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УПРАВЛЕНИЕ ДЕНЕЖНЫМИ ПОТОКАМИ В СЕЛЬСКОХОЗЯЙСТВЕННЫХ ОРГАНИЗАЦИЯХ

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Аннотация. Повышение эффективности управления денежными потоками в сельскохозяйственных организациях является актуальной проблемой в современных условиях хозяйствования, так как финансовое состояние многих из них характеризуется в настоящее время как неустойчивое. Управление денежными потоками является ключевым аспектом деятельности любого предприятия, поскольку посредством его осуществляется регулирование других сфер деятельности хозяйствующего субъекта. Сельскохозяйственные организации испытывают хроническую нехватку денежных средств, что приводит к неудовлетворительной платежеспособности, и в результате к дефициту денежных средств для расчетов с кредиторами за материальные ресурсы и оказываемые услуги, а также образованию кредиторской задолженности перед различными субъектами экономики. На примере отдельно взятого района Красноярского края (Ермаковского района), авторы выявляют общие проблемные аспекты, характерные для сельскохозяйственных предприятий; анализируют финансовое состояние предприятия ООО «Ермак»; предлагают аутсорсинг как метод совершенствования деятельности предприятия, а именно передачу организацией на основании договора определенных бизнес-процессов или производственных функций на обслуживание другой компании, специализирующейся в соответствующей области.

Ключевые слова: денежный поток, управление денежными потоками, финансы, стратегия, тактика, оптимизация, планирование, аутсорсинг.

MANAGEMENT OF CASH FLOWS IN AGRICULTURAL ORGANIZATIONS

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Abstract. Improving the efficiency of cash flow management in agricultural organizations is an urgent problem in modern economic conditions, because the financial condition of many of them is currently characterized as unstable. Cash flow management is a key aspect of any enterprise, as it regulates other areas of the economic entity activity. Agricultural organizations are experiencing a chronic shortage of funds, which leads to poor solvency, which results in a shortage of funds for payments to creditors for material resources and services, as well as the formation of accounts payable to various economic entities. On the example of a single district of the Krasnoyarsk territory (Yermakovsky district), the authors identify common problem aspects characteristic of agricultural enterprises; analyze the financial condition of the company LLC "Yermak"; offer outsourcing as a method of improving the enterprise, namely the transfer of the organization on the basis of the contract of certain business processes or production functions to service another company specializing in the relevant field.

Keywords: cash flow, cash flow management, finance, strategy, tactics, optimization, planning, outsourcing.

The process of economic entities functioning in the market economy is provided by the movement of financial resources or cash flows. The cash flow of the organization is a community of distributed over time intervals receipts and payments of funds that occur in the course of the enterprise economic activity [1]. The definition of "cash flow" is considered in many studies of both foreign and domestic scientists-economists, such as Brigham Yu. and Gapensky L. [2], Van Horn J. K. [3], Rais T. and Kolly B. [4], Antonova A.P. [5].

Cash flow is characterized by Romanovsky V.M. as "the result of the movement of funds in the organization for a particular period of time, i.e., as the difference between cash receipts and payments for the period" [6].

In their study, Borodin A.I. and Shash N.N. note that some foreign theorists (mostly Bernstein L. A., and Brigham E.F.), use the term "cash flow" to identify the process of cash flow [7].

Such scientists as Nos V.A., Reife M.E., Uvarov S.A. proposed a more interesting level of generalization and formulation of the category "flow" – as a set of objects, perceived as a whole and existing as a process that occurs continuously at a certain time interval" [8].

The art of cash flow management of the enterprise is part of the domestic practice of management, using the rich experience of the economy. Financial management carried out by a particular enterprise is implemented through the developed financial policy, strategy and appropriate tactics. In other words, financial management involves management strategy

and tactics [9].

According to Professor Pavlova L.N. financial management is a "complex process of management of money turnover, funds, financial resources of enterprises and commercial organizations engaged in business activity" [10]. At the same time, management of financial activity of the enterprise is presented by the author as process of management of a monetary turnover. According to Rodionova V.M., the following functional elements exist in the financial management system – planning, operational management and control [11]. Proponent of this approach is Balabanov I.T., who in his research has somewhat expanded this range [12].

In the work of authors Kamenova A.V., and Adam N.A. it was noted that "the process of financial management is a sequential implementation of a series of procedures that involves the allocation of the relevant control functions" [13].

As noted by Blank I.B. "optimization of cash flows is a process of choosing the best forms of their organization in the enterprise, taking into account the conditions and characteristics of its economic activity" [14].

The integral element of activity of the agricultural enterprise is planning of monetary turnover as on its basis it is possible to judge the possible directions of development of the enterprise activity. We calculate the volume of incoming cash flow from sales of sales for the next year, using economic and statistical methods of planning. The calculation of this indicator is extremely important for planning your own

activities.

Ilyin A.I. proposed modern methods of forecasting cash flows in agricultural organizations. Economic justification of cash flows by total volume is carried out by several methods [15]. These methods are based on the determination of statistical averages for previous periods and the calculation on this basis of trade turnover for the next year.

1. Method of calculating the total incoming cash flow at the average annual growth rate: price Index for the planning period – 1,1.

Let's calculate the average annual growth rate of turnover, using the raw data presented in the table 1.

Table 1 – Cash flows in LLC «Yermak»

Title	Indicator, thousand rubles			Growth rate, %		
	2015	2016	2017	2015/2014	2016/2015	2017/2016
Received funds, total,	93259	139665	130331	65,00	49,76	-6,68
including the sale of products, goods, works and services	75491	94644	85533	71,00	25,37	-9,63

Let's calculate the planned amount of cash flow in the studied enterprise.

$$\overline{T_p} = \sqrt[n-1]{\frac{P_n}{P_0}} \times 100 = \sqrt[3-1]{\frac{130331}{93259}} \times 100 = 118,22 \%$$

$$\overline{T_p} = \sqrt[n-1]{\frac{P_n}{P_0}} \times 100 = \sqrt[3-1]{\frac{85533}{75491}} \times 100 = 106,44 \%$$

Then we find the planned incoming cash flow by the formula:

$$P_{n\pi} = \frac{P_i \times T_p \times J_{\pi}}{100} = \frac{130331 \times 118,22 \times 1,1}{100} = 169485 \text{ thousand rub}$$

$$P_{n\pi} = \frac{P_i \times T_p \times J_{\pi}}{100} = \frac{10880 \times 135,18 \times 1,1}{100} = 100145,45 \text{ thousand rub}$$

2. The method of alignment of the dynamic series on the moving average.

Let's determine the planned incoming cash flow based on the alignment of the dynamic series on the moving average, for this we build table 2 and make the following calculations.

Table 2 – Initial and calculated data of the average annual growth rate of incoming cash flow as a whole

Years	Growth rates of cash at comparable prices, %	Conventional sign	Alignment on moving average
2015	65	K ₁	-
2016	49,76	K ₂	$\overline{K}_1 = \frac{K_1 + K_2}{2} = \frac{65 + 49,76}{2} = 57,38$
2017	-6,68	K ₃	$\overline{K}_2 = \frac{K_2 + K_3}{2} = \frac{-6,68 + 49,76}{2} = 21,54$

Table 3 – Initial and calculated data of the average annual growth rate of incoming cash flow from the sale of products, goods

Years	Growth rates of cash at comparable prices, %	Conventional sign	Alignment on moving average
2015	71	K ₁	-
2016	25,37	K ₂	$\overline{K}_1 = \frac{K_1 + K_2}{2} = \frac{71 + 25,37}{2} = 48,19$
2017	-9,63	K ₃	$\overline{K}_2 = \frac{K_2 + K_3}{2} = \frac{-9,63 + 25,37}{2} = 7,87$

Let's calculate the planned amount of funds received.

$$\Delta \overline{K} = \frac{K_2 - K_1}{2 - 1} = \frac{21,54 - 57,38}{1} = 35,84 \%$$

Planned

$$K_{n\pi} = K_{n-1} + \Delta K = 48,19 + 35,84 = 84,03 \%$$

$$P_{n\pi} = \frac{P_i \times J_{\pi} \times T_{p\pi} \times J_{n\pi}}{100} = \frac{130331 \times (100 + 84,03) \times 1,1}{100} = 26833 \text{ thousand rub}$$

Let's calculate the planned amount of cash from the sale of products:

$$\Delta \overline{K} = \frac{K_2 - K_1}{2 - 1} = \frac{49,19 - 7,87}{1} = 41,32 \%$$

Planned

$$K_{n\pi} = K_{n-1} + \Delta K = 48,19 + 41,32 = 89,51 \%$$

$$P_{n\pi} = \frac{P_i \times J_{\pi} \times T_{p\pi} \times J_{n\pi}}{100} = \frac{85533 \times (100 + 89,51) \times 1,1}{100} = 178303 \text{ thousand rub}$$

We will calculate the volume of incoming cash flow for the next year by economic and mathematical method with the use of a temporary (trend) model:

$$y = a + bt,$$

where y – incoming cash flow;

t – time factor;

a, b – equation parameters.

To find the parameters “a” and “b” we solve the system of normal equations:

$$\begin{cases} \sum y = an + b \sum t \\ \sum yt = a \sum t + b \sum t^2 \end{cases}$$

Table 4 – Initial data for calculation of the model parameters

Years (t)	Incoming cash flows thousand rubles (y)	y*t	t ²
1	93259	93259	1
2	139665	279330	4
3	130331	390993	9
$\Sigma t = 6$	$\Sigma y = 363255$	$\Sigma yt = 763582$	$\Sigma t^2 = 14$

System of equations in digital form

$$\begin{cases} 363255 = a + 6b \\ 763582 = 6a + 14b \end{cases}$$

To solve, each equation must be divided by the value of the coefficient for the parameter “a”, i.e. the first equation by 3, and the second by 6, we obtain:

$$\begin{cases} 121085 = a + 2b \\ 127263,66 = 6a + 2,3b \end{cases}$$

We subtract the first equation from the second:

$$6178,66 = 0,33b;$$

$$\text{from here: } b = \frac{6178,6}{0,3} = 18723,2$$

The parameter “a” is found by substituting any of the equations of the parameter “b”: $121085 = a + 2 \cdot 18723,2$; $a = 83639$

Thus, the time model has the following form: $y = 83639 + 18723,2t$.

Substituting into the equation $t=4$ (planned year), we get the planned volume of trade turnover: $P_{\pi\pi} = 83639 + 18723,2 \cdot 4 = 158532$ (thousand rubles)

Let's plan the incoming cash flow by the method of expert assessments. The commission of 5 experts – workers of the agricultural enterprise was created. Based on the methods of planning and their own experience, the planned turnover in the amount of 15185 rubles has been calculated. According to the results of the calculations we will construct the summary table of draft plan of trade turnover (table 5).

Table 5 – Plan of incoming cash flow of LLC “Yermak”

Planning methods	Planned volume of cash flow income	Including the sale of products
1. Economic and statistical:		
1.1. calculation of average annual growth rates	169485	100145,45
1.2. based on the dynamic series alignment with the moving average	263833	178303
2. Economic and mathematical method	158532	90632,12
3. Expert evaluation method	160500	95850
Chosen project	159516	93241,1

From the amounts received, an average is formed as the most optimal size of the planned cash flow.

Similarly, the planned cash flow for individual products can be calculated (table 6.)

Table 6 – Structure of production sales of LLC “Yermak”, thousand rubles.

Produced goods	2015	2016	2017	Planned period
Crop production	41172	20986	7558	9220,76
Live weight, meat and meat products of cattle	6697	9906	10146	13900,02
Milk	19044	19814	27178	34516,06

In order to improve the work of the enterprise on the

example of LLC "Yermak" we will develop a flexible credit policy for buyers of agricultural products, which will increase the amount of money turnover of the enterprise.

In the process of agricultural activity, all analyzed enterprises experience a constant short-term need for cash in order to purchase raw materials, pay for fuel, and provide a deferral to buyers. This requires working capital (own working capital). The importance of working capital for the economy is that it is considered to be one of the main sources of coverage of the current needs for financing of current assets. The reduction in the average duration of turnover of all working capital expresses the economic content of current financial needs (CFN).

On the example of LLC "Yermak" we will determine the current financial needs of enterprises.

Table 7 – Determination of the current financial needs of LLC "Yermak", thousand rubles.

Indicator	Beginning of the year		
	2015	2016	2017
1. Amount of short-term liabilities	91754	108354	95538
including:			
borrowed funds	12600	0	413
creditor indebtedness	79154	108354	102276
2. Value of current assets, total	103191	129057	102276
including:			
stock	79155	93240	70185
debtor indebtedness	23893	31300	28256
monetary funds (MF)	143	4517	3835
3. Availability of own working capital (OWC)	11437	20703	4957
4. Current financial needs (CFN)	23894	16186	4989
5. Potential cash surplus (deficit)	-12457	4517	3422
6. Real cash surplus (deficit)	143	4517	3835

LLC "Yermak" has its own working capital, but it is not enough to cover the current financial needs in 2015 and 2017, so there is a shortage of funds. This lack is covered by the company, attracting short-term loans of a commercial Bank (OJSC "Rosselkhozbank"), but attracts them in an amount that exceeds the need. In 2017, the current financial need was covered with credit money and own working capital.

The existing sales channels at the company "Yermak" are quite effective, the quality of products is at a high level, but at the same time there are reserves to improve the efficiency of sales and search for new sales channels.

On the basis of the above mentioned problems, it can be concluded that the company does not effectively manage its financial resources, and, consequently, the economy as a whole. This is due to the fact that the company does not have a flexible credit policy.

For the investigated enterprise it is offered to develop trade of production on the basis of flexible credit policy that is to involve as much as possible number of buyers into the trade activity, and for effective work of the enterprise in this direction the provision with money is necessary. To a large extent sources of the formation determine the effectiveness of working capital. The establishment of an optimal ratio between own and attracted funds, due to the specific features of the circulation of funds in a particular economic entity is an important task of the company.

In this regard, the growth of efficiency will be significantly affected by the introduction of flexible credit policy towards customers.

That is, the development of a discount system is based on the credit policy of the enterprise. LLC "Yermak" has regular buyers of production; however, for attraction of new consumers the new flexible credit policy which will allow to attract new customers on favorable terms is necessary.

Thus, sales activity is one of the key for the agricultural organization, the essence of which is to ensure profitable work. The effectiveness of the marketing activities of an agricultural organization depends not only on its organization, but also on the state regulation of the agricultural market.

For agricultural enterprises of Yermakovsky district several common problem aspects are characteristic:

- lack of qualified personnel in financial planning;
- problems of sales of products of enterprises, and the lack of qualified specialists that leads to inefficient use of funds;
- problems of interaction between structural units of

enterprises, as well as the lack of relationships between enterprises of the district, which has a negative impact on sales, revenue and, accordingly, to reduce the volume of cash flows of enterprises.

In this regard, outsourcing is offered as the method of improvement for the agricultural enterprises of Yermakovsky district. Outsourcing is the transfer of certain business processes or production functions to another company, specializing in the relevant field, by an organization on the basis of a contract [16]. It is proposed to outsource three areas of activity that are associated with the organization of cash flows of enterprises in the agricultural sector:

1) Financial planning of trade turnover of agricultural enterprises;

2) Development of measures to increase the productivity of animal husbandry by increasing the productivity of animals, living conditions;

3) Creation of a sales unit for all enterprises of the Yermakovsky district, which would be responsible for the sales function and the development of a flexible credit policy.

Unlike services and support services, which have a one-time, episodic, random nature, outsourcing is usually transferred to the functions of professional support for the smooth operation of individual systems and infrastructure on the basis of a long contract (at least 1 year), which is a distinctive feature of outsourcing from other forms of service [17].

Experts noted that using outsourcing in agriculture enterprises significantly increase their efficiency, because in terms of organizational development and equipment with modern technology, as well as investment opportunities, agricultural enterprises lag far behind industrial enterprises and service companies. The introduction of outsourcing allows agricultural enterprises to gain access to the resources that outsourcers have without significant costs [18].

Conclusion

The performed calculations of the planned volume of cash flows allow us to assert that even under the pessimistic scenario, LLC "Yermak" can establish a discount for regular customers, since a flexible credit policy will lead to a reduction in the accounts receivable of LLC "Yermak" by stimulating its debtors to pay for the sold products faster. The specified actions lead to increase of efficiency of activity of the enterprise as a whole.

Under the new flexible credit policy, it is proposed to find additional distribution channels. To implement these measures, the company does not have its own funds, and loans can aggravate the situation in the enterprise. In this regard, the studied enterprises should seek support (including organizational and information) of the administration of the Yermakovsky district. With the help of administrative resources, agricultural enterprises will be able to find new markets in the center of the Krasnoyarsk territory due to a flexible credit policy.

It should be noted that all the proposed activities can be implemented on the basis of the singled-out unit-outsourcer at the LLC "Yermak". The division will employ highly qualified specialists who will analyze the market in order to attract solvent buyers, establish contacts in the market, and promote the products of enterprises of the Yermakovsky district to the market of the Krasnoyarsk territory and Khakassia. The outsourcer will plan the key performance indicators of the enterprises, including the incoming cash flows of the enterprise. This work will help to make the most substantiated decisions in the commercial sphere and improve the cash flows of enterprises.

REFERENCES:

1. Алборов Р.А. Внутрихозяйственный контроль (аудит) в организациях АПК [Текст] : учебное пособие / Р.А. Алборов, Т.Р. Галлямова. – Издательство: Башкирский государственный аграрный университет. Уфа, 2004. – 79 с.
2. Бриггем Ю. Финансовый менеджмент: Том 1 / Юджин Бриггем, Луис Гапенски. М.: Книга по Требованию, 2017. – 431 с.
3. Ван Хорн Дж. К. Основы управления финансами: Пер. с англ. – М.: Финансы и статистика. – 1997. – 800 с

4. Райс Т., Коли Б. Финансовые инвестиции и риски. – Киев: Издательское бюро ВНУ, 1995.
5. Антонов А.П. Денежный поток: описание сущности понятия / А.П. Антонов // Инновационная наука. 2017. № 01(1). – С. 15.
6. Финансы, денежное обращение и кредит: учебник для академического бакалавриата / под ред. М. В. Романовского, О. В. Врублевской, Н. Г. Ивановой. – 3-е изд., перераб. и доп. – М.: Издательство Юрайт, 2016. – 523 с.
7. Бородин А.И. Финансы: взаимосвязь категорий денег и финансов / А.И. Бородин, Н.Н. Шаш // Деньги и кредит. 2012. № 6. С. 74–77.
8. Нос В.А., Рейфе М.Е., Уваров С.А. Логистика. 5-е изд. М.: Юрайт, 2014. – 205 с.
9. Румянцева З., Соломатин И., Акбердин Р. Стратегический менеджмент / З. Румянцева, И. Соломатин, Р. Акбердин // Консультант директора. 2016. №2. С. 24-26.
10. Павлова Л.Н. Финансовый менеджмент: Учебник для вузов. – 2-е изд., перераб. и доп. – М.: ЮНИТИ-ДАНА, 2003. – 269 с.
11. Финансы. Учебник под ред. В.М. Родионовой. – М.: Финансы и статистика, 1992.
12. Балабанов И.Т. Финансовый менеджмент: Учебник для проф. учеб. завед. – М.: Финансы и статистика, 2014. – 384 с.
13. Кеменов А.В. Функции управления финансами строительных организаций: источники финансирования и вопросы бюджетирования / А.В. Кеменов, Н.А. Адамов // Российский экономический интернет-журнал. 2016. № 2. С. 26. // <http://www.erej.ru/upload/iblock/c4e/c4e45cfb89a05d29d265b63f47c78814.pdf>
14. Бланк И.А. Управление денежными потоками / И.А. Бланк. – Ника-Центр «Эльга», 2013. – 736 с.
15. Ильин А.И. Особенности сельского хозяйства, влияющие на эффективность сельскохозяйственного производства / А.И. Ильин – СПб.: Международный научно-исследовательский журнал. – 2016. – №6. – С. 26 - 28.
16. Однокоз В.Г. Аутсорсинг как фактор повышения конкурентоспособности современного бизнеса / В.Г. Однокоз – СПб.: Международный научно-исследовательский журнал. – 2016. – №6. – С. 10 - 25.
17. Енгальцева А.Е.- Аутсорсинг: актуально и профессионально / А.Е. Енгальцева. – СПб.: Журнал «Справочник экономиста» – 2017. – №.1 – 32 с.
18. Аникин Б. А., Рудая И. Л. Аутсорсинг и Аутстаффинг: высокие технологии менеджмента / Б. А. Аникин, И. Л. Рудая. - М.: Экономика, 2016. – С. 25-65

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