable costs in the total cost of production are the reasons for this situation. In addition, engineering and dealer centers provide service and supply of spare parts.

Currently, the network of dealers cooperating with agricultural producers includes 51 companies, of which 25 are located in Russia, and the rest in the CIS countries.

Only 9 out of 25 companies involved in the sale of agricultural machinery in Russia also offer spare parts, which is a missed economic opportunity. Table 2 presents companies that are official dealers for agricultural producers. To achieve economic benefits, this area should be actively developed in these companies.

From the list of these companies, 12 are engaged in the sale of spare parts, and 11 provide engineering and maintenance services.

Table 2. Sale of spare parts and service of sold equipment by dealers

Name of company	Location	Kind of activity		
		car sale	sale of spare parts	engineering and service
LLC PFK Spetstekhkomplekt	Yakutsk city	+	+	–
JSC Techservice-Blagoveshchensk	Blagoveshchensk city	+	+	+
LLC Interspetstrans	Surgut city	+	–	–
LLC Quarry Machines	Irkutsk city	+	+	+
LLC PKF Omsk Autocenter	Omsk city	+	+	–
LLC PKF Spetstekhkomplekt	Yekaterinburg city	+	+	–
Ural Resources LLC	Novy Urengoy city	+	–	–
LLC TK UZST	Chelyabinsk city	+	–	–
LLC Ural ST	Usinsk city	+	–	–
LLC UralAZ-Yugra	Surgut city	+	–	+

LLC Automotive Company Samara	Samara city	+	+	+
LLC Autocentre Avtograd	Kaliningrad city	+	+	-
LLC Autocenter Gas-Leader	Zorinsky village, Saratov district	+	-	-
Autoexpress-Plus LLC	Vologda city	+	+	+
LLC Group of Companies Vertical	Saint Petersburg city	+	+	+
LLC Kraevoy Uralautocenter	Krasnoyarsk city	+	+	+
Orion-Motors LLC	Krasnoyarsk city	+	+	-
LLC Sibtranstekhservice	Kemerovo city	+	-	+
SpetsMash LLC	Naberezhnye Chelny city	+	-	-
Tekhmashinvest LLC	Khabarovsk city	+	+	+
Techservice LLC - Khabarovsk	Khabarovsk city	+	-	-
LLC Techservice MSK	Ivanteevka city, Moscow region	+	-	-
LLC Tyumenneftespetstrans	Tyumen city	+	-	+
YarKamp LLC	Shchedrino village, Yaroslavl district	+	-	+
LLC PKF AtlantAvto	Tyumen city	+	-	-

Source: compiled by the authors.

+ The organization carries out the specified type of activity.

- The organization does not carry out this type of activity.

It is important to note that only 7 companies from this list cover the full range of services, including car sales, spare parts and service.

It is important to note that only 7 companies from this list offer a full range of services, including the sale of agricultural equipment: cars, the supply of spare parts, engineering and service.

Table 3. Income structure

Indicator name	2019 year		2020 year		2021 year	
	thousand roubles	%	thousand roubles	%	thousand roubles	%
Revenue, including:	279 186	100	74 229	100	228 136	100
sale of agricultural machinery by the manufacturer	54 553	19.54	7 534	10.15	34 334	15.05
sale of agricultural machinery through official dealers	109 273	39.14	27 160	36.59	86 441	37.89
sale of spare parts	58 992	21.13	21 207	28.57	46 699	20.47
logistics support for engineering and service centers	56 368	20.19	18 327	24.69	60 661	26.59

Source: compiled by the authors.

It is necessary to fully and effectively use the potential of dealers and pay attention to the range of their services in the field of sales of spare parts. Table 3 presents revenue data for the period from 2019 to 2021, organized by type of activity.

3 Results and Discussion

The results show that a developed and effectively structured dealer network accounts for the major share of total sales and revenue during the period 2019 to 2021. Sales through dealers also had negative dynamics, decreasing by 1.25%. The overall dynamics of own

sales was also negative, decreasing by 4.49%. However, the sales volume of spare parts increased significantly by 28.57% for the entire period under review.

Additional income growth can be achieved through cooperation between agricultural equipment manufacturers and official dealers who specialize only in the sale of equipment. It is also recommended to increase prices for all agricultural machinery, taking into account the level of inflation. These changes in pricing will increase the level of profitability [5].

To improve the financial condition of agricultural machinery manufacturers in the region in the context of changing international conditions for the planned period, the following measures are proposed:

1) Concluding contracts with Russian dealer companies specializing exclusively in the sale of agricultural machinery and spare parts. It is assumed that each dealer company will be able to receive an average profit from the sale of spare parts in the amount of 4 million 765 thousand 200 rubles. Such contracts will lead to a 13% increase in revenue. Additional income from the sale of spare parts for 13 dealer companies dealing only with agricultural machinery will average 6 million 194 thousand 800 rubles (according to Table 4) [7].

2) Adjustment of prices for manufactured agricultural machinery in accordance with the inflation rate in the country in 2021, which will lead to an increase in overall profits by at least 4.1%. The planned profit from sales is estimated at 6 million 559 thousand rubles, compared to 214 thousand rubles in 2019. The increase in income will be 4.1%, or 9 million 354 thousand rubles, and the cost of material costs will also increase by 4.1%. This will lead to an increase in material costs for the production of agricultural machinery and spare parts, but the profitability of the activity will increase. The results of the economic justification for these measures are presented in Table 4.

Table 4. Changes in pricing policy and expansion of dealer services when assessing the financial condition of regional equipment production organizations

Indicator name	2021 year, thousand rubles	Change due to events, thousand rubles	Planned period, thousand rubles	Growth rate, %
Action 1 – intensification of the activities of 13 dealer companies under agreements for the sale of spare parts				
Revenue from sales of spare parts	46699.0	6194.8	52894.2	113.3
Cost of spare parts sold	40428.5	4866.4	45294.9	112.0
Revenue from sales	6270.9	1328.4	7599.3	121.2
Measure 2 – increasing the cost (price) of manufactured agricultural machinery at the 2021 inflation rate of 4.1%				
Revenue	228 136	9 354	237 490	104.10
Cost, including:	227 922	3 008	230 930	101.32
– material costs	73 368	3 008	76 376	104.10
Revenue from sales	214	–	6 559	30.6 times
Total efficiency of economic activities for two activities				
Revenue	228 136	–	243 684.4	106.82
Cost price	227 922	–	235 796.5	103.45
Revenue from sales	214	–	7 887.9	36.8 times
Net profit	227	–	6 310.3	21 times

Source: compiled by the authors.

General changes in financial results will be as follows: revenue will increase by 6.82%, cost will increase by 3.45%, sales profit will change. The results of the analysis of changes in indicators characterizing the financial position of organizations in a changing international situation are presented in Table 5 [8].

The expected changes in financial results will be as follows: revenue will increase by 6.82%, cost will increase by 3.45%, and sales profit will also change. The results of the analysis of changes in indicators related to the changing international situation are presented in Table 5, reflecting the financial position of agricultural machinery organizations in the region.

Table 5. Changes in foreign policy in the planning period as a result of measures to optimize the financial condition of agricultural machinery organizations in the

Indicator name	Indicator value		
	2021 г.	planning period	economic effect
Return on sales, %	0.09	3,24	3.14
Revenue, thousand roubles	228 136	243 684	15 548
Profit from sales, thousand roubles	214	7 888	7 674
Profitability of products (costs), %	0.09	3.35	3.25
Cost price, thousand roubles	227 922	235 796	7 874
Return on assets, %	0.66	18.47	17,81
Net profit, thousand roubles	227	6 310	6 083
Asset value, thousand roubles	34 159	34 159	0

Source: compiled by the authors.

Optimizing the financial condition of organizations involved in the production of agricultural machinery in the region will allow achieving a projected increase in profitability of sales at a level of just over 3%, while the increase in costs will be about 3.3% [9]. Thus, the product profitability standard of 3.2% will not only be met, but also slightly exceeded.

Optimizing the financial condition of engineering and dealer organizations involved in the production of agricultural machinery in the region when the international situation changes is the main factor for the development of a group of indicators. This model of using profitability provides advantages for dealers and allows them to adjust prices for manufactured equipment to take into account inflation.

4 Conclusions

Practical recommendations include concluding an agreement with official dealers and increasing the cost of equipment in accordance with the inflation rate. Application of the proposed measures will increase revenue by 4.1%, cost by 1.32% and planned profit.

Overall, revenues are expected to increase by 6.82% and costs by 3.45%. The developed recommendations really help to optimize the financial situation by expanding the dealer network and adjusting the cost of agricultural products. They can be introduced into the activities of agricultural machinery manufacturers.

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