Assessment of the effectiveness of the management of agricultural organizations in management accounting

Оценка эффективности управления деятельности сельскохозяйственных организаций в управленческом учете

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Abstract

The dynamic development of the agrarian sector of the Russian economy in recent years makes specific demands on agricultural organizations that require a quick response and decision-making based on strategic analytical approaches. Agricultural organizations can achieve the goals previously set during business planning, using reliable information support, tools for analytical actions and competent management decisions. Any managerial decision made in agriculture should be based on timely information analyzed, taking into account cost-effectiveness, practicality, profitability and efficiency. However, it is necessary to evaluate this business in the long term, taking into account the effectiveness of the management of the agricultural organization, for the development of the agricultural organization. In management accounting of agricultural production, the problem of a comprehensive assessment of the effectiveness of the management of an

Онабривание

Динамичное развитие аграрного сектора экономики России за последние годы, предъявляет специфические требования к сельскохозяйственным организациям, требующих быстрого реагирования и принятия решений на базе стратегических аналитических подходов. С помощью надежного информационного обеспечения, инструментария для аналитических действий и грамотного принятия управленческих решений, сельскохозяйственные организации могут достичь ранее поставленные при планировании бизнеса цели. Любое принятое управленческое решение в сельском хозяйстве должно базироваться на своевременно проанализированной информации с учетом экономичности, практичности, доходности и эффективности. Вместе с тем для развития сельскохозяйственной организации необходимо оценить этот бизнес в
organization (business) is not given attention, and the importance of evaluating a business is also underestimated. The subject of the study is the improvement of management accounting in terms of a comprehensive assessment of the effectiveness of the management of agricultural organizations, based on available accounting documents for external and internal users. The main objective was determined in accordance with the stated goal: to develop recommendations for improving the methodology of management accounting, to assess the effectiveness of management of agricultural organizations. Performance management is an important financial and economic indicator of agricultural production. In this paper, various aspects of management accounting and analysis of the effectiveness of the management of agricultural production are analyzed. It is concluded that the proposed activities will be understood not only by internal users, but also external ones with the help of the developed methodology and management decisions on public documents.

Keywords: assessment, management accounting, performance.

Introduction

Under the current situation in Russia, there is a need to give an objective assessment of the activities of domestic agricultural organizations and find ways to improve the management of agricultural production.

Many scientists are involved in questions of evaluating the management effectiveness of organizations and enterprises (Aganbegyan, Mikulsky, Shatalin, 1993; Bogatin, Shvandar, 2000; Lvov, 2003; Gilyarovskaya, 2008; Ilyin, Stankevich, Loban, 2005; Lyubushin, 2010; Trukhachev, Kriulina, Tarasenko, 2008; Shafronov, 2015). Some authors also focus on performance issues in management accounting and analysis (Gilyarovskaya, 2008; Savitskaya, 2007; Sheremet, 2009). An integrated approach to assessing the effectiveness of management in management accounting received little attention, respectively, this area requires more in-depth research.

The interaction of agricultural entities is based on modern market relations and the state agrarian policy (Molchan, Frantsisko, Ternavshchenko, Ostaev, Tinyakova and Markovina, 2020).

The regulatory mechanism of state regulation is implemented through a system of regulations that create the institutional environment for the implementation of the activities of agricultural organizations (Frantsisko, Ternavshchenko,
Molchan, Ostaev, Ovcharenko and Balashova, 2020).

The problems of organizing effective management accounting of agricultural production through the widespread use of economic methods, both production management and accounting and management methods and the development of their information functions, are very relevant and necessary (Kontsevoy, Ermakov, Rylova, Leoshko and Safonova, 2020).

One of the problems of managerial accounting in Russia is the assessment of the effectiveness of the management of agricultural organizations through the selection of a method for its assessment. It should be noted that the theoretical and practical significance and methods of assessing the effectiveness of agricultural management in management accounting are not sufficiently developed by leading scientists in the field of economics. At the same time, there is no single methodology for assessing the effectiveness of agricultural management in scientific journals.

Methodology

In our opinion, an “assessment of the effectiveness of management of activities in management accounting” should meet the following criteria:

- objectivity;
- accuracy;
- accounting in the calculation of agricultural indicators (productivity, milk yield, etc.);
- assessment of both the production and financial activities of the agricultural organization;
- comparability of indicators, the availability of source information (reporting forms that are in the public domain and are not a trade secret);
- ease of calculation of estimated indicators (Ostaev, 2015; Ostaev, Klychova, Nekrasova, 2018).

The current methods were considered as a result of the studies, taking into account the above criteria in table 1 (Aganbegyan, Mikulsky, Shatalin, 1993; Bogatin, Shvandar, 2000; Lvov, 2003; Gilyarovskaya, 2008; Ilyin, Stankevich, Loban, 2005; Lyubushin, 2010; Petrakov, 2012; Savitskaya, 2007; Trukhachev, Kriulina, Tarasenko, 2008; Shafronov, 2015; Trukhachev, Kriulina, Tarasenko, 2008). Deficiencies of existing methods for assessing the effectiveness of management of activities, as applied to agricultural organizations, are identified. The disadvantages of the methods considered by us are also presented in table 1.

Table 1. The disadvantages of existing methods for assessing the effectiveness of management of agricultural organizations.

| No | Methodology and its essence | The disadvantages of the methods |
|----|-----------------------------|---------------------------------|
| 1  | “... The method of increasing the total resource by 1% growth in sales of products” (Aganbegyan, Mikulsky, Shatalin, 1993). | Indicators specific to agriculture are not taken into account. These methods can be the basis for calculating the efficiency indicator, but they do not provide a specific formula for assessing an agricultural enterprise. |
| 2  | The method of scoring (Bogatin, Shvandar, 2000; Lvov, 2003). |                                            |
| 3  | Arithmetic mean weighted; (Aganbegyan, Mikulsky, Shatalin, 1993, Ilyin, Stankevich, Loban, 2005) |                                            |
| 4  | Sum method; (Gilyarovskaya, 2008; Petrakov, 2012) |                                            |
| 5  | Method of sum of places; (Lvov, 2003; Shereemet, 2009). “Distance method” for rating assessment of objects of analysis; (Ilyin, Stankevich, Loban, 2005; Savitskaya, 2007) |                                            |
| 6  | A method for determining the share of the influence of intensification on the increment of production, taken as 100%; (Aganbegyan, Mikulsky, Shatalin, 1993; Lyubushin, 2010) |                                            |
| 7  | The method of the sum of relative savings in production and financial resources (Lyubushin, 2010) |                                            |
No. Methodology and its essence

Integral performance indicator. This is an indicator of return on assets (Shereen, 2009).

\[
P/B = \frac{P}{B} = \frac{P}{B} = \frac{1}{B} = \frac{1 - \left(\frac{F}{N} + \frac{M}{N}ight)}{\frac{F}{N}}
\]

U / N - the cost of production, reflecting the complexity in cost form;

M / N - material consumption of products;

A / N - depreciation capacity of products;

F / N - capital intensity of production for fixed assets (non-current assets);

E / N - turnover of current assets.

The disadvantages of the methods

Return on assets does not cover all aspects of an enterprise.

In this indicator, the characteristic of the financial condition of the enterprise, i.e. there are no indicators of financial stability, solvency and liquidity.

Indicators specific to agriculture are not taken into account.

Indicators specific to agriculture are not taken into account.

This ratio is valid when calculating self-supporting efficiency, since the cost of production for the producer is the result of production, and the costs are the cost of the product, so an increase in the difference between them means an increase in income.

When calculating national economic efficiency, the result is consumer value, and costs are labor used in production. In this case, labor is reflected in value terms of production. The use value and the value of the goods are qualitatively different, therefore it is impossible to measure them.

The result of increasing the economic efficiency of activities taking into account the difference between results and costs (Trukhachev, Kriulina, Tarasenko, 2008).

The method of complex assessment of the organization.

(Savitskaya, 2007)

\[
A = N \times P \times \frac{1}{Z}
\]

where, A - an indicator of a comprehensive assessment of the organization;

N - the volume of production in physical terms;

P - the value of the beneficial effect of a unit of production;

Z - the cost of production and consumption per unit of output.

Accounting for costs and results of operations in the current year compared to the previous period (Trukhachev, Kriulina, Tarasenko, 2008).

The increase in the effect \( \Delta OP = \Delta E_{PE}p + \Delta E_{PE}q + \Delta E_{PE}r + \Delta E_{PE}i + \Delta E_{PE}l + \Delta E_{PE}f \)

where \( \Delta E_{PE}p \) - the change in output in the stock-assortment expression;

\( \Delta E_{PE}q \) - change in product quality;

\( \Delta E_{PE}r \) - change in the use of labor resources;

\( \Delta E_{PE}i \) - change in the use of means of labor;

\( \Delta E_{PE}f \) - change in production costs.

The calculation of the economic efficiency of the organization (Shafronov, 2015).

\[
EP = \frac{OP}{CHP}
\]

where \( EP \) - the economic efficiency of the organization;

\( OP \) - the result of the activity (output);

\( CHP \) - net product.
No | Methodology and its essence | The disadvantages of the methods |
---|-----------------------------|---------------------------------|
264 | \[ K - \text{the coefficient of consumer properties of products;} \]
264 | \[ ZR - \text{the cost of resources involved in creating the result of the activity;} \]
264 | \[ \text{ER} = \frac{\text{OP}}{ZR} \times \left( \frac{K_1}{S_s + F_0 + OS} \right) \]
264 | where OR - the volume of sales;
264 | \[ K_1 - \text{inflation rate;} \]
264 | \[ S_s - \text{the cost of production;} \]
264 | \[ F_0 - \text{the value of fixed assets;} \]
264 | \[ OS - \text{current assets} \]

Assessment of the economic efficiency of the organization (Bogatín, Shvandar, 2000):

14 | Revenue \[ E = \text{Sopl} - \text{Syneo}b - \text{Sob} \]
14 | where, \( E \) - a comprehensive indicator of assessing the economic efficiency of the organization;
14 | \( \text{Sopl} \) - expenditure on labor;
14 | \( \text{Syneo}b \) - average annual balances of non-current assets;
14 | \( \text{Sob} \) - the average annual balances of current assets.

15 | Integrated Performance Indicator (Ein) (Lyubushin, 2010).
15 | \[ E_{In} = \sqrt{E \times E_{Trud} \times E_{Fin}} \]

Comprehensive assessment of effectiveness through growth rates (Lvov, 2003; Savitskayn, 2007):

16 | \( T_{max} = \sqrt{T_{pr} \times T_{os} \times T_{fo} \times T_{so} \times T_{treat}} \)
16 | where \( T_{pr} \) - the growth rate of labor productivity;
16 | \( T_{os} \) - growth rate of working capital turnover;
16 | \( T_{fo} \) - capital productivity growth rate;
16 | \( T_{so} \) - growth rate (decrease) in cost-effectiveness;
16 | \( T_{treat} \) - the rate of increase (decrease) in the level of profitability of sales.

Assessment of the effectiveness of enterprises taking into account growth rates. (Trushachev, Kruilina, Tarasenko, 2008):

17 | \( T_{pr} \times T_{os} \times T_{treat} \)
17 | where \( T_{pr} \) - the growth rate of net profit growth rate;
17 | \( T_{treat} \) - the growth rate of the organization’s assets.

The competitiveness of the organization in terms of aggregate factor effectiveness (Lya, Stankovich, Loban, 2005):

18 | (Ef.s.): \( E_{r} = \frac{P_{unk}}{P_{o.t}} \times \frac{P_{t} - A}{M_{r}} \)
18 | where \( P_{unk} \) - conditionally net products for the calendar period;
18 | \( P_{o.t} \) - wage fund of workers and employees;
18 | \( A \) - the accrued amount of depreciation;
18 | \( M_{r} \) - cost of materials and services acquired on the side.

Indicators specific to agriculture are not taken into account. Financial indicators are not taken into account.

The indicators characteristic for agricultural enterprises are not taken into account. It is reasonable to analyze the integrated performance indicator in dynamics, as only in this case it is possible to determine the pace of change, and based on the results obtained, conclusions can be drawn about increasing or decreasing the effectiveness of the entire enterprise.

Indicators specific to agriculture are not taken into account. This only applies if the indicators are reduced to a comparable estimate.

This is not suitable for a comprehensive assessment of the effectiveness of an agricultural enterprise, most applicable for financial assessment. Indicators specific to agriculture are not taken into account.

This formula is most suitable for evaluating the production, and not the activities of the enterprise as a whole.

Financial and agricultural-specific indicators are not taken into account.
Methodology and its essence

Performance evaluation taking into account net income and average annual value of fixed assets (Petrakov, 2012).

\[ F_{Doch} = \frac{OFPF - 1}{OFPF} \]

where \( Darch \) — the centralized net income of the organization;

\( OFPF \) — the average annual value of production assets;

\( P \) — profit from sales;

\( A \) — the total amount of depreciation;

\( K_e \) — actually incurred expenses for capital repairs;

\( PCPF \) — actual costs for the full restoration of fixed assets;

\( PCPF \) — accumulated fund;

\( ChPF \) — the average annual value of production assets, taking into account the value of fixed assets according to their initial assessment;

\( I \) — depreciation of fixed assets for the period of functioning of the organization.

\[ S_1 = \frac{K_e}{F} \times \frac{P}{S_1} \times \frac{F}{PCPF} \times \frac{ChPF}{Z} \]

where \( P1 \) — the amount of profit for a certain period before tax;

\( P2 \) — the same minus interest for the loan;

\( K_e \) — equity; \( F \) — financial reserve;

\( Parch \) — conditionally net profit (the difference between gross output, overhead costs and depreciation deductions);

\( Z \) — the sum of long-term loans and short-term debt.

The disadvantages of the methods

In our opinion, this formula allows a greater degree to evaluate the efficiency of using fixed assets, but not a comprehensive assessment of the effectiveness of the enterprise.

Indicators specific to agriculture are not taken into account.

Performance evaluation for each type of resources used (fixed production assets, labor, material and financial resources) (Lyubushin, 2010).

The technique of static-dynamic performance evaluation (Petrakov, 2012).

Assessment of the effectiveness of enterprises, taking into account profit and cost (Ilyin, Stankevich, Loban, 2005).

\[ Eadk = \frac{P}{S} - \frac{P}{S} \times K \]

\( P, Pm \) — the actual and regulatory amount of profit;

\( S, Sm \) — the actual and standard cost of production;

\( K \) — coefficient showing the ratio of the actual volume of profit to the standard level.

For crop production

\[ P_i = \sum S_i \times V_i \times D_i \times P_i - \sum Q_i \times C_i \rightarrow \max \]

\( S_i \) — the optimal area of arable land occupied by the i-th food crop;

\( V_i \) — the potential yield of the i-th crop based on available production resources;

\( D_i \) — the proportion of marketable products of the i-th culture;

\( P_i \) — the price of products of the i-th culture on the basis of the prevailing market conditions;

\( Q_i \) — the volume of sales of the i-th culture;

\( C_i \) — the estimated cost of production of the i-th culture.

For livestock

\[ P_i = \sum \left( P_{p1} + D_i - \sum Q_iC_i \rightarrow \max \right) \]

\( H_i \) — the structure herd of animals of the i-th species;

\( P_{p1} \) — potentially possible productivity of animals of the i-th species;

\( D_i \) — the proportion of marketable livestock products;

\( P_i \) — product price;

\( Q_i \) — sales volume;

\( C_i \) — estimated cost of production.

There is no generally accepted indicator for calculating the effectiveness of managing agricultural organizations in the economic literature.
Results and discussion

Most methods, except the last, do not take into account indicators characterizing the agricultural sector. However, the indicators for calculating the effectiveness of managing the activities of an agricultural organization using this methodology are not all publicly available, which is a problem for external users when making decisions, if they are interested in this business.

In many existing methods, instead of the effectiveness of organizations, a complex considers the efficiency of production and the use of resources (Ostaev, Khosiev, Klychova, 2018; Ostaev, Khosiev, Kallagova, 2018).

Currently, most of the techniques applicable to assess the effectiveness of agricultural activities are based on cost and financial results (Ostaev, Klychova, Sokolovam, 2018). The planned economy of the USSR can be taken for comparison, since its effectiveness could be estimated by comparing the plan established by the state and fact.

Based on the considered existing methods and their shortcomings, a management accounting methodology was developed (a comprehensive assessment of the effectiveness of managing the activities of agricultural organizations, enterprises). The developed management accounting methodology takes into account the different activities of the agricultural organization. At the same time, it is possible to make a calculation according to the management accounting method proposed by us only on the basis of the reporting of the agricultural organization, which is presented in the public domain.

Agricultural organizations of Russia compile reports on specialized forms in addition to the 5 main reporting forms (table 2).

Table 2.
Specialized forms approved by order of the Ministry of Agriculture of Russia

| No | The form   | Name                                             |
|----|------------|--------------------------------------------------|
| 1  | Form No. 5-AIC | The number and payroll of agricultural workers   |
| 2  | Form No. 7-AIC | Report on the sale of agricultural products     |
| 3  | Form No. 8-AIC | Report on the costs of the main production       |
| 4  | Form No. 9-AIC | Report on the production and cost of crop production |
| 5  | Form No. 10-AIC | Target Funding Report                           |
| 6  | Form No. 13-AIC | Production and cost of livestock products       |
| 7  | Form No. 15-AIC | The presence of animals                         |
| 8  | Form No. 16-AIC | Product balance                                 |
| 9  | Form No. 17-AIC | Report on agricultural machinery and energy     |

The stages of the management accounting methodology developed by us - an assessment of the management efficiency of an agricultural organization is presented in Figure 1.
Figure 1. Stages of management accounting methodology (assessment of the management efficiency of an agricultural organization)

We have proposed 10 indicators for a comprehensive assessment of the effectiveness of the management of an agricultural organization. In our opinion, these indicators make it possible to most fully evaluate the management efficiency of an agricultural organization from different angles (table 3).

Table 3.
Indicators of management efficiency of the agricultural organization

| No. | Performance indicators                                      | Purpose of the indicator                                                                                                                                 |
|-----|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Livestock sales profitability (excluding subsidies)         | Return on sales shows how much profit an enterprise receives from each ruble of products sold. Return on sales is an indicator of a company's pricing policy and its ability to control costs. |
|     |                                                             | Return on sales shows how much profit an enterprise receives from each ruble of products sold. Return on sales is an indicator of a company's pricing policy and its ability to control costs. |
| 2   | Crop sales profitability (excluding subsidies)               | Return on sales shows how much profit an enterprise receives from each ruble of products sold. This ratio shows the financial return on the use of assets. |
|     |                                                             | Return on sales shows how much profit an enterprise receives from each ruble of products sold. This ratio shows the financial return on the use of assets. |
| 3   | Return on assets (excluding subsidies)                      | Return on assets shows how many cents of profit from sales or net profit will bring one ruble invested in the assets of the organization. Return on assets also reflects the ability of assets to generate profits (Kislitsky, Gogolev and Ostaev, 2018). |
|     |                                                             | It characterizes the efficiency, effectiveness of labor costs. Economists link the growth of labor productivity with an increase in the manufacturability of production (Kontsevaya, 2017). |
| 4   | Labor productivity                                          |                                                                                                                                                    |
| No. | Performance indicators | Purpose of the indicator |
|-----|------------------------|--------------------------|
| 5   | Return on assets       | It characterizes the efficiency of using fixed assets. The effective use of fixed assets allows to increase production volumes, reduce production costs, increasing labor productivity (Kovaleva, Rusetskiy, Okorokova, Antoshkina and Frantsisko, 2017). And this directly affects the increase in return on equity, profitability. The capital productivity ratio does not have a generally accepted normal value. Because the indicator is highly dependent on industry characteristics. For example, in capital-intensive industries, the share of fixed assets in the assets of the enterprise is large, so the ratio will be lower. If we consider the indicator of capital productivity in dynamics, then the growth of the coefficient indicates an increase in the intensity of use of equipment. Shows the company's ability to repay current (short-term) obligations at the expense of only current assets. The larger the ratio, the better the solvency of the enterprise. This indicator takes into account that not all assets can be sold urgently. The ratio shows how independent the organization is from creditors. The smaller the coefficient value, the more the organization is dependent on borrowed sources of financing, the less stable its financial situation. This indicator depends on the industry, and more precisely on the ratio in the structure of the property of the organization of non-current and current assets. The higher the share of non-current assets (capital-intensive production), the more long-term sources are required to finance them, therefore, the share of equity should be higher (higher autonomy ratio) |
| 6   | Liquidity ratio        | This comparison characterizes the financial stability of the organization. If the growth rate of equity exceeds the growth rate of borrowed capital, this indicates the strengthening of the financial stability of the enterprise. If the growth rate of borrowed capital is higher than the growth rate of equity, this can lead to financial instability, a high dependence of the organization on creditors. |
| 7   | Autonomy ratio         | This indicator means an increase in production profitability. |
| 8   | Growth rate of equity> Growth rate of borrowed capital | This ratio indicates the correct tax system. |
| 9   | Sales profit growth rate> Revenue growth rate | The generally accepted include: |
| 10  | Net profit growth rate> Pre-tax profit growth rate | • current ratio; |
|     |                         | • Autonomy coefficient |
Table 4. Calculation of indicators of the effectiveness of agricultural enterprise management for management accounting.

| № n/n | Performance indicator | Calculation formula | Optimal value |
|-------|------------------------|---------------------|---------------|
| 1     | Livestock sales profitability (excluding subsidies) | \( V_{zh} - C_{zh} \) \( \frac{V_{zh}}{V_{zh}} \) | 18.1 |
| 2     | Crop sales profitability (excluding subsidies) | \( V_r - C_r \) \( \frac{V_r}{V_r} \) | 2.2 |
| 3     | Return on assets (excluding subsidies) | \( CHP \) – net profit \( A \) – Asset value \( \frac{V}{CHr} \) | 20% |
| 4     | Labor productivity | \( V \) - revenue \( CHr \) - number of workers \( \frac{V}{OS} \) | 1089 |
| 5     | Return on assets | \( V \) - revenue \( OS \) - fixed assets value \( \frac{Z + Ra + S}{Pt} \) | 1.69 |
| 6     | Current ratio | \( Z \) – Stocks \( Ra \) – Receivables \( S \) - Cash \( Pt \) – Current liabilities \( \frac{Ec}{Bp} \) | 2 |
| 7     | Autonomy ratio | \( Ec \) – Equity \( Bp \) – Enterprise Capital \( Ec_{ot} \geq \frac{(Pt + Kd)_{ot}}{Pt_{ot}} \) \( Ec_{pr} \geq \frac{(Pt + Kd)_{pr}}{Pt_{pr}} \) \( Ec_{ot}, Ec_{pr} \) - Equity of the reporting and previous periods | 0.7-0.8 |
| 8     | Growth rate of equity> Growth rate of borrowed capital | \( Pt_{ot}, Pt_{pr}\) pr - Short-term liabilities of the reporting and previous periods \( Kd_{ot}, Kd_{pr} \) – Long-term liabilities of the reporting and previous periods \( Ppot \), \( Ppot_{pr} \) > \( V_{ot} \) \( V_{ot} \) | - |
| 9     | Sales profit growth rate> Revenue growth rate | \( Vot, Vpr \) - Revenue of the reporting and previous periods \( Ppot, Pppr \) – Profit from sales of the reporting and previous periods \( \frac{CHP_{ot}}{CHP_{pr}} \geq \frac{Pnot}{Pnpr} \) | - |
| 10    | Net profit growth rate> Pre-tax profit growth rate | \( CHpot, CHPpr \) - Net profit of the reporting and previous periods \( Pnot, Pnpr \) - Profit before tax reporting and previous periods | - |

Compiled by the authors
Next, we consider the forms and lines of public reporting necessary for the application of the management accounting methodology developed by us.

**Table 5.**
*Reporting forms necessary for the application of the developed methodology*

| No | Name of indicator | Reporting form |
|----|-------------------|----------------|
| 1  | Vzh – revenue from livestock sales | AIC -13 |
| 2  | Szh – the cost of livestock production | AIC -13 |
| 3  | Vr – revenue from crop production sales | AIC -9 |
| 4  | Sr – the cost of production | AIC -9 |
| 5  | CHP – net profit | Income statement |
| 6  | A – value of assets | Balance sheet |
| 7  | V – revenue | Income statement |
| 8  | CHr – number of workers | AIC -5 |
| 9  | OS – the cost of fixed assets | Balance sheet |
| 10 | Z – stocks | Balance sheet |
| 11 | Ra – Accounts receivable | Balance sheet |
| 12 | S – Cash | Balance sheet |
| 13 | Pt – Current liabilities | Balance sheet |
| 14 | Ec – Equity | Balance sheet |
| 15 | Bp – Enterprise Capital | Balance sheet |
| 16 | Kd – Long-term liabilities | Balance sheet |
| 17 | Pp – Profit from sales | Income statement |
| 18 | Pn – Profit before tax | Income statement |

These tables confirm that management effectiveness can be assessed using reports with open access status.

After calculation, each indicator is assigned a certain number of points. If the indicator is higher or equal to the optimal value, this is one point; if below it is zero. When the ratio is fulfilled, this is one point, and vice versa, if the ratio is not fulfilled, zero.

Next, we consider the total number of points. Effective management of the agricultural business is one in which the total number of points is from 6 to 10.

**Conclusions**

The following are the advantages of the management accounting methodology developed by us: objectivity; financial indicators are taken into account; agricultural indicators are taken into account; all indicators are calculated on the basis of reporting forms that are publicly available; main indicators of resource efficiency, such as labor, fixed assets, are taken into account. Consequently, the proposed activities will be understandable not only to internal users but also to external ones, which is important for attracting investments and concluding agreements with interested counterparties.

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