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Veröffentlichungsversion / Published Version

Zeitschriftenartikel / journal article

Empfohlene Zitierung / Suggested Citation:

Mullinova, S. (2015). Economic evaluation of the efficiency of use of circulating assets. *Konzept (Kirov): Scientific and Methodological e-magazine*. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-440740>

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Economic evaluation of the efficiency of use of circulating assets

Abstract. *The article reviewed the status of inventory in the organization. The results of an economic study of current assets and their effect on the financial condition of the organization. The analysis of indicators of working capital and their efficiency. The recommendations to speed up inventory turnover may find practical application in the accounting and analytical activity of the agricultural organizations.*

Key words: *assets, stock structure, revenue, profitability, accumulation factor, inventory turnover, efficient use of working capital.*

Nowadays organizations need to control and improve their work. The questions connected with condition of current assets take the special place in system of accounting. It results from the fact that they form technological base and define the production purpose of organization.

General partnership “‘Maryanskoye’ and the company” is diversified and economically stable agricultural organization in Krasnoarmeisky district of the Krasnodar Krai. The primary activity is cultivation of grain crops, which is based on use of modern equipment, new technologies and work of highly qualified personnel.

The results of production activity of general partnership “‘Maryanskoye’ and the company” are presented in profit got by the organization in 2013 from product sales. In 2013 it made 43536 thousand rubles that is 6,3% more, than in 2011. Along with profit growth profitability of sales decreased from 17,8% in 2011 to 13,4% in 2013. It, in turn, negatively characterizes a financial condition of the organization [1].

Current assets provide a continuity of production and products sales of the organization. Revolving business assets enter production in the natural form and in the course of production are entirely consumed, transferring the cost to the created product. Funds of the address are connected with service of process of goods circulation, which do not participate in formation of cost, they are its carriers. One of conditions of organization continuity of activity is continuous renewal of its material basis [2].

Further, we will analyze change of structure and contents of current assets, using data of the second section of asset of balance of the organization.

Table 1 shows that the total cost of organization property increased in the studied period by 155903 thousand rubles (58,2%). It occurred because of increase in value of non-current assets on 19941 thousand rubles (13,9%).

In 2013 the cost of mobile property made 260685 thousand rubles that is twice higher than in 2011 (135962 thousand rubles).

Specific weight of current assets in the assets cost of the organization increased in 15,0 percentage points and made 61,5% in 2013.

Growth of material assets is caused by increase of material-production stocks, receivables and financial investments. The greatest growth of current assets is provided by receivables increase, which sum increased on 137 753 thousand rubles (in 17,7 times). In 2013 its specific weight made about 34,4% of all property and increased in comparison with 2011 by 31,3 percentage points [3].

In 2013 the sum of the organization funds decreased on 1522 thousand rubles (24,5% in comparison with 2011) that has an adverse effect on solvency of the organization. However the specific weight of money practically did not change and in 2013 made 1,1%.

Table 1

**Structure and contents of property
of the general partnership “‘Maryanskoye’ and the company”
in Krasnoarmeisky district of the Krasnodar Krai**

| <i>Indicator</i> | <i>2011</i> | | <i>2012</i> | | <i>2013</i> | | <i>Deviation (+, –) 2013 in comparison with 2011.</i> | |
|--|----------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|---|------------------------------|
| | <i>Thousand rubles</i> | <i>In % to a result</i> | <i>Thousand rubles</i> | <i>In % to a result</i> | <i>Thousand rubles</i> | <i>In % to a result</i> | <i>Thousand rubles</i> | <i>Percentag e point</i> |
| All property, including non-current assets | 267 954 143 231 | 100,0 53,5 | 282 460 154 397 | 100,0 54,7 | 423 857 163172 | 100,0 38,5 | 155 903 19 941 | – – 15,0 |
| Current assets | 124 723 | 46,5 | 128 063 | 45,3 | 260 685 | 61,5 | 135 962 | 15,0 |
| Stocks | 102 516 | 38,3 | 70 174 | 24,8 | 104 121 | 24,6 | 1605 | – 13,7 |
| including: | | | | | | | | |
| – stocks and materials | 17 392 | 6,5 | 10 195 | 3,6 | 29 237 | 6,9 | 11 845 | 0,4 |
| – receivables | 8237 | 3,1 | 45 715 | 16,2 | 145 990 | 34,4 | 137 753 | 31,3 |
| – financial investments | – | – | 650 | 0,2 | 650 | 0,2 | 650 | 0,2 |
| – money | 6214 | 2,3 | 10 096 | 3,6 | 4692 | 1,1 | – 1522 | – 1,2 |
| – the other reverse assets | 7756 | 2,8 | 1158 | 0,4 | 5092 | 1,1 | – 2664 | – 1,7 |
| – The VAT on acquired values | – | – | 270 | 0,1 | 203 | 0,1 | 203 | 0,1 |

Financial investments increased in 650 thousand rubles, and their share in the assets cost made 0,2%.

During the analysis of indicators of structural dynamics it was established that in 2013, 38,5% make non-current assets and 61,5% – current assets. Thus as a part of current assets the greatest specific weight is the share of receivables (34,4%).

In general in 2013, the structure of economic funds improved and the happened changes can be estimated positively, thus it is necessary to pay attention to the low specific weight of money.

After the general assessment of a property condition of the organization, it is necessary to give detailed description if structure of material-production means of general partnership “‘Maryanskoye’ and the company”

According to table 2, stocks of inventory items in general increased in 1605 thousand rubles (1,6%). The main gain of stocks occurred on raw materials and stocks, which sum increased in 11845 thousand rubles (68,2%). Expenses for work in progress increased by 1475 thousand rubles (2,2%). Reduction of animals on cultivation and sagination decreased in 10458 thousand rubles (78,9%).

**Dynamics and structure of stocks
of the general partnership “Maryanskoye’ and the company”
in Krasnoarmeisky district of the Krasnodar Krai**

| <i>Material current assets</i> | 2011 | | 2012 | | 2013 | <i>Deviation (+, –) 2013 in comparison with 2011.</i> | 2011 | |
|---|------------------------|-------------------------|------------------------|-------------------------|------------------------|---|------------------------|-------------------------|
| | <i>Thousand rubles</i> | <i>In % to a result</i> | <i>Thousand rubles</i> | <i>In % to a result</i> | <i>Thousand rubles</i> | | <i>Thousand rubles</i> | <i>In % to a result</i> |
| Stocks, sum total | 102516 | 100,0 | 70174 | 100,0 | 104121 | 100,0 | 1605 | – |
| Including: | | | | | | | | |
| – stocks and materials | 17392 | 17,00 | 10195 | 14,5 | 29237 | 28,1 | 11845 | 11,1 |
| – expenses for work in progress | 67441 | 65,8 | 54146 | 77,2 | 68916 | 66,2 | 1475 | 0,4 |
| – finished goods for resale | 4415 | 4,3 | 2153 | 3,1 | 3118 | 3,0 | – 1297 | – 1,3 |
| – animals on cultivation and sagination | 13268 | 12,9 | 3638 | 5,1 | 2810 | 2,6 | – 10458 | – 10,3 |
| – expenses of future periods | – | – | 42 | 0,1 | 40 | 0,1 | 40 | – 0,1 |

The analysis of structural dynamics shows that the greatest specific weight as a part of stocks is expenses in work in progress, which share increased from 65,8% in 2011 to 0,4%. The share of raw materials and stocks increased in 11,1%. In 2013, specific weight of animals on cultivation and sagination made 2,6% that is lower than in 2011 on 10,3% [4]. The increase in material-production stocks testifies to growth of production capacity of the organization. It is important to note that the increase of stocks remnants can both be the result of price increase and point to decrease in consumer demand, poor quality of production or spasmodic release.

For assessment of stocks structure, it is necessary to use coefficient of accumulation (C_a) [5]. It is determined by the following formula:

$$C_a = (PS + WP + EF) / (FG + G),$$

where PS – the cost of production stocks; NP – the cost of work in progress; RB – expenses of future periods; FG – the cost of finished goods; T – the cost of goods.

The coefficient of accumulation characterizes the level of mobility of stocks of product-material items, and at optimum option it has to be less than 1.

In 2013, in general partnership “Maryanskoye’ and the company” this coefficient was more than 31 that testifies to adverse structure of the organization stocks, existence of excessive and unnecessary production stocks, unjustified growth of the remnants of a work in progress.

Therefore, the organization has the policy of conscious accumulation of raw stocks in connection with interruptions in supply and inflationary processes, and also for the further growth of production volume. Efficiency of current assets use is affected by a set of factors, frequently acting in opposite directions. On the width of influence and degree of controllability, factors can be divided in three groups: general-economic factors, organizational factors and factors connected with technical progress.

Taking into account the above-mentioned, it is possible to carry out an assessment of efficiency of current assets use in a general partnership “Maryanskoye’ and the company” in Krasnoarmeisky district of the Krasnodar Krai [6].

Table 3

**Efficiency of current assets use
of the general partnership “Maryanskoye’ and the company”
in Krasnoarmeisky district of the Krasnodar Krai**

| <i>Indicator</i> | 2011 | 2012 | 2013 | 2013 in % (times) | |
|---|-------------|-------------|-------------|--------------------------|--------------|
| | | | | 2011. | 2012. |
| Revenue, thousand rubles | 229 491 | 278 950 | 325 718 | 141,9 | 116,8 |
| Profit on sales, thousand rubles | 40 962 | 51 823 | 43 536 | 106,3 | 84,0 |
| Net profit, thousand rubles | 40 913 | 53 599 | 36 478 | 89,2 | 68,1 |
| Average annual sum of current assets, thousand rubles | 113 198 | 126 393 | 194 374 | 171,7 | 153,8 |
| Current assets for 1000 rub, rubles: | | | | | |
| – revenues | 493,3 | 453,1 | 596,8 | 121,0 | 131,7 |
| – profits on sales | 2763,5 | 2438,9 | 4464,7 | 161,6 | 183,1 |
| – net profit | 2766,8 | 2358,1 | 5328,5 | 192,6 | in 2,3 times |

The analysis of Table 3 showed that in 2013 the proceeds from sales counting on 1000 rub of current assets made 5968 rub that is 21,0% more, than in 2011 and 31,7% more than in 2012. The realization profit on 1000 rub of current assets in 2013 increased by 61,6% in comparison with 2011. It is connected with increase of current assets of the organization at simultaneous increase financial results of the organization activity and testifies to their effective use.

Change of the analyzed indicators is caused by reduction of financial results of the organization activity in general that negatively characterizes efficiency of material resources use.

According to Table 4, in 2011 – 2013 reduction of net profit decreased in 4435 thousand rubles (10,8%). This decrease and simultaneous growth of the sum of the average annual current assets remnants led to reduction of level of their profitability [7].

Profitability of current assets of the organization in 2013 made 18,8% that on 17,3 percentage points is less than in 2011. Level of raw materials and stocks profitability reduced on 219,4 percentage points in relation to 2011.

All these facts testifies to inefficient use of current assets of the organization and has negative impact on financial condition of the organization.

**Profitability of resources
of the general partnership “‘Maryanskoye’ and the company”
in Krasnoarmeisky district of the Krasnodar Krai**

| <i>Indicator</i> | <i>2011</i> | <i>2012</i> | <i>2013</i> | <i>Deviation (+, –) 2013 in comparison with</i> | |
|---|-------------|-------------|-------------|---|-------------|
| | | | | <i>2011</i> | <i>2012</i> |
| Net profit, thousand rubles | 40 913 | 53 599 | 36 478 | – 4435 | – 17121 |
| Average annual size of, thousand rubles | | | | | |
| – current assets | 113 198 | 126 393 | 194 374 | 81 176 | 67 981 |
| – stocks | 78 916 | 86 345 | 87 148 | 8232 | 803 |
| – stocks and materials | 10 116 | 13 794 | 19 716 | 9600 | 5922 |
| Profitability, %: | | | | | |
| – current assets | 36,1 | 42,4 | 18,8 | – 17,3 | – 23,6 |
| – stocks | 51,8 | 62,1 | 41,9 | – 9,9 | – 20,2 |
| – stocks and materials | 404,4 | 388,6 | 185,0 | – 219,4 | – 203,6 |

The purpose of economic activity of any organization is the maximum acceleration of current assets turnover. Factors of acceleration of current assets turnover are the following:

- optimization of production stocks;
- effective use of material, labor and monetary resources;
- reduction of duration of production cycle;
- reduction of terms of current assets stay in the remnants of finished goods and in calculations.

As a result of acceleration, economic effect of turnover is expressed in relative release of means from a turn, and also in increase in the sum of profit.

The sum of the released funds from a turn (due to acceleration of turnover or call of additional funds in a turn at turnover delay) is defined by multiplication of actual one-day turnover of realization and change of duration of one turn in days:

$$\Delta TF = (T_{ca1} - T_{ca0}) \times P_{r1} / D$$

where T_{ca1} ; T_{ca0} – respectively duration of one turn of current assets for the reporting and previous periods, in days;

P_{r1} – proceeds from sales of production for the reporting period, in rubles;

D – number of days in the reporting period [8].

Let us calculate reserve of acceleration of stocks turnover due to growth of proceeds from sales of production in 2013 in comparison with 2012. For this purpose, it is necessary to calculate reserve of growth of proceeds from sales of main types of production at the expense of increase in prices.

Table 5

**Reserve of growth of proceeds
due to sales at the expense of production prices increase
of the general partnership “‘Maryanskoye’ and the company”
in Krasnoarmeisky district of the Krasnodar Krai**

| <i>Production</i> | <i>Volume sales, cental</i> | <i>The price for 1 cental, rub</i> | | <i>Reserve growth of the price, rub</i> | <i>Reserve of growth of revenue, thousand rubles</i> |
|---------------------|-----------------------------|------------------------------------|-------------|---|--|
| | | <i>2012</i> | <i>2013</i> | | |
| Sunflower | 19 616 | 1023,25 | 1579,68 | 556,43 | 10915,0 |
| Corn | 43 127 | 446,8 | 696,11 | 249,31 | 10752,0 |
| Live mass of cattle | 1724 | 2076,13 | 2315,55 | 239,42 | 412,8 |
| Total | x | x | x | x | 22079,8 |

Table 5 makes it possible to draw a conclusion that the reserve of revenue made 22079,8 thousand rubles at the expense of increase in prices on main types of production of plant growing and animal husbandry in 2013 in relation to 2012 [9]

Let us calculate a reserve of acceleration of stocks turnover in general partnership “‘Maryanskoye’ and the company” due to increase of proceeds from sales of main types of agricultural production.

Table 6

**Reserve of acceleration of stocks turnover due to revenue growth from product sales
of the general partnership “‘Maryanskoye’ and the company”
in Krasnoarmeisky district of the Krasnodar Krai**

| <i>Indicator</i> | <i>2013</i> | <i>With a growth of revenue</i> | <i>Change (+, -)</i> |
|---|-------------|---------------------------------|----------------------|
| Revenue, thousand rubles | 325 718 | 347 797,8 | 22 079,8 |
| Average annual stocks cost, thousand rubles | 87 148 | 87 148 | 0 |
| Coefficient of stocks turnover | 3,738 | 3,991 | 0,253 |
| Duration of one turn of stocks, days | 96 | 90 | - 6 |
| Coefficient of stocks fixing | 0,268 | 0,251 | - 0,017 |
| Need for stocks at a speed of turn in 2013, thousand rubles | x | 93 210,0 | x |
| Sum of attraction of financial resources in a turn, thousand rubles | x | 6062 | x |

Growth of proceeds from sales of main types of production on 22079,8 thousand rubles led to reduction of term of stocks turnover for 6 days that gives the chance to the organization to save financial resources in amount of 6062 thousand rubles.

Thus, acceleration of current assets turnover means saving of socially necessary time and release of means from a turn. It allows the organization to manage the smaller sum of means for ensuring release and product sales or at the same volume of current assets to increase the volume of the made production. Inflow of money promotes financing owing increase due to acceleration of current assets turnover [10].

We would like to note that for increase of efficiency of material-production stocks use in general partnership “‘Maryanskoye’ and the company” in Krasnoarmeisky district of the Krasnodar Krai, it is necessary to expand production sales markets, increase orders for production and reduce the term of turnover of raw materials and stocks that will increase efficiency of use of available capacities and get additional profit [11].

References

1. Mullinova, S. A. & Kulish, O. M. (2008) "Development of agro-industrial complex in Kuban", *Collection of articles of the All-Russian scientific and methodical conference "Development of the Enterprises, Branches, Regions of Russia"*, Penza, Volga House of knowledge, pp. 78-80.
2. Belova, N. G. (Ed.) & Horuzhy, L. I. (Ed.) (2010) *Accounting in agriculture: tutorial*, Moscow, Eksmo, 608 P.
3. Mullinova, S. A. & Lakiza, M. V. (2010) "Modernization of agro-industrial complex: problems and prospects", Scientific works of the PIP Mogilyov branch "Right. Policy. Economy", No. 10 (part 2), Mogilev: MF ChUO PIP, pp. 11-15.
4. Mullinova, S. A. & Smirnova, M. A. (2009) "Development of agrarian and industrial complex as one of factors of strengthening of food supply of the population", *Materials III of the All-Russian scientific and practical conference "Specialists of Agrarian and Industrial Complex of New Generation"*, Saratov, Science, pp. 103-107.
5. Gubina, O. V. (2013) *Analysis and diagnostics of financial and economic activity of the enterprise: practical work: tutorial*, 2nd edition, revised and added, Moscow, IDES FORUM: Research Center INFRA-M, 192 P.
6. Mullinova, S. A. & Chistova, A. E. (2009) "Assessment of use of current assets at the enterprise (on the example of an educational pilot farm "Kuban")", *Materials III of the All-Russian scientific and practical internet-conference "Problems of Functioning and Development of Territorial Social and Economic Systems"*: 2 parts. Part II, Ufa, ISEI UNTs Russian Academy of Sciences, pp. 328-332.
7. Ibid.
8. Lysenko, D. V. (2013) *Complex economic analysis of economic activity: tutorial for higher educational institutions*, Moscow, INFRA-M, 320 P.
9. Mullinova, S. A. & Kulish, O. M. (2008) "Development of agro-industrial complex in Kuban", *Collection of articles of the All-Russian scientific and methodical conference "Development of the Enterprises, Branches, Regions of Russia"*, Penza, Volga House of knowledge, pp. 78-80.
10. Gubina, O. V. (2013) *Analysis and diagnostics of financial and economic activity of the enterprise: practical work: tutorial*, 2nd edition, revised and added, Moscow, IDES FORUM: Research Center INFRA-M, 192 P.
11. Mullinova, S. A. & Kulish, O. M. (2008) "Development of agro-industrial complex in Kuban", *Collection of articles of the All-Russian scientific and methodical conference "Development of the Enterprises, Branches, Regions of Russia"*, Penza, Volga House of knowledge, pp. 78-80.