

An Organization's Cash Flow Management in Digital Economy

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Abstract—Modern conditions for the development of the world economy determine the formation of needs in the creation and implementation of new approaches to managing economic processes at all levels of an organization. Digital solutions that meet the modern business demands and, when used rationally, contribute to increasing the efficiency of current, investment and financial activities of organizations, are coming to the forefront in management innovations. Given the paramount role of cash flows in the stable functioning of organizations, it is their management that should be organized using digital technology. This study proposes an authors' approach to the formation and implementation of an organization's cash flow management system that takes into account management entities at different levels, the entire set of receipts and payments by type of activity, as well as an expanded list of management tools. It is proved that application of an organization's cash flow management system, proposed by the authors, contributes to the rational use of resources and increases the financial performance of the activity as a whole.

Keywords—*cash flows, inbound cash flows, outbound cash flows, management system, digital technology, digital economy.*

I. INTRODUCTION

Economic processes in world space in recent years have undergone significant changes occurring at both the macro and micro levels. The transformation of the economy is associated with the transition to a new, more complex level of organization of all the processes accompanying it. One of the trends in the development of the global economy is the widespread use of digital technology.

Digital transformation in business is associated with optimizing the functioning of various lines of business. The authors suggest distinguishing the following areas of digital transformation in business:

- technological, associated with the acquisition, installation and adaptation of modern equipment and software;
- organizational and managerial, requiring updating of all components of corporate policy.

The result of using modern digital technologies at the level of individual organizations is the intensification of internal business processes and increased levels of customer satisfaction and other contractors.

With regard to financial activities, digitalization involves the creation of a set of specific tools to ensure the effective

functioning of organizations and to achieve their strategic and operational goals.

One of the primary areas of financial activity of an organization is cash flow management, reflecting its ability to function in the status of a permanent organization. This direction sets the organization's financiers with the main task of generating a positive resulting cash flow by type of activity (by current, investment and financial activities) and, therefore, a positive cash flow balance for the organization as a whole for the reporting period. Currently, approaches to financial management of an organization using modern digital solutions to improve business performance are gaining the greatest relevance.

II. LITERATURE REVIEW

Scientists and practitioners such as E.F. Brigham, M.C. Ehrhardt, J.C. Van Horn, and Ch.F. Lee, J.E. Finnerty addressed the problems of managing the organization's cash flows in the world scientific community [1-3].

The problems of forming the receipts and payments of an organization are investigated in the works of Russian scientists: V.V. Bocharova, L.A. Burmistrovov, O.B. Veretennikova, A.I. Vostroknutovoi, V.V. Kovaleva, V.E. Leontiev, I.Ya. Lukasevich, L.N. Pavlova, G.I. Prosvetova, N.P. Radkovskoy, M.V. Romanovsky [4-12].

Issues of digital finance use in an organization's activities are paid attention to by such scholars as Qiannong Gu, Thawatchai Jitpaipoon, Jie Yang [13-14].

Issues of economy digitalization are receiving increasing attention by the world scientific community, which is associated with the high relevance of this issue.

According to the authors, the basic directions of cash flow management in the organization at present in the context of digitalization of the economy are:

- firstly, the technological direction associated with the introduction of specialized software products and software into the financial activities of an organization, which allows:
 - a) to collect all the necessary primary information about the income and payments of the organization, summarize it in the appropriate reporting forms and interpret the results;
 - b) to unify the mechanism in order to standardize it and ensure, on this basis, the reduction of costs associated with it;

- c) to reduce the time taken for the decision to manage the organization’s cash flows;
- secondly, the organizational and managerial direction, which provides for the development of established views of financial management in terms of managing the organization’s cash flows in order to maximize revenues and ensure the achievement of the optimal value of liquidity ratios.

III. MATERIALS AND METHODS

As the methodological basis of the study, the article used a set of basic methods, namely: scientific abstraction, logical, dialectic, statistical and dynamic methods, which allowed us to formulate the results and conclusions.

The information base of the study was informational and analytical materials of the Russian network publication Information Resource SPARK containing information on cash flows of operating organizations of the machinery complex of the Sverdlovsk Region of the Russian Federation in 2018.

IV. RESULTS

An organization’s cash management process should include the following steps:

- accounting of cash flows of the organization and its reflection in the relevant reporting forms;
- analysis of the initial situation of the cash flow of the organization;
- drawing up a cash flow budget;
- monitoring the implementation of planned values of parameters that are characterizing the cash flow of the organization;
- the adoption of corrective management decisions to improve the cash flow of the organization according to the results of control [15].

An organization’s cash management system is an integrated set of interconnected elements that operate within a single information and digital space and aimed at a common end result (Figure 1).

Organization’s cash management system	
Subjects of cash flow management in organizations	Organization Owners
	Organization Managers
Organization’s cash management tools	Standard estimates based on financial statements
	Additional management reporting estimates
	Digital technologies used in organization’s financial management
Organization’s cash flow management objects	Incoming cash by type of activity
	Cash payments by type of activity
Ultimate goal of managing an organization’s cash flow	Ensuring continuity of organization’s cash flow, achieving the required level of liquidity (solvency)

Fig. 1. An organization’s cash management system in digital economy. Source: compiled by the authors based on [16]

We study the successively noted elements of an organization’s cash flow management system in the context of digitalization of the economy.

- 1) The subjects of cash flow management of organization.

Owners and managers are the subjects of organization’s cash flow management, while their role in this process is different. So, the owners develop organization’s cash flow management policy, and top and middle managers implement organization’s cash flow management policy formulated by the owners in practice within the framework of their official duties.

- 2) Organization cash management tools.

The authors suggest using a special organization cash flow management mechanism, which includes three blocks of tools:

- firstly, standard indicators, estimated on the financial statements, including the published form of financial statements “Statement of cash flows”;
- secondly, additional indicators evaluated by management reporting [17], including the preparation of a cash flow budget and monitoring of its implementation;
- thirdly, specific digital technologies used by an organization in financial activities for:
 - assessment of the initial state of liquidity (solvency) of an organization;
 - implementation of permanent control over funds movement;
 - explanations of differences between the financial result and the accumulative balance;
 - finding the relationship between different types of activities of an organization;
 - identifying the relationship between the net profit of an organization and changes in the composition of its assets for the reporting period;
 - adoption on this basis of timely management decisions to adjust indicators.

The use of this mechanism should ensure the achievement of the goals of managing the income and payments of an organization.

- 3) Objects of cash flow management of the organization include receipts and payments by type of activity (core, investment and financial).

Cash flows from current operations include receipts and payments of funds that support the implementation of operating activities, on the basis of which, as a rule, the bulk of organization’s profit is generated. Therefore, this type of cash flow is the basic source of cash.

Cash flows from investment operations reflect organization’s investment activities and are associated with investments in long-term assets and their sale, as well as with income from these activities.

Cash flows from financial transactions include receipts and payments of cash associated with the formation of sources

of property of an organization, i.e. financing and servicing capital [18-19].

- 4) The ultimate goal of managing an organization's cash flows.

According to the authors, it is ensuring the continuity of the cash flow of the organization and achieving the required level of liquidity (solvency) that is the ultimate goal of managing organization's cash flows. Ensuring the achievement of the goal is possible through the implementation of effective management decisions on the cash flows of an organization.

The machinery complex of the Sverdlovsk region of the Russian Federation was selected as the research base. Machinery is a strategic sector of the national economy of the Russian Federation, a high concentration of organizations of the selected industry is observed in the Sverdlovsk region, which is an industrial region of the Russian Federation with a significant role of engineering in the creation and development of the region's economic potential.

TABLE I. CONSOLIDATED STATEMENT OF CASH FLOWS OF ORGANIZATIONS OF MACHINERY INDUSTRY IN THE SVERDLOVSK REGION OF THE RUSSIAN FEDERATION FOR 2018

Indicator	Amount, thousand roubles.
<i>Cash flows of current operations</i>	
Revenues from current operations, in total, including:	155 226 419
sales revenue	150 611 068
rental, license, commission payments, royalties	393 304
resale of financial investments revenues	1 000
Payments for current operations, in total, including:	152 901 228
payments to suppliers and contractors	114 110 420
salaries	24 461 551
payment of interest on debt obligations	3 061 289
income tax	2 073 202
Cash flow balance of current operations	2 325 191
<i>Cash flows of investment operations</i>	
Revenues from investment operations, in total, including:	2 069 569
sale of non-current assets	340 938
sale of shares of other organizations	7 585
proceeds from the repayment of loans, sale of debt securities	1 484 961
receipt of dividends, interest	65 604
Payments for investment operations, in total, including:	7 080 080
acquisition of non-current assets	5 022 457
acquisition of shares	22 896
purchase of debt securities, provision of loans	1 900 724
interest payments	36 762
Cash flow balance of investment operations	-5 010 511
<i>Cash flows of financial operations</i>	
Revenues from financial operations, in total, including:	44 883 094
obtaining loans	43 829 302
receipt of cash deposits of owners (participants)	170 025
proceeds from the issue of shares, increase in shares	2 000
proceeds from the issuance of bonds, bills and other debt securities, etc.	0
Payments for financial operations, in total, including:	41 821 157
repurchase of shares from owners	114
payment of dividends	3 901 088
repayment of bills, repayment of loans	37 029 666
Cash flow balance of financial operations	3 061 932
Cash flow for the reporting period	202 179 082
Payments for the reporting period	201 802 465
Cash flow balance for the reporting period	376 612

Note: the number of engineering organizations is 131.

This selection includes all operating organizations of the machinery industry of the Sverdlovsk region of the Russian

Federation that manufacture machines and equipment, vehicles, trailers and semi-trailers, and other vehicles and equipment.

V. CONCLUSION

According to the results of the abovementioned analytical materials on the formation of cash flows of machinery organizations in the Sverdlovsk region of the Russian Federation for 2018, the authors came to the following conclusions:

- the resulting cash flow from current activities is positive, which indicates a rational structure of payments for current operations;
- the resulting cash flow from investment activities is negative due to the high investment activity of the organizations of machinery complex of the Sverdlovsk region in 2018, namely: the volume of investments in non-current assets is several times higher than the sum of the investment operations revenues; organizations implement investment projects related to technical re-equipment and modernization;
- the positive resulting cash flow of financial activities is associated with the activation of the credit policy of organizations, in this framework the volume of loans significantly exceeds the volumes of repayment of previously taken loans for the analyzed period; this trend is associated with the specifics of the investment activities of organizations for the analyzed period;
- the cash flow balance in 2018 is positive for organizations, which demonstrates a positive result of cash flow management of the analyzed organizations.

The authors see the improvement of organization's cash flow management quality in the active implementation of digital technological solutions in the financial management process, which should lead to an increase in cash inflows and optimization of payments for all types of activities, taking into account short-term and long-term development plans of the organization.

Creation and application of modern digital tools in an organization's practical activities creates favorable information and logistic conditions for the functioning of the business, which contributes to the timely identification of risks, the prompt adoption of managerial decisions in the financial field, including cash flow management, increasing the competitiveness and investment attractiveness of an organization.

VI. DISCUSSION

Practical significance of the results of the work narrows down to practical proposals and recommendations formulated by the authors in the form of an organization's cash flow management system, which forms the methodological basis for development and implementation of an organization's cash flow management policy and helps to strengthen its liquidity (solvency) and achieve the required level of customer satisfaction and others counterparties of an organization.

Scientific significance of the study lies in completing and development of the theory of organization's financial management in terms of managing its cash flows, as well as

in development of theoretical and methodological approaches to the formation and implementation of an organization's cash flow management system in the context of digitalization of the economy.

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