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Financing Peculiarities of Production Processes in Modern Economic Conditions

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Abstract—Financing is a type for cash support. Financial resources of the enterprise, which are directed to its development, are formed at the expense of depreciation deductions, profits received from all types of economic and financial activities, additional share contributions of participants in partnerships, funds received from issuing bonds, funds mobilized through issuing and placing shares in joint-stock companies of public and non-public types, long-term bank loans and other types of credits. There are situations, when enterprises do not possess own resources for its development and especially for innovations implementation, and the attraction of borrowed funds is limited by a high-risk degree of investments in production. Forms and methods of entrepreneurship financing are very diverse. Each of the forms used has certain advantages and disadvantages. Therefore, any investment project should have a thorough assessment for the consequences of using various alternative schemes and forms of financing. The article describes the main peculiarities of organization of production processes, depending on industry-specific enterprises. The main advantages of using the credit form of financing for production processes in modern economic conditions are revealed. There is a generalized classification of loan types provided to business entities, and peculiarity analysis of loans use in financing production processes. The paper provides a generalized algorithm for crediting production processes in the Russian Federation at the present stage of development.

Keywords—financing, lending, innovation activities, industrial processes.

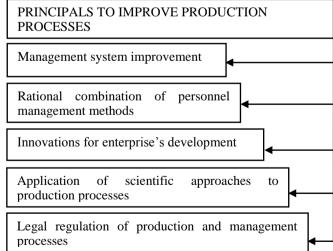
I. INTRODUCTION

Production is the central element of any enterprise, which involves the creation of the end product with specified consumer properties. In this case, production process is a set of interrelated labor, natural and other processes, the result of which is products manufacture of certain types. In turn, production processes are divided into main processes that are directly related to the transformation of labor subject into

finished products; auxiliary, the main purpose of which is to create necessary conditions to manufacture finished products; servicing during the implementation of which products are not manufactured. There are necessary services to implement main and auxiliary processes.

Production process is heterogeneous. It breaks down into many elementary technological procedures that are carried out in manufacture of finished product. As a rule, separate procedures include production stage, production operation, working methods, and labor movement. In the conditions of automated, automatic and flexible integrated production, auxiliary and servicing processes are to some extent integrated with the main ones and become an integral part of the production processes of products.

To improve production processes, it is necessary to adhere to a number of principles presented in Fig. 1.



a. Compiled by the authors based on the analysis of economic literature

Fig. 1. Principles to improve production processes.



The nature and structure of production depends on the characteristics of products, type of production, applied objects of labor and technological processes. In general, the type of production organization is a comprehensive description of characteristics of organization and the technical level of industrial production.

In this case, it is the type of production that has a significant impact on the scale of the enterprise, formation of its structure, conditions, requirements and criteria for rational production organization. Type of production is a combination of its organizational, technical and economic peculiarities. In addition, the type of production has a decisive influence on characteristics of its organization, its economic indicators, cost structure, different levels of equipment [12].

II. ANALYSIS FOR FINANCING FORMS OF PRODUCTION PROCESSES IN DIFFERENT ECONOMIC CONDITIONS

Organization effectiveness of production processes depends on the efficiency to solve financial issues. Finance reflects the state of the economy. Production process is not possible without finance. Enterprises control the real money turnover, formation of cash incomes, production and non-production costs, formation and use of fixed assets and working capital, quantity and quality of labor, economy, effective and targeted expenditure of enterprise funds. In the relationship between enterprises, financial control is exercised over the efficiency of financial operations, timeliness of mutual settlements, and observance of contractual obligations.

A. Functioning Peculiarities of Financial System in Modern Economic Conditions

Finances and their role in social reproduction is determined by the economic way of social life, and nature of state relations. In production process finance is an economic relationship associated with formation, distribution and the use of centralized and decentralized funds to ensure the conditions of expanded reproduction, material incentives for workers, tasks and functions of the state.

In the conditions of market transformations of the economy, the system of financial relations has undergone significant changes. The relations of the state with business entities have been significantly expanded. The material basis to create the state national income was the reproduction of social product. At the same time, finances are involved at the stages of GDP reproduction (production itself, distribution, exchange and consumption).

B. Industry Peculiarities of Financing Production Processes in the Russian Federation

Let us consider some industry-specific finance. Some specificity is characteristic for the sphere of capital construction enterprises. It consists of the following aspects: production cycle has a longer duration, which causes an increased need for working capital; functioning of construction organizations is carried out in various climatic zones and affect individual value of the objects being handed over, as well as the uniformity of revenue receipts. The estimated cost of facilities under construction is established on the basis of contracts with

customers and suppliers, etc. As a rule, customers are financed by the work carried out, and the work is carried out by specialized organizations.

The specifics of agricultural enterprises also has an impact on the organization of financial relations. At the same time, the main peculiarities of production processes in this industry are associated with soil and climatic conditions that determine zonal specialization of this sector of the economy, the duration production periods, differences in productivity, differentiation in cost and profitability of products. Moreover, the specifics of agriculture has an impact on the structure of fixed assets [2].

Economic and organizational peculiarities of transport enterprises also determine the content of finance. Products of transport companies have no real form. It is on transport that the production process itself is sold, which includes the transportation and movement of goods and products created in other sectors of the economy. The peculiarity of the production process of transport enterprises assumes that the means of production here do not incorporate raw materials.

Since transport is used for not only external transportation, but also for intra-enterprise transportation, internal production transport is an integral part of the manufacturing process. Inhouse transport is not an independent branch of transport production, but is an integral part of the industry in which it operates.

Structure analysis of profitable organizations by economic activity in Russia is presented in Table 1.

TABLE I. PARTICULAR WEIGHT OF PROFITABLE ORGANIZATIONS BY TYPES OF ECONOMIC ACTIVITY (IN CENTER OF THE TOTAL NUMBER)

Type of economic activity	2014	2015	2016
Agriculture	72.4	75.9	76.7
Mining	53.4	55.1	61.0
Manufacturing industries	67.5	69.4	73.9
Building	68.1	67.2	68.9
Transportation and communication	61.6	62.2	66.8
Financial activities	61.6	62.7	65.3

b. Compiled by the authors based on the analysis of economic literature

The total number of profitable enterprises for the analyzed period is within 70 %. At the same time, the most profitable enterprises by type of economic activity are enterprises of agriculture, construction, and manufacturing.

Organization effectiveness of production processes in various sectors of the economy, taking into account their specifics, is largely determined by the choice of one or another form of financing.

C. Financing Forms of Production Processes

In accordance with main sources of financing activities for business entities such forms of financing as equity financing, bank lending, leasing, other forms of financing (additional contributions (units), venture financing, franchising, forfeiting) and others are distinguished. The most generalized classification of financing forms is presented in Table 2.



TABLE II. FINANCING FORMS AND SOURSES OF PRODUCTION PROCESSES

Financing forms	Sourses of financing
Own financial	- profit
resources	- depreciation deductions;
	- funds paid by insurance companies in the form of
	compensation for losses from natural disasters,
	accidents, etc.
Borrowed financial	- bond issues;
resources	- bank loans;
	- budget loans.
Budget financing	- federal budget;
	- regional budget;
	 local budgets and extra-budgetary funds.
Leasing financing	- financial leasing;
	- operational leasing.
Venture financing	- state subsidies;
	 funds of large companies, including banks;
	- financial investments of individual citizens
	("angels").
Project financing	 capital of large financial and industrial groups;
	- financial resources of banks.
Foreign ivestments	- капитал иностранных юр. и физ. лиц.

c. Compiled by the authors based on the analysis of economic literature

Financing forms and methods of production processes are very diverse. Each of the forms of financing used has certain advantages and disadvantages. Therefore, in any investment project, a thorough assessment should be made of the consequences of using various alternative schemes and forms of financing.

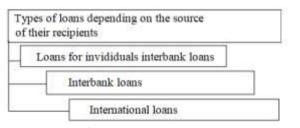
Lending is the most popular source of funds for both small and medium businesses and large enterprises. This, we will consider this source in more detail.

III. APPLICATION PECULIARITIES OF FINANCING CREDIT FORM

For current enterprise activities lending is used in the form of accounting of commercial bills, other lending of current needs, lending to export-import activities.

For investment activities, enterprises use issuance of loans refinanced at the central bank, provision of medium-term loans, issuance of long-term loans.

Several generalized types of loans can be distinguished into groups (Fig. 1) when allocating loans depending on their beneficiaries.



d. Compiled by the authors based on the analysis of economic literature

Fig. 2. Types of loans depending on their beneficiaries.

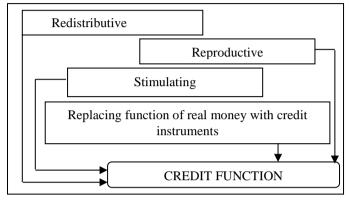
The main advantages of using the credit form of financing, according to some authors [2, 7, 12] include:

- providing the economy with necessary means of payment;

- anticipation of the borrower's own income (financing from profits), which is extremely important to stimulate stagnant economy;
- elimination of negative consequences of the disservice of money;
 - capitalization of economy.

A. Lending Functions for Production Processes

In the scientific literature over thirty credit functions have been singled out [2, 12, 13, 18]. At the same time, essence and content of loan manifest themselves in its four main functions: redistributive, reproductive, replacement functions of real and cash with credit instruments and stimulating (Fig. 3).



e. Compiled by the authors based on the analysis of economic literature

Fig. 3. Lending functions for production processes.

With the help of redistributive function, the transfer of temporarily free material and financial resources of some owners for the temporary use of others is carried out under conditions of repayment and payment. Credit redistribution occurs in three forms - monetary, commodity and rental.

The loan reproductive function is manifested in two ways. On the one hand, getting a loan by the borrower provides the necessary amount of capital for doing business. Consequently, through the loan, the commodity producer is reproduced as it is. On the other hand, as a result of granting a loan to different enterprises, conditions for goods production are reproduced: quality, cost, price, labor.

The function of replacing real money with credit instruments of circulation is as follows: real money (gold) is replaced by money signs (banknotes); then, in the process of circulation, cash banknotes in turn are replaced by credit instruments of circulation — bills of exchange, checks, and non-cash payments from the accounts of enterprises.

The stimulating function of credit is reduced to the fact that credit creates favorable conditions for production and circulation, contributes to expanded reproduction at the macro and micro levels of the economy, more rational use of the resource potential.

Bank lending is carried out in strict compliance with the principles of lending, which provide a requirement for the organization of credit process. Depending on the specific stage of crediting process, the principles of crediting must be



correlated with the specifics of each stage. For example, at the programming stage, the latter must be aligned with the business plan of enterprises; at the stage of provision - with the targeted nature of the loans; at the stage of control over the use - with the effectiveness of the work carried out by the borrower; at the stage of return - with the receipt of revenue, repayment of debt and payment of interest money.

B. Generalized Loan Classification

In economic literature there are various types of loans provided to economic entities, including the organization of effective production processes. A generalized classification of loans used, including in the organization of production processes, is presented in Table 3.

TABLE III. GENERELIZED LOAN CLASSIFICATION

Type of loan	Characteristics		
Bank loan	provided in the form of cash loans by commercial banks and other financial institutions; classified according to the term of appointment and recipients.		
Investment	long-term loan to implement a project or program at an		
loan	operating enterprise.		
Commercial	credit provided by sellers to buyers in the form of		
loan	deferred payment for goods sold.		
Affiliate	trust loan provided to reliable firms for short-term		
loan	contingencies.		
Export loan	loan provided by exporters to foreign firms and states for the purpose of purchasing goods in the creditor country.		
Compensato ry loan	a loan provided to each other by two commercial firms of different countries in their national currency for an equal amount.		
Trade loan	an agreement to defer payment when the manufacturer provides the client with a certain period to pay off the debt after receiving the products.		
Cooperative	credit provided by cooperative credit organizations,		
loan	banks.		
Secured loan	method of buying goods on credit, providing for the payment of their value and interest on the loan in parts. The purchased goods remain the property of the seller until the last part is paid, thus the goods are the collateral of the loan.		

f. Compiled by the authors based on the analysis of economic literature

C. Algorithm for Production Processes Crediting of Business Entities

Lending process by credit organizations of economic entities is carried out in several stages. The general scheme of the lending process for production processes is presented in Fig. 4.

IV. DISCUSSION

So, credit form of financing production processes has several advantages in comparison with other sources.

Firstly, the loan plays an important role in the selfregulation of the amount of funds necessary to conduct economic activity. Thanks to the loan, enterprises have the necessary amount of money to ensure normal operation at any time.

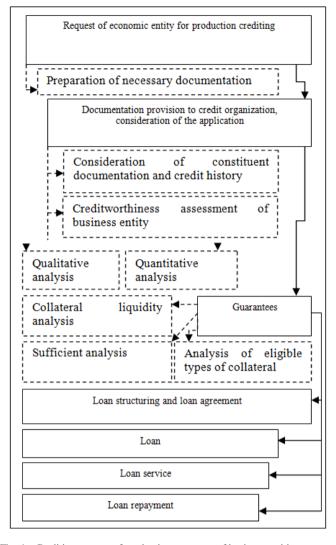


Fig. 4. Crediting process of production processes of business entities.

Secondly, the role of credit is important to replenish working capital, the need for which each enterprise is not stable, varies depending on the working conditions: market, natural, climatic, political, etc.

Thirdly, the role of credit is great for the reproduction of fixed assets. Using credit, the company can improve, increase production much faster than in its absence.

Fourthly, the role of credit is important in regulating the liquidity of the banking system, and creating an effective mechanism to finance public spending.

Thus, the issue of financing production processes in economic literature is sufficiently studied. Many researchers pay considerable attention to analyzing various aspects of financing production processes [2, 12, 13, 18].

At the same time, there are many unresolved problems in this area, for example, organizational issues to provide credit funds by financial organizations (bearing in mind the long time



to consider loan applications, interest rates, methods for analyzing the creditworthiness of borrowers, significant differences in the issues of large and medium loans. and small business, etc.).

V. CONCLUSION

Thus, each enterprise faces the problem to provide its activities with cash, effective solution of which is constantly hampered by both the environmental impact on the enterprise and its cash flows and the imbalance of cash inflows and outflows.

At the same time, the shortage of funds entails many negative consequences: from the delay of the production cycle to the initiation of the bankruptcy procedure.

In this regard, the article analyzes various aspects of lending as one of the most common sources of financing the activities of business entities in modern economic conditions.

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References

- [1] A. Agrawal, C. Catalini, A. Goldfarb, H. Luo, "Slack time and innovation", Organization Science, vol. 29(6), pp. 1056-1073, 2019.
- [2] D.A. Antipin, V.M.Pakholchenko and O.V. Tauryanskaya, "Banking supervision: current trends and prospects", Proceedings of the International Conference on Trends of Technologies and Innovations in Economic and Social Studies, vol. 1, 2017.
- [3] M. Bacior, "Technological Innovation in the Context of Company Operation Risk", Journal of Konbin, vol. 33, pp. 251-260, 2015.
- [4] V. Espinoza-Loayza, E.-E. Salas-Tenesaca, A. Samaniego-Namicela, "Banking industry innovation", Studies in Systems, Decision and Control, vol.154, pp. 463-476, 2019.
- [5] E.M. Grochowski, J. Warschat, R. Dasher, "The impact of collaboration with big companies on entrepreneurial technology innovation", Conference on Management of Engineering and Technology, pp. 410-419, 2016.

- [6] O. Guillaume, N. Lot, "Risk management and social innovation: The example of the outage organization in a high risk industry", Risk, Reliability and Safety: Innovating Theory and Practice, p. 77, 2016.
- [7] A. Inshakova, A. Goncharov, O. Kazachenok, "Legal regulation of the syndicated lending: Banking innovations in contemporary Russia", Espacios, vol. 39(28), 2018.
- [8] T. Lager, K. Tano, N. Anastasijevic, "Open innovation and open production: A case of a technology supplier/user collaboration in the process industries", International Journal of Innovation Management, vol. 19(2), 2015.
- [9] K. Kluza, "Financial innovation in local governments as a response to the deterioration of their risk profile and legislative changes: The case of Poland", Innovation Journal, vol. 21, pp. 21-25, 2016.
- [10] Q. Liu, X. Zou, "Research on trust mechanism of cooperation innovation with big data processing based on blockchain", Eurasip Journal on Wireless Communications and Networking, vol. 26, 2019.
- [11] T.S.Lopes, M.Casson, G. Jones, "Organizational innovation in the multinational enterprise: Internalization theory and business history", Journal of International Business Studies, pp. 1-21, 2018.
- [12] M. Mukherjee, A. Singh, A. Žaldokas, "Do corporate taxes hinder innovation?" Journal of Financial Economics, vol. 124, pp. 195-221 2017
- [13] A.S. Nechaev, D.V. Ognev, O.V. Antipina, "Analysis of Risk Management in Innovation Activity Process", International Conference on Quality Management, Transport and Information Security, Information Technologies, pp. 548-551, 2017.
- [14] A.S. Nechaev, S.V. Zakharov, A.O. Troshina, "Innovation Risk Minimization and Neutralization Methods", International Conference on Quality Management, Transport and Information Security, Information Technologies, pp. 552-555, 2017.
- [15] G.A. Tabacco, "Does competition spur innovation? Evidence from labor productivity data for the banking industry", Economics Letters, vol. 132, pp. 45-47, 2015.
- [16] M. Tirandazian, "The application of information technology in project management and its role in increasing production, innovation and process advancement", Advances in Environmental Biology, vol. 8(11), pp. 189-194, 2014.
- [17] D. Teece, M. Peteraf, S. Leih, "Dynamic capabilities and organizational agility: risk, uncertainty, and strategy in the innovation economy", California Management Review, vol. 58, pp. 13-35, 2016.
- [18] S.R. Trivedi, "Banking Innovations and New Income Streams: Impact on Banks' Performance", Vikalpa, vol. 40(1), pp. 28-41, 2015.