

Improvement of Methods and Forms of Innovative Activity Investment

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Abstract—The article analyzes the ways and forms of investing in innovation, taking into account the expansion of opportunities for attracting private and foreign capital, the state of innovation activities of Russian enterprises by studying the dynamics and structure of the volume of innovative goods, works and services, as well as analyzing costs by source of funding. Further, the reasons that impede the development of innovation activities are identified, in accordance with which the main directions for solving them are highlighted. The research object in the article is investment forms that make it possible to apply leasing to the full using the resources of an interstate financial and credit institution and reveal the countries being most attractive for leasing transactions. The problem that the author of this article is trying to solve is the lack of own funds of enterprises for the implementation of innovative activities. This article discusses the ways and forms of financing innovation. It has been found that the most common method of financing for enterprises is leasing. However, it has many shortcomings that impede the development of leasing in Russia at full capacity, as a way of financing innovation.

Keywords—*innovation activity, innovation project, enterprises, innovations, financing, risks, leasing, investment*

I. INTRODUCTION

Current stage of development of a socially oriented market economy in Russia requires significant investments. Meanwhile, the country still lacks a productive investment mechanism that helps stimulate growth of investment scales and improvement of quality characteristics, not to mention all the institutions serving the investment process. It should be noted that solving the problem of converting all types of savings into investments is of great importance for the current stage of the domestic economy development; the implementation of investments will allow the country to become a highly developed state of innovation.

Modern position of the economy in Russia is shaped largely by low investment activity of enterprises. Firstly, it is substantially determined by the insignificance of own funds of enterprises as the main source of innovation. Secondly, it can be stated that the cost of innovations is usually quite high, and the conditions for their implementation are not sufficiently favorable. For example, the lack of government support mechanisms for innovation, and those that exist, are not sufficiently substantiated from both economic and legal points of view, which make them low effective. The participation of state infrastructure (technology parks, innovation and

technology centers, innovation and industrial complexes) intended for the support innovation, on the one hand, is small in scale, and on the other hand, is often characterized by unjustified duplication. Indirect regulation, which could stimulate innovation, is fragmentary and does not link the interests of all its key participants [1]. This emphasizes the relevance of the research for innovative development of Russian enterprises and determines the feasibility of its development [2].

II. RESEARCH QUESTIONS

Innovative enterprises require significant investments. Investment and innovation are inextricably linked to each other in the current production process, regardless of the business size. Capital infusion into innovations is aimed at introducing new technological solutions into activities of companies and enterprises. But it is also necessary to understand that no matter how interesting the project is from a scientific point of view or from the point of production development, its profitability and future profit always comes first. Unfortunately, the structure of investments over the past decade is quite homogeneous and has a significant raw material component. Financing of innovation activities in developed countries is distributed between public and private sources, this distribution is typical for many European countries [3].

The current state of innovation and investment climate in Russia lags behind developed countries. Today, the decreased volumes of state financing, lack of own funds of enterprises and lack of strategic thinking among their managers are not compensated by the inflow of private capital [4].

Develop an algorithm for improving methods and forms of investment in innovation, taking into consideration the expansion of opportunities for attracting private and foreign capital, which use will allow leasing to be fully applied through the use of resources of Interstate Finance and Credit Institute, as a result of an increase in the volume of leasing transactions in countries (EAEU, BRICS, CIS) being most attractive when applying the leasing form of financing carried out on a returnable basis [5].

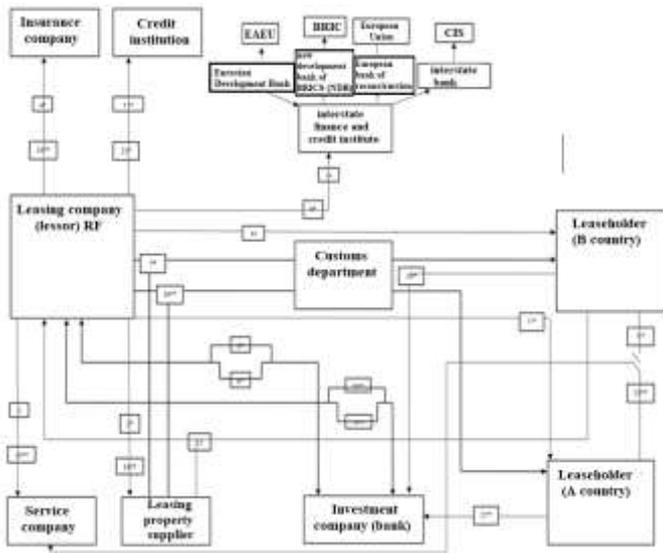


Fig. 1. Algorithm for improving ways and forms of investment in innovation, taking into consideration the expansion of opportunities to attract private and foreign capital

This scheme tracks step-by-step action of investment forms, where: the conclusion of a credit agreement by a leasing company with one of the interstate financial and credit institutions for the acquisition of leasing property; conclusion of a purchase-and-sale agreement by a leasing company with a supplier of leasing property for the purchase of leasing property; conclusion of an agreement with a service company for servicing the supplied leasing property to the leaseholder for the period of a leasing agreement; conclusion of an insurance agreement by a leasing company with an insurance company for the period of operation of leasing property; conclusion of an international leaseback agreement with the leaseholder of A country for the supply of leasing property subject to the terms of DDP delivery; conclusion of an agreement on the acquisition of a leasing contract of a leasing company with an investment company; delivery of leasing property to the leaseholder under an international return leasing agreement on DDP conditions; the sale of a leasing contract by the leasing company to an investment company with the transfer of funds to the lessor; return of funds received for the purchase of leasing property; transfer of leasing payments by the leaseholder of A country to an investment company under an international leaseback agreement; maintenance of leasing property by the service company under an international leaseback agreement; return of leasing property by the leaseholder of A country under the international return agreement of a leasing company with the subsequent modernization of the supplier's production facilities; conclusion of a credit agreement by a leasing company with a credit institution with modernization conditions for secondary transfer to leasing; conclusion of a contract for acquisition and modernization of leasing property for secondary transfer to leasing by a leasing company with a supplier of leasing property; conclusion of an agreement with a service company for maintenance of upgraded leasing property; conclusion of an insurance contract with an insurance company by a leasing company; conclusion of an international financial leasing contract by a leasing company with a leaseholder of B country for the supply of upgraded leasing property; conclusion

of an agreement on the acquisition of a leasing contract with an investment company by a leasing company; delivery of leasing property to a leaseholder under an international financial leasing agreement on DDP conditions; sale of a leasing contract by the leasing company to an investment company with the transfer of funds to the lessor; return of funds received for the purchase of leasing property; transfer of leasing payments to an investment company by the leaseholder of B country under an international financial leasing agreement; maintenance of leasing property by the service company under an international financial leasing contract [6].

Next, we turn to the calculating by the method ranking weighting factor to reflect the significance of EAEU, BRICS, and CIS countries and to identify the importance (preference) of countries for cooperation on leasing transactions [7].

TABLE I. WEIGHTING FACTOR CALCULATION BY RANKING METHOD

indicators	BRICS, EAEU, CIS countries												
	Russia ¹	Belarus ²	Kazakhstan ³	Kirghizia ⁴	Armenia ⁵	Brazil ⁶	India ⁷	China ⁸	Republic of South Africa ¹⁰	Azerbaijan ¹¹	Tadjikistan ¹²	Uzbekistan ¹²	$\sum x_i$
α	7.5	10.5	9.75	5	6	6.75	6	4.35	6.75	13	14.75	14	104.35
β	2.5	3.5	3.25	1.6	2	2.25	2	1.45	2.25	4.3	4.92	4.6	34.62
γ	3	4.2	3.9	2	2.4	2.7	2.4	1.74	2.7	5.2	5.9	5.6	41.74
δ	2.2	4.5	6.8	3.2	2.7	2.86	5.07	1.5	4.4	5.5	6.7	14.4	59.83
σ	18	20	12	12	20	17	18	17	15	18	18	20	205.0
ω	7.5	7.5	7.5	7.5	7.5	0	3	12	28.74	0.5	5	10	96.74
κ	0.006	0	4	0	0	3	0	0	0	0	0	0	7.01
λ	22	0	0	0.5	0.065	0	28	12	0	0.02	0.5	0	43.29
ν	6.666	10	15	20	10	20	0	10	20	25	7	8	151.67

Where indicators are: α – key loan rate; β – interest rate on leasing payments; γ – property insurance rate; δ – inflation rate; σ – VAT rate; ω – import customs duty rate; κ – vehicle tax rate; λ – property tax rate; ϕ – excise rate; ν – depreciation percentage.

With preferred arrangement according to the data, the indicators are defined as the sum of each indicator of all countries of BRICS, EAEU, CIS:

$$a = \sum x_i, a = \sum x_i = 1+2+3+4+...+i$$

where $a = \sum x_i$ – total value of each country indicator.

For further comparison of indicators, we calculate standardized indicators using the formula:

$$y_i = \frac{x_i}{\sum x_i}$$

where y_i – standardized indicator; x_i – indicator value α, \dots ; $\sum x_i$ – total value of each country indicator.

To calculate deviations from the standardized indicator, the formula is used:

$$C_i = 1 - y_i$$

where C_i – deviations from standardized indicator; y_i – standardized indicator.

We build the obtained values of deviations from the standardized indicator in the square: C_i^2 .

To determine the rank, we calculate the sum and the rating of squares by the formulas:

$$\sum C_i^2 = \alpha + \beta + \gamma$$

where $\sum C_i^2$ – sum of squares of deviations from standardized indicator.

$$R = \sqrt{\sum C_i^2}$$

where R – rating deviations from standardized indicator; $\sum C_i^2$ sum of squares of deviations from standardized indicator.

TABLE II. RANKING VALUES DISTRIBUTION OF COUNTRIES

Rank	Country	Rating
1	Kazakhstan	2.64
2	Uzbekistan	2.71
3	India	2.72
4	Brazil	2.73
5	RSA	2.75
6	Tajikistan	2.76
7	Azerbaijan	2.76
8	China	2.78
9	Belarus	2.80
10	Russia	2.83
11	Kirghizia	2.84
12	Armenia	2.85

According to the calculation of the weighting factor by the ranking method (Table II), it allowed determining the rank of each country by its attraction in the field of a leasing transaction, namely, determining countries that are more significant for making financial leases of large equipment. Thus, we see that Kazakhstan is more attractive by calculation from all indicators of countries, weighting factor for leasing transactions, and conditions for the supply of fixed assets to this country are more acceptable, the least attractive country is Armenia [8].

We present this calculation in Fig. 2, where it is clearly seen that the country of Kazakhstan occupies the first place, that is, based on the calculations the first rank is a weighty significant country, which is able to expand the possibilities of improving supplies and attracting partners in leasing transactions. And the country of Armenia occupies 12th place in the distribution of ranks by weight that is, it is necessary to introduce an indicator in this country that could affect the more favorable conditions for the equipment supply into leasing.

To study the goal, we consider in detail why we need to determine the most attractive country for leasing supplies and what will it give in the future. This study will allow creating a new competitive advantage for Russian-made products and will lead to the expediency of cooperation between the leasing company and the enterprise in the supply of products of the Russian Federation to foreign countries. Since, despite the existing financial and technical problems, foreign suppliers of industrial equipment and various types of equipment take a considerable interest in the Russian market.

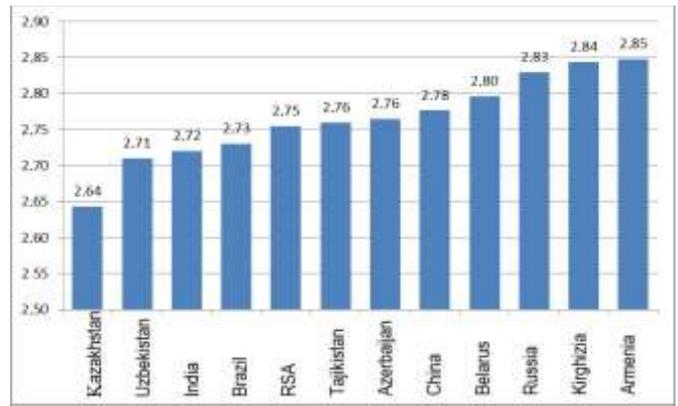


Fig. 2 Distribution graph of ranking values of countries significance

The main activity of such companies will be the export of equipment and machinery to foreign countries. To minimize the risks in such transactions, it is advisable to apply modern progressive financial technologies, in general, and leasing, in particular. When using leasing, Russian enterprises receive a number of advantages that cannot arise with other forms of financing the modernization of production. Along with the fact that leasing is often practically the only available financing tool with an insufficient amount of funds for purchasing equipment, it provides a number of “free” benefits in the interests of all leasing participants, which makes it more attractive and affordable [9].

To improve methods and forms of investment in innovation, regarding the expansion of opportunities for attracting private and foreign capital, various methods can be used to determine the attractiveness of foreign countries, increasing the volume of leasing transactions and upgrading leasing assets carried out on a returnable basis: ranking method, scaling method and calculation of the total assessment, cluster approach and others [10].

Each of the presented methods for determining the attractiveness of EAEU, BRICS, and CIS countries has its own advantages and disadvantages. Each of the methods can be used at various stages of acquisition, export of leasing property and its modernization [11].

For instance, the ranking method, the assignment of ranks to BRICS, EAEU, and CIS countries can be implemented quite quickly by their economic factors and indicators. But not all countries have certain indicators to calculate them in our study; therefore the ranking method makes it possible to calculate a more significant country even based on some missing factors in the countries. This allowed studying the indicators of BRICS, CIS, EAEU countries and reflecting the more preferable country for cooperation on leasing transactions [12].

III. RESULTS

Thus, foreign countries and Russia, as well as state authorities do not interfere with the relevance of improving methods and forms of investment in innovation, with considering the expansion of opportunities for attracting private and foreign capital [13].

Based on the obtained data, we see that BRICS, CIS, EAEC countries for export are presented in expanded form; at the expense of which, when delivering leasing property, the volume of leasing transactions to BRICS, CIS and EAEU countries will increase with the use of international leaseback with further modernization of leasing property at production facilities of the supplier, which will eliminate the causes preventing the development of innovation [14].

IV. CONCLUSION

In conclusion, it should be noted that improving methods and forms of investing in innovation, considering the expansion of opportunities to attract private and foreign capital, simplifies the complexity of innovation in modern conditions, both in the composition of participants and the content of their problems, tasks, and in methods of attracting investment funds for innovation projects implementation. Innovation activity implies deep interaction and cooperation between various Russian and foreign companies, credit organizations, funds, and agencies [15].

One of the important components of the strategy of any active enterprise is the determination of effective ways and forms of investing in the innovation activity of an enterprise. The financial stability of companies, level of risk, increase in the volume of transactions, and success of the innovation idea as a whole depend on how competently the form of financing is chosen [16].

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