

## Ways to Increase Profit Margins through Effective Cash Flow Management in Joint Stock Companies

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### ABSTRACT

This article analyzes the importance of improving the system of effective cash flow management in joint stock companies, improving the financial condition of the enterprise, international experience and its indicators. There are also scientific recommendations for the successful management of financial assets

**Key words:** joint stock companies, financial assets, debtor, creditor, non-financial assets, real assets, funds

### 1. Introduction

One of the most important fundamental principles of a market economy is based on the concept of time value of money, based on which it is necessary to ensure that cash management in enterprises has a positive effect on money to increase their profitability. The economic nature of money is that it depreciates under the influence of inflationary pressures; a constant need for money; investing in cash is explained by the fact that it has the characteristics of a financial asset with the potential to generate high returns.

However, in practice, firms have to keep a portion of their funds in check to pay their fees and unforeseen expenses. In this case, as Van Horn points out: "money has the same value as lost profits"<sup>1</sup>. The measure of this value of money is the interest rate on bank deposits or short-term securities.

It is known that the need for cash in the financial and economic activities of enterprises is a process associated with their expenditure, while the process of formation of income and income in monetary terms is the cash inflow of value. This process is constantly and continuously monitored during operational activities, it is accepted in science and practice that it is called a cash flow when it is systematized from a management point of view. Cash flow and its stable management is a key factor in ensuring the liquidity of any business entity, and this factor is also based on the fundamental rules of financial asset management. Cash flow management combines to meet the optimal need for cash by periodically changing the cycle of current financial assets.

### 2. References

Economist V.D. Gerasimova also sees solvency as an opportunity to repay cash on time<sup>2</sup>.

Therefore, summarizing the above, it is worth noting that, the money will primarily improve the ability to pay by repaying current liabilities. Based on its composition and dynamics, it is possible to assess the extent to which this function of funds is performed. In Table 2.6, along with the dynamic growth of cash, there is a tendency to change in its structure.

It is worth emphasizing that, the economic literature focuses on the management of money, mainly to ensure solvency<sup>3</sup>. We can see this in the opinions of these economists. For instance, according to Russian economist V.V. Kovalev, the solvency is the availability of cash and cash equivalents<sup>4</sup> for quick repayment of accounts payable for accounts in this company.

So, there are two parts to the content of solvency: active and passive. Active assets, availability of the required amount of money and passive assets - non-existence of overdue accounts payable.

Opinions on the economic nature of investments in receivables, which are an element of financial assets, and the impact on the market value of companies, are illustrated by economist S. O. John<sup>4</sup>. Issues of balanced management of current

<sup>1</sup> James C. Van Horne, John M. Wachowicz Jr. / Джеймс Ван Хорн, Джон Ваховиц - Fundamentals of Financial Management / Основы Финансового Менеджмента (13th ed. / 13-е изд.) [2008, PDF, ENG]: <https://institutiones.com/download/books/1751-osnovy-finansovogo-menedzhmenta-van-xorn.html>

<sup>2</sup> Геращенко В.Д. Анализ и диагностика финансово-хозяйственной деятельности промышленного предприятия. М.: КНОРУС, 2011.-356 с.(с. 124).

<sup>3</sup> Кастраницкая, Т. И. Экономическая сущность денежных средств и платежеспособности предприятия / Т. И. Кастраницкая. — Текст: непосредственный // Молодой ученый. — 2017. — № 22 (156). — С. 268-270.

<sup>4</sup> John S. Oh. Opportunity Cost in the Evaluation of Investment in Accounts Receivable // Financial Management, Vol. 5. №2 (Summer, 1976). P. 32-36.

financial assets and liabilities formed by commercial credit were studied in S.Daniel and R.F.Seiferts' researchs<sup>5</sup>. Economist M.D. Baweld proved that the impact of working capital on the profitability of Dutch companies during the financial crisis was high<sup>6</sup>. X. Kim Jong-un and Joseph Atkins based their empirical research on the effect of receivables on current financial assets on maximizing companies' market value<sup>7</sup>. One of the unique studies on this subject were issued by Zvee Lieber and Jair E. Orders. They developed an integrated model of the impact of receivables on the financial and economic performance of companies<sup>8</sup>.

It is known that we have seen in the above chapters that the turnover of current assets, which is working capital, has a positive significance in terms of increasing the efficiency of financial and economic activities.

### 3. Research methodology

Theoretical methods of scientific knowledge from scientific abstraction are widely used as research methodology. Also, from empirical methods: logical and comparative methods of analysis, generalization, grouping, comparative analysis, statistical analysis, prospective forecasting and other methods were used.

### 4. Analysis and discussion of results

The purpose of cash flow management - insurance surplus cash income to generate income, reserves sufficient to meet payment obligations and other contingencies. Thus, companies have an objective need to justify an optimal balance of funds in order to maintain solvency, synchronize cash flows, and generate additional revenue. A number of developed models are used in the theory of inventory management and allow to optimize and predict the amount of cash. There are models that can be used to determine the target cash balance in the current account for effective cash management.

Such models may include the Baumol and Miller-Orr models. The essence of these models is that they give us an opportunity to determine the amount of funds in the current account and cash of the enterprise, the amount of funds in the form of quick-selling securities. The need for the necessary reserve of funds has a probabilistic characterization, and it is expedient to introduce models of stochastic characterization in its modeling.

The target balance is determined taking into account the following cases:

- 1) formation of current operations and security reserve in unexpected operations;
- 2) the need to maintain the specified compensation balances in agreement with the servicing bank.

Models developed in inventory management theory and allowing the optimization of the amount of cash can be applied. Through these models, the following three situational issues can be solved:

- total amount of cash and cash equivalents
- optimal ratios of cash that should be kept in the current account and can be converted into quick-selling securities;
- a mechanism of time and space transformation of cash that must be kept in a current account and can be converted into quick-selling securities.

In world practice the methods of optimization of a cash balance are developed on the basis of the same ideas as in methods of optimization of production stocks. The most common of these are:

- 1) Baumol model;
- 2) Miller - Orr model;
- 3) Stoun model;
- 4) Simulation modeling using the Monte Carlo method<sup>9</sup>.

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<sup>5</sup> Daniel Seifert a, Ralf W. Seifert, Margarita Protopappa-Sieke. A review of trade credit literature: Opportunities for research in operations // European Journal of Operational Research. №231. - 2013. P. 245-256.

<sup>6</sup> Baweld M.D. Impact of Working Capital Management on the Profitability of Public Listed Firms in The Netherlands During the Financial Crisis // LAMBERT Academic Publishing. - 2012. P.96.

<sup>7</sup> Yong H. Kim, Joseph C. Atkins. Evaluating Investments in Accounts Receivable: A Wealth Maximizing Framework // The Journal of Finance, Vol. 33. №2 (May, 1978). P.403-412. 31.

<sup>8</sup> Zvi Lieber, Yair E. Orgler. An Integrated Model for Accounts Receivable Management // Management Science, Vol. 22. №2 (Oct, 1975). P. 212-219.

<sup>9</sup> Лукасевич И.Я. Развитие подходов к управлению запасами денежных средств на предприятии // Финансы. 2015. №12.

The essence of these models is that, current financial\*- is to determine the optimal amount of cash required for business activities. One of the most common of these is the Baumol model.

If we consider the algorithm of application of the Baumol model to the current activity, the proceeds will be invested in securities that can be quickly converted into money. When there is a need for cash for current financial and economic activities, these securities are converted into cash. The model allows the enterprise to provide liquidity in the context of ensuring the efficient use of cash by optimizing the average balance of cash assets.

Based on the data in Table 1, it can be noted that, The average quarterly value of cash was \$ 6,954.15 mln. soums. The square root of the result obtained by deducting the nominal value of cash on a quarterly basis from the average nominal value is 124870275.8 mln. soums.

**Table 1: Status of cash flow in “Navoiydonmahsulotlari” JSC in quarters 2019-2021<sup>10</sup>**

| 2019-2021 y. quarters | mln. soums | $x_i - \bar{x}$ | $(x_i - \bar{x})^2$ |
|-----------------------|------------|-----------------|---------------------|
| 2019/ IV              | 518,5      | -6435,65        | 41417590,92         |
| 2020/ I               | 3577,9     | -3376,25        | 11399064,06         |
| 2020/ II              | 3571,9     | -3382,25        | 11439615,06         |
| 2020/ III             | 10893,4    | 3939,25         | 15517690,56         |
| 2020/ IV              | 10516,3    | 3562,15         | 12688912,62         |
| 2021/ I               | 12646,9    | 5692,75         | 32407402,56         |
|                       | 6954,15    |                 | 124870275,8         |

On the basis of these data, the variance of the quarterly volume of cash flows is determined as follows.

$$\sigma^2 = \frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n} = 20811712,63$$

To determine the degree of harassment of the statistical data analyzed as a result of selective monitoring, the standard quarterly oscillation rate of the average quarter value of cash is the following value:

$$\sigma = \sqrt{\sigma^2} = 4561,98$$

So, the standard fluctuation of the value of cash in the enterprise we are analyzing in the 4th quarter of 2019 and the 1st quarter of 2021 is 4561.98 million. soums.

We assume that the costs associated with investing funds in short-term deposits and deposits are 0. As mentioned above, the average interest rate on time deposits and savings is assumed to be 14.4%.

$$(1+i)^4 - 1 = 0,14$$

$$(1+i)^4 = 1,14$$

$$1+i = 1,033$$

$$i = 0,033$$

The quarterly interest rate is 3.3%.

According to this model, the critical minimum amount of cash balance at the beginning of the year was 518.5 mln. soums. In this case, the optimal quarterly balance of cash is calculated as follows.

$$DS_{opt} = \sqrt[3]{\frac{3 * R_k * \sigma}{4 * SP_k}} + DS_{min} = \sqrt[3]{\frac{3 * 4561,98}{4 * 0,033}} + 518,5 = 40,97 + 518,5 = 559,47$$

So, the minimum critical amount of funds that must be kept in the minimum account to ensure rapid liquidity in the enterprise is 518.5 mln. UZS while the nominal amount of the optimal cash balance is predicted as 559.47 mln. soums.

In order to avoid the problem of excess liquidity and to maximize the investment of funds, the maximum amount of funds that can be in the account is 641.41 mln. soums. This nominal value is calculated as follows:

<sup>10</sup> Formed by the author on the basis of quarterly financial reports “Navoiydonmahsulotlari” JSC.

$$DS_{max} = 3 * DS_{opt} - 2 * DS_{min} = 3 * 559,47 - 2 * 518,5 = 641,41$$

Thus, the level of possible fluctuations of funds increased from 559.47 million soums to 641.41 million soums. Excess funds from this figure can be converted into short-term financial investments.

The art of managing current financial assets - is to take into account the minimum amount of cash required for current operations.

Concluding from the above, the optimal cash balance calculation model developed by M. Miller and D. Orr allows for efficient management of cash in a rapidly changing environment by setting minimum, optimal and maximum nominal values.

### 5. Conclusions and suggestions

In the current situation, the speed of turnover of current assets and their efficient use in joint-stock companies processing grain and grain products are affected by a number of factors.:

Firstly, the level of armament of fixed assets in the production activities of these enterprises and its relative technological obsolescence limit the opportunities to increase daily production capacity.

Secondly, there are problems with the payment system, there is a need for the formation of receivables in the context of the need to use commercial credit methods in the sale of goods.

Thirdly, the analysis confirms that most of the analyzed enterprises in the industry do not obey the laws of change, which is characterized by sharp fluctuations in the growth and dynamics of money supply.

Thus, the essence of the management methods proposed by the global and local operations and summarized in the diagram is clear. In general context, an increase in the turnover of receivables as a surrogate for cash has the potential to have a relatively high positive impact on the financial condition of enterprises. Therefore, in most joint stock companies, the financial services system seeks to identify factors that increase its turnover in the receivables management strategy.

Problems related to the payment system specific to the transition period economy are determined by the high share of receivables, which are an element of current assets in the current assets of business entities of the country. The main problem is overdue receivables, which is one of the main problems in the management of financial assets.

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