

Estimating Indices Analysis in Strategic Analysis of Business Effectiveness

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Abstract—The fixed assets are the actives, which are used in production, services provision or during the works in a form of management needs of the organization optimization. The fixed assets classification includes 10 amortization groups, which should be followed by all organizations, regardless of the forms of property during amortization and depreciation of fixed assets calculation. This document contains the time-frames, which are mentioned for amortization sequence for the aims of income taxation. Thus, fixed asset is a property, which would bring income in the future, the time of useful use of which is more than 12 months, which shouldn't be resold, actively used in the enterprise or is given for rent to another object. The cost of asset in 2019 in accounting is more than 40000 rubles, for tax accounting- more than 100000 rubles.

Keywords—*estimating indices; strategic analysis; the fixed assets; assets of an enterprise; production assets.*

Nowadays most part of enterprises has run-down equipment and mechanisms. The fixed assets condition technical and technological level, quality and diversity of the released products, services, fulfilled works in the organization. Qualitative analysis, held with the help of objective indices, would help to reveal indices defects and create offers concerning the fixed assets movement improvement, which would lead to these objects accounting, amortization charges optimization and finally to the quality of the released product improvement and finance results increase of the economic subject.

Characterizing production facilities we came to the conclusion that they take direct part in the process of production (engineering tools, equipment) or provide necessary conditions creation for production process (productive buildings).

Non-production funds include the needs of housing and communal services, enterprise culture and education (canteens, schools). The rationality and effectiveness of the structure of these funds should be observed. There should be sufficient amount of production capital funds in order to provide the process of production. At the same time it is

necessary to have the reserve in case of coming out of the process, but the surplus shouldn't be great.

The developed sphere of non-productive funds makes the activity of workers easier and provides wealth for the staff and productivity increase.

This forms funds characteristic according to the degree of participation directly in production process:

- active elements, which include the cars, equipment and which influence directly the process of production, quality and quantity of products.
- passive elements, which include buildings and establishments, which create conditions for production process.

If the organization independently made fixed assets, costs are formed in accordance with these assets production.

Free assets (gift contract assets) acknowledge the initial cost the current market cost at the date of acceptance and the following things can be used:

- prices for similar fixed assets;
- information about the level of prices;
- experts' report.

During inventory not considered objects of fixed assets can be revealed, which should be accepted according to current market price.

During re-estimation of the asset, in accordance with modern prices and technique, is called restoring. In time course there is the initial price deflection, for its elimination re-estimation is fulfilled.

Business corporation should re-estimate the groups of objects according to current restoring price no more than once a year.

The initial results for re-estimation are the following:

- initial price or restoring price;

– sum on the date of the calculated amortization for the whole period of the object;

– documents that prove these objects re-estimation.

Preparatory work for re-estimation is in order or regulatory document formation, the list of objects for re-estimation.

The order should reflect the following:

- objects of re-estimation;
- the way of re-estimation;
- methodology of reflection on accounts.

After re-estimation restoring price is accepted as the initial one.

The result of re-estimation can be the additional estimation or price reduction of the object.

Let's consider joint-stock company "Progress" in the center of Kuban. The history of activity renewal started in 1932, when on isolated farmstead Burakovskiy, in Krasnodar region kolkhoz was formed. Society changed, but the organization preserved its intellectual, technical and staff base. The activity of the organization is in agricultural products production. It grows winter wheat, barley, corn, sunflower and sugar beet. During recent years the enterprise has broadened own production spectrum by means of seed-growing of sunflower and corn hybrids. Each year, regardless of modern economic changes and other disasters, "Progress" gets its income. Every year kolkhoz realizes 10-15000 seeds, 800-1000 tons of sunflower and a lot of other products: sugar, flour, oil and etc.. On the territory of the enterprise there is a township - isolated farmstead Burakovskiy, which is 10 km far from the district center (Korenovsk), 70 km from regional one (Krasnodar). The enterprise became highly industrial. The staff moves forward, ready to realize all orders of every party congress. As a result of 2014 joint-stock company "Progress" is rewarded with "Gold Mercury" prize by "Monde Sans Frontiere" association (France). In 2006 the enterprise was included into the list of the best enterprises of EES association "Europa" (Germany) and was rewarded by the title "The leader of agro-industrial complex" and "Gold Palm" prize of "Partnership for the benefit of progress" program. In recent years "Progress" takes the leading places among the most effective agricultural enterprises of the region.

For the activity realization of the subject each organization should have resources. During the activity the organization uses the groups of resources: natural, material, finance, intellectual, including labor means. As the main parts of the group of organization industrial resources are the subject of labor, means of labor and workers. The indices of provision level with the main resources of "Progress" are presented in table 1.

Having estimated the results of table 1 we came to the following conclusion. There is stable decrease in land area item, by 2018 it was 4537 ha, which is 3,3% less than in 2016. This change is conditioned by the sale of the part of agricultural lands, the index of which decreased by 3,3% and was 4458 ha. In 2018 average annual number of workers

increased by 3,2% in comparison with 2016, but decreased by 1,5% in comparison with 2017 and was 128 people. This change led to outlays decrease on the main production. Average annual cost of the main productive means was constantly increasing. In 2018 it was 220143 thousand of rubles, which is 24,8% higher in comparison with 2016. This change is connected with new cars and equipment provision.

TABLE I. RESOURCES AND EXPENDITURES OF JOINT-STOCK COMPANY "PROGRESS"

Index	2016	2017	2018	2018 in % by	
				2016	2017
General ground area, ha	4691	4643	4537	96,7	97,7
Area of agricultural lands, ha	4610	4562	4458	96,7	97,7
Effective area, ha	4552	4505	4417	97,0	98,0
Average annual number of workers, people	124	130	128	103,2	98,5
Including those, who take part in rural economy	115	122	121	105,2	99,2
Average annual cost of the main productive means, thous. rubles. - total	176364	195469	220143	124,8	112,6
Outlays on the main production, thous. rubles	262201	312176	276293	105,4	88,5
including: - material costs	193475	234515	197988	102,3	84,4
Power capacities– total	11258	11196	11038	98,0	98,6
Productivity	2344,8	1746	1790,1	76,3	102,5
Efficiency of capital	1,7	1,2	1,04	63,0	89,7
Material return	1,5	1,0	1,2	77,3	1,2

Let's consider the main results of the organization activity, which are presented in table 2.

TABLE II. ACTIVITY RESULTS OF JOINT-STOCK COMPANY "PROGRESS", THOUSAND OF RUBLES

Index	2016	2017	2018	2018 in % by	
				2016	2017
Earnings	290750	226979	229137	78,8	101,4
Income from sales	84276	43886	33634	39,9	76,6
Other income	12628	19660	6786	53,7	34,5
Other expenditures	13747	8849	16520	120,2	186,7
Income before taxation	76865	53993	21115	27,5	39,1
Clear profit	73342	53954	21030	28,7	39,6
Sales profitability, %	29	19,3	14,7	50,7	76,2
Sales profitability according to clear profit, %	25,2	23,8	9,2	36,5	38,7

Returns from sales in 2018 in comparison with 2016 decreased by 21,2% and were 229137 thousand of rubles and in comparison with 2017 this index increased by 1,4% and was 2158 thousand of rubles. Prime cost increase led to income decrease. Income in 2018 was 33634 thousand of rubles, which is twice less than in 2016. Other income in 2018 in comparison with 2016 increased twice and in comparison with 2017 decreased by 65,5%, which led to financial result decrease. Other costs within the studied period decreased for 4898 thousand rubles, in 2018 they increased for 7671 thousand of rubles and were 16520 thousand of rubles. Income before taxation within the studied period also decreased for 55750 thousand rubles.

Sales profitability within 2016-2018 decreased by 14,3% and was 14,7%, this change is connected with considerable decrease of earnings and income. Sales profitability according to clear income also had a low level, which shows prime cost increase and realization decrease.

Figure 1 shows financial results of “Progress” activity.

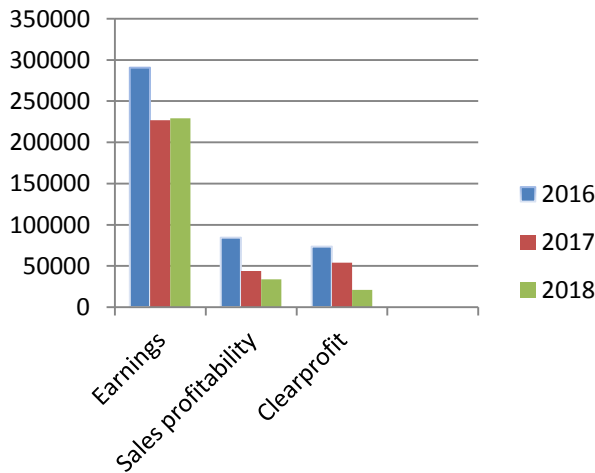


Fig. 1. Finance results of “Progress” activity within 2016–2018

The aim of joint-stock company “Progress” was not only in maximum income getting, but in active development in terms of market in order to be competitive.

The results interpretation, and prediction formation on their base is an integral part of successful work of organization. In order to predict we use one of the statistic functions of Excel – PREDICT. It calculates the future index according to the set values. The program uses linear regression. Let’s calculate and predict earnings (S) according to the formula.

Using Excel we involved the results of 2013-2018 according to “Earnings” index from the existing forms of reports. In 2013 the index was 190001 thousand of rubles, in 2014-180947 thousand of rubles, in 2016 - 290750 thousand of rubles, in 2017 - 226979 thousand of rubles, in 2018 229137 thousand of rubles. For the empty cells of earnings calculation in 2018 and 2019 we chose statistical formula PREDICT, which mechanically calculated the results, set during previous years.

Thus, PREDICT function helped to reveal the sums of the predicted income of “Progress” in 2018-2019. There is a positive dynamics of the factor increase.

Using Excel we introduced the results of 2013-2018 according to “Fixed assets” index. For the empty cells of earnings calculation in 2018 and 2019 we chose statistical formula PREDICT, which mechanically calculated the results, set during previous years.

Thus, PREDICT function helped to reveal the sums of the predicted income of “Progress” in 2018-2019. There is a positive dynamics of the factor increase.

On the basis of the fulfilled predictions of earnings and fixed assets we defined the predicted values of capital efficiency:

- predicted value CE in 2018

$$CE = \frac{S_{2018}}{FA_{2018}} = \frac{260854}{226679,6} = 1,151$$

- predicted value of CE in 2019

$$CE = \frac{S_{2019}}{FA_{2019}} = \frac{273284,4}{239517,2} = 1,141$$

Thus, taking into account the predicted results of capital efficiency in 2018 was 1,151, in 2019 0,01 less- 1,141.

For the factors influence calculation on the volume of production we used the method of absolute differences. The factors connection corresponds with multiplicative model of earnings:

For multiplicative model of earnings $S = CEa * FA * da$ let’s calculate the influence on the volume of production:

- fixed assets cost

$$\Delta S_{fa} = \Delta FA * CEa * da = 24674 * 1,242 * 0,942 = 28653;$$

- the parts of active fixed assets

$$\Delta S_{da} = \Delta da * FA * CEa = 0,007 * 220143 * 1,242 = 1913;$$

- capital of efficiency of active fixed assets

$$\Delta S_{cea} = \Delta CEa * FA * da = -0,137 * 220143 * 0,942 = -28410.$$

Thus, earnings from sales in 2018 increased for 2158 thousand rubles. Considerable part among fixed assets form active fixed assets, in 2018 this index was 94,2%. Nevertheless, capital efficiency of fixed assets decreased by 0,13% and was 1,1 %.

The price of fixed assets 28653 rubles had the greatest influence on productivity volume. The restrictive factor of earnings is a negative value of capital efficiency of active fixed assets-28410 rubles.

Thus, the main problem of joint-stock company “Progress” is a low level of the fixed assets active part capital efficiency. The complex of events, connected with active part of fixed assets development is the offer to change agricultural

technique for new one (producer-Belarus). The research work contains analysis with the help of Microsort Exel program, which helped to predict earnings in 2018-2019, the cost of the fixed assets in 2018-2019. Taking this into account we predicted capital efficiency, which in 2018 was 1,151, in 2019 - 1,141.

In terms of the existing vehicle reserve depot the enterprise wouldn't be able to provide considerable increase of technical readiness.

Thus, joint-stock company "Progress" has a wide spectrum of abilities and offers concerning the direction for the effectiveness of fixed assets use.

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