

Analysis of Production and Release of Products and Reserves for their Increase

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Abstract: The article is devoted to the analysis of the main indicators of the activity of the manufacturing enterprise - the production and sale of products. The structure of sales of products by types of products, by sales markets, implementation of the plan for production and sale of products, changes in the balance of unrealized products is analyzed. The structure of sales of products by types of products, by sales markets, implementation of the plan for production and sale of products, changes in the balance of unrealized products is analyzed. Much attention is paid to the analysis of certain types of unrealized products, the reasons for their occurrence. In the process of analyzing the implementation of the plan, special attention is paid to the analysis of rhythmicity, since irregularity generates downtime of equipment, transport, loss of working hours, the need for overtime, worsens all economic indicators. Based on the analysis of output and sales of products, measures have been developed to increase them, in particular: expanding sales markets, improving the quality of products, increasing the rhythms of production and shipment of products, strengthening economic relations with enterprises of the service and distribution network, observance of contractual discipline. The implementation of these measures will lead to the opening of the company's new development prospects, to increase the competitiveness of products, will allow further expansion of production, create a favourable investment climate, will be the key to successful cooperation with Russian and foreign companies.

Keywords: *production, sales of products, sales markets, rhythm, implementation of the plan, unrealized products, factors, competitiveness, product quality, reserves of sales increase.*

The realization process completes the circuit of the enterprise's economic resources, which allows it to fulfil its obligations to the state budget, the bank for loans, workers and employees, suppliers and reimburse production costs. Failure to implement the sales plan causes a slowdown in the turnover of working capital, fines for non-fulfilment of contractual obligations to buyers, delays payments, and worsens the financial position of the enterprise.

Consequently, the volumes of production and sales of products are the main indicators of the activity of the production enterprise, on which their competitiveness and overall effective functioning depend.

Thus, the purpose of the article is to analyze the release and sale of products and determine the reserves for their increase. The object of the study is the limited liability company "United Automobile Group".

To study the factors affecting the sales of "OAG" LLC, we will begin with the analysis of the priority of sales of the model line. Thus, the traditional model for the company is the LADA GRANTA car, whose share in the shipment volume is 94.60%. Consequently, it is suitable to analyze the influence of various factors on the effectiveness of selling products using the example of this model.

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Tab. 1: Structure of sales of cars.

Model	Shipment amount, thousand rubles	Share in the sales structure, %
LADA GRANTA	22 175 883,60	94,60
NISSAN Sentra	1 264 155,84	5,40
Total:	23 440 039,44	100,00

Tab. 2: Analysis of sales priorities by federal districts.

Name of the federal district	Annual sales, thousand rubles	Share in the sales structure, %
Central	4 947 841,50	22,31
Siberian	4 638 073,89	20,91
Privolzhsky	3 986 617,00	17,98
Southern	2 512 136,04	11,34
Uralian	2 347 085,45	10,58
North-Caucasian	2 029 724,50	9,15
Northwestern	1 456 755,62	6,57
Far Eastern	257 650,00	1,16
Total:	22 175 884,00	100

Next, we will analyze the priority of regional markets - ranking in descending order.

Table 2 shows that the priority markets for the organization are the Central, Siberian and Volga federal districts. This is due to the large number of car dealers there.

Tab. 3: Production, sales and residuals plan for the LADA GRANTA.

Balance at beginning of year		Production plan		Realization plan		Balance at the end of the year	
Units	Thousand Roubles	Units	Thousand Roubles	Units	Thousand Roubles	Units	Thousand Roubles
2 422	780 271,52	76 100	24 516 376	75 187	24 222 244	3 335	1 074 403,60

Tab. 4: Factor analysis of the implementation of the plan for the sale of cars of model LADA GRANTA.

Indicators	Plan	Fact	Deviation from plan	
			In thousand rubles	In% to the plan
Sales of products	24 222 244,00	22 175 884,00	-2 046 360,00	-9
Production Output	24 516 376,00	23 526 700,48	-989 675,52	-5
Change in balances of unrealized products	+294 132,00	+1 350 816,48	+1 056 684,48	+4

Tab. 5: Analysis of the types of unrealized products of the LADA GRANTA model.

Types of unrealized products	Plan, thousand rubles	Fact, thousand rubles	Deviation from the plan, thousand rubles
Finished goods in storage	-	263 526,90	+263 526,90
Goods shipped, payment terms of which have not come yet	294 132,00	602 438,78	+308 306,78
Goods shipped but not paid in time by buyers	-	481 951,40	+481 951,40
Commodity storage of buyers	-	2 899,40	+2 899,40
Total unrealized production	294 132,00	1 350 816,48	+1 056 684,48

Next, we will analyze the implementation of the sales plan for the following tasks:

■ **Establishment of the validity of the indicator of the business plan for the sale of products;**

■ **Determination of the degree of implementation of the plan for the volume and range of products sold;**

■ **Calculation of the influence of individual factors on the amount of deviation of the actual volume of sales from the planned one;**

■ **Exploration of reserves of further increase in sales and ways of mobilization, i.e. use of these reserves.**

When verifying the feasibility of the implementation plan, we will determine whether it corresponds to the planned volume of realization of marketable products and to the planned change in the balances of unrealized products during the year.

To assess the degree of implementation of the sales plan, we summarize the data in Table 4 and compare the planned and actual sales in the planned prices.

So, the under fulfillment of the plan for sales of 2,046,360 thousand rubles, or 9%, was due to the under fulfillment of the plan for the production of cars. The increase in the balances of unrealized products is 1,056,684.48 thousand rubles. Greater than expected, increased the degree of under-fulfillment of the implementation plan by 1,056,684.48 thousand rubles, or 4%. The overall impact of the two factors (balance of factors) is:

- 989 675.52 - 1 056 684.48 = - 2 046 360.00 (thousand rubles)

Then we analyze the composition of unrealized products and identify the reserves of further increase in sales.

The composition of unrealized products at the end of the year is characterized by the following data.

The Unjustified nature of the following types of unrealized products: 1) *superplanned balances of finished products in the warehouse* - 263,526.90 thousand rubles; 2) *the remains of goods shipped, not paid in time by buyers* - 481,951.40 thousand rubles. 3) *the remains of goods in safe custody* - 2,899.40 thousand rubles.

The elimination of these types, that is, the reduction of finished goods stocks to the established target value, as well as the sale of goods not paid on time and on the custody of the buyers, is a reserve for increasing the volume of sales in the sphere of circulation. The reserve for the LADA GRANTA model will be:

$$263\,526,90 + 481\,951,40 + 2\,899,40 = 748\,377,70$$

(thousand rubles)

At present time, LLC "OAG" attaches great importance to fulfilling the plan of sales of products (rhythmicity). Rhythmicity is the uniform sale of products in accordance with the schedule in the volume and assortment provided by the

plan. Violation of the plan leads to a decrease in sales volumes. Irregularity generates downtime of equipment, transport, loss of working hours, the need for overtime workers, worsens all economic indicators: the quality of products decreases; The volume of unfinished production and superplanned remains of finished goods in warehouses are increasing, and, consequently, the turnover of capital is slowing down; Deliveries under contracts are not carried out and the enterprise pays penalties for untimely shipment of production; Untimely revenue comes, etc.

To estimate the rhythm of shipment of products, we use the following indicators:

Coefficient of rhythmicity - K_{rhythm} . Its value is determined by summing the actual specific weights of the sales volume of cars for each period, but not more than their planned level;

The coefficient of variation (K_v) is defined as the ratio of the mean-square deviation from the planned task for a day (ten, month, quarter) to the average daily (average decadal, average monthly, average-non-quarterly) planned shipment of products.

Based on the data in Table 6, we calculate the rhythm of the sale of products.

The coefficient of rhythmicity of sales of products was:

$$K_{rht} = 29,0 + 32,0 + 16,0 + 15,0 / 100 = 0,92$$

Tab. 6: *Rhythm of sales by quarter.*

Quarter	Shipment of cars, units.		Implementation of the plan, coefficient	Share of shipment, in the implementation of the plan for rhythm, %
	Plan	Fact		
First	23 095	21 267	0,921	29,0
Second	25 167	24 091	0,957	32,0
Third	12 504	12 231	0,978	16,0
Fourth	14 421	11 246	0,780	15,0
Total	75 187	68 835	0,916	92,0

In this period, the plan for the shipment of products is underfulfilled by 6,352 vehicles.

Let's find the coefficient of variation: ($K_v = 0,35$).

Thus, sales of products by quarter deviate from the schedule by an average of 35%.

The carried out analysis of output and sales of products revealed the following results:

■ **the traditional model for the company is the LADA GRANTA car, whose share in the shipment volume is 94.60%;**

■ **priority markets for LLC "OAG" are the Central, Siberian and Volga federal districts;**

■ **the revealed underfulfillment of the plan for sales of**

products by 2,046,360 thousand rubles, or by 9%, was due to the underfulfillment of the plan for the production of cars;

■ **an increase in the balance of unrealized products is 1,056,684.48 thousand rubles. Greater than expected, increased the degree of underfulfillment of the implementation plan by 1,056,684.48 thousand rubles, or 4%;**

■ **unjustified nature of the following types of unrealized products:** 1) *overplanned balances of finished goods in the warehouse* - 263,526.90 thousand rubles; 2) *the remains of goods shipped, not paid in time by buyers* - 481,951.40 thousand rubles. 3) *the remains of goods in safe custody* - 2,899.40 thousand rubles;

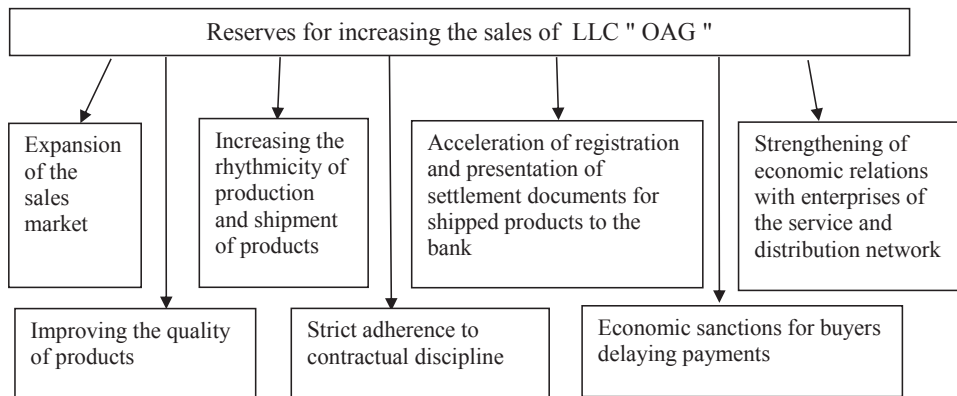


Fig. 1: Proposals for increasing sales and improving economic performance of LLC.

Tab. 7: Economic effect of implementing measures to improve the sale of products.

The current state of sales of products	The result of implementing measures to improve the sale of products
1. The quarterly deviation from the sales schedule by 35% 2. The coefficient of rhythmicity of sales of products $K_{rht} = 0.92$ 3. Increase in balances of unrealized products by 1,056,684.48 thousand rubles. More planned.	1. Achieve 100% of the sales schedule 2. Improving the rhythms of the sale of products by 8% by achieving a planned rate of rhythmicity $K_{rht} = 1.00$ 3. Increase in sales volume due to reduction of balances of unrealized production by 748,377.70 thousand rubles.

■ **the rhythm of sales of products by quarters deviates from the schedule by an average of 35%.**

Thus, there are the following reserves for increasing the sales of products in OOO OAG:

■ **reserve for the increase in the volume of sales of products due to the reduction of balances of unrealized products in the amount of 748,377.70 (thousand rubles),**

■ **extension of sales markets to the Southern, Ural, North-Caucasian, North-Western, Far Eastern regions of the country,**

■ **an increase in the rhythm of shipment of products by 35%.**

The use of identified reserves is possible through the introduction of a number of activities, as shown in Figure 1. A summary of measures to increase sales is given in Table 7.

The implementation of these measures will lead to the opening of the company's new development prospects, to increase the competitiveness of products, will allow further expansion of production, create a favorable investment climate, will be the key to successful cooperation with Russian and foreign companies.

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