Management of Investment Attractiveness of Economic Agents as a Factor of Innovative Development of the Region (On the Example of the Tyumen Region)

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Abstract. The problem of innovative development of regions in Russia is currently relevant to the unfavorable economic and political situation of the country in the world.

The object of the article research is the management system of investment potential of economic agents of the Tyumen region. The subject of the research is the influence of the level of investment attractiveness of economic agents on the innovative development of the Tyumen region. The aim of the study is to develop an algorithm for managing the investment attractiveness of economic agents, contributing to the innovative development of the Tyumen region. Hypotheses of the study-the assumption that there is a direct relationship between increase in the investment potential of economic agents and innovative development of the Tyumen region. To carry out the research, such methods as factor analysis of the level of development of socio-economic and innovative development of the Tyumen region, systematic, integrated and process approaches to assessing the investment attractiveness of economic agents in the region, as well as consistent detail were used.

The result of the study is the development of an algorithm for managing the investment attractiveness of economic agents of the Tyumen region as a factor of innovative development of the region.

1. Introduction

In 2017, the world economic forum assessed the level of global competitiveness of 137 countries on such indicators as the quality of institutions, infrastructure, macroeconomic stability, health, primary education, higher education and training, the efficiency of the market of goods and services, the efficiency of the labor market, the development of the financial market, the level of technological development, the size of the domestic market, the competitiveness of companies and innovative potential. Russia, having the same rating with such countries as Malta, Poland, India and Portugal, took the 38th place [17].

Currently, the global economic situation is such that the orientation of any country only on the available raw material potential is insufficient for its competitiveness and economic growth. In the next ten years, the global economy will tend to increase the impact of innovation processes in all sectors of manufacturing on economic development, as well as there will be a rapid growth of markets for innovative high-tech products.

The raw material Foundation on which all the calculations of the socio-economic development of the Russian regions have been based for decades has proved insufficient in recent years for firm confidence in the future. Without radical modernization of the entire real sector of the country's economy, the very fact of Russia's presence in the rank of highly developed powers is under question.

Inefficient use of innovations in the activities of economic agents shows a low share of innovative products to all industrial products in many industries of the Russian Federation. Over the past ten years, this indicator has been around 5% against the threshold of 15% proposed by the center for financial and banking studies of Iran. The need for innovative development of the country's regions has matured with great force. Without a doubt, this need is also the most important task of the economic security of the Russian Federation.

In this regard, the problem of innovative development of the Tyumen region is relevant, as about 50% of the gross regional product is production of hydrocarbon raw materials, which indicates the raw material orientation of the regional economy.

2. The initial state of the problem

According to the rating of innovative development of the subjects of the Russian Federation, compiled by the higher school of Economics, the Tyumen region in 2015 took 23rd place in the country (compared to 2014 there was a deterioration in the rank of 2 positions) [15]. The calculation of the Russian regional innovation index took into account such indicators as: socio-economic conditions of innovation, scientific and technical potential, innovation and the quality of innovation policy.

The share of organizations engaged in technological, and marketing innovations in the total number of economic actors in the Tyumen region in 2016 was 9.2% (in 2010-9.8%). In Russia, this figure was 8.4%, in the Ural Federal district - 8.2%.

The number of developed advanced production technologies in the region in 2016 amounted to 34 units, or 13.4% of the total number of developments of this type throughout the Urals Federal district.

At the same time, the share of innovative goods (work performed, services rendered) in the total volume of goods shipped in the Tyumen region in 2016 was 3.3% against 8.5% in the whole of the Russian Federation and 4.4% in the Ural Federal district [13].

All these statistics show low innovative development of the region.

Innovative development of the Tyumen region is impossible without investment in its economic actors. The index of physical volume of investments in fixed assets in 2016, compared with the previous period, was 115.4% in the region (in the Ural Federal district – 108.8% and the Russian Federation – 99.1%).

Difficulties in the process of technological renewal in the organizations of the Tyumen region are associated with uneven distribution of investments in fixed assets by economic activity: the majority of investments in fixed assets is carried out in industries related to production of hydrocarbon raw materials (more than 73%).

The inflow of investments into the enterprise gives it additional competitive advantages. Any Manager will find a lot of reasons to attract investment and the same number of ways to invest. As a rule, this is the implementation of various production projects of an economic agent, which may include: projects for the development of new products, improvement of old ones; strengthening the promotion of enterprise products, expansion of production in connection with entering new markets (capture of new markets); the introduction of more advanced technologies to reduce costs; modernization of old equipment and acquisition of the new one, etc.

However, for an investor, investing carries a certain risk. One of the approaches aimed at reducing this risk is to manage the investment attractiveness of the economic agent. That is why to solve the problem of investment attractiveness of economic agents is relevant to develop an algorithm for its management process.

The course for the introduction of innovative industrial development institutions was announced in the Tyumen region a decade ago. To solve the problem of creating in the region in 2008 (in Tyumen) of the West Siberian innovation center of oil and gas (technology Park of innovative type) was

released and reconstructed building of the former regional Palace of youth (house of culture) "Geolog" to accommodate it business incubator, business center, Congress hall and business school of innovative education.

Unfortunately, no significant effect has been achieved so far. The number of innovative projects that have reached the industrial implementation in the ten years (since the end of 2008) of Technopark functioning is great, we can definitely say about three developments: "intellectual well", which allows to work with hard-to-recover reserves; oil-absorbing boon, used to destroy water pollution with oil products; waterproofing materials, bentonite mats. The total number of residents for all years of work has not reached hundreds (as of 01.04.2018– 42 small innovative firms).

According to the regional Governmental data, summarized in mid - 2018, during the period of the Technopark residents received more than 65 patents, introduced more than 120 new technologies, the total revenue of residents - small and medium – sized businesses-amounted to about 5.7 billion rubles, the amount of tax deductions-more than 680 million rubles . Taking into account the costs of creation and maintenance of the Technopark since its creation (more than 8 billion rubles), the result is very modest.

It seems that the main reason for the situation created in the Tyumen region in the field of stimulation of innovative projects and innovative activities, was a well-thought-out approach to the planning, development and implementation of activities to stimulate scientific and industrial innovation. The consequence is the adoption at the launch of a set of measures to support innovation activity in the field of a number of unprocessed solutions, which eventually became the root cause of the extremely low efficiency of regional innovation policy.

A key factor of success, which led to a qualitative jump in production and innovation activity in the domestic leading regions, was the sharp stimulation of industrial growth through the creation of industrial parks.

Therefore, the conclusion is logical: one of the main mistakes of the last decade in the management of innovative development of the Tyumen region was the actual refusal to create an industrial Park, which in the future could become the core of the industrial cluster in the Tyumen city agglomeration (it means the actual Tyumen and the surrounding areas (settlements) of the Tyumen region).

In the Russian Federation, the experience of Kaluga region [9, 15] and Tatarstan [4, 7] shows that the key factor in the success of the innovation policy of the Federation is the launch of the region's reindustrialization processes by creating a system of industrial parks [17] capable of becoming the cores of geographical industrial clusters(from 2013 to 2017, the number of industrial parks in Russia has more than doubled – from 80 to 166).

The preferred place of their location is the space along the Trans-Siberian railway in the vicinity of Tyumen for the maximum use of human innovative potential of the regional center and the advantages of geographical location.

Re-creation of key sectors of the regional industry will form a real demand for innovation and make innovation activity in the regional economy potentially profitable. Technopark as a research and innovation platform [3, 4, 8] will be able to earn only three to five years after the launch of industrial parks. It should be borne in mind that innovative enterprises create fewer jobs than, for example, "classical" engineering. Thus, without the revival of a full-fledged industrial sector, it is impossible to achieve the strategic goals of regional development.

Let's define the key prerequisites for creating a successful cluster on the territory of the subject:

1. The key role of the governor of the region and his closest team in carrying out the cluster policy on the regional territory. Experienced management is the key to a successful transition to an innovative regional economy.

2. Developed competitive advantages of the territory of the region : a favorable geographical position, easier access to raw materials, availability of specialized human capital, the availability of suppliers of components and related services, the availability of the necessary modern infrastructure, specialized educational institutions and educational programs, etc.

3. Maximum concentration of competitive knowledge-intensive enterprises in the region. The basic condition for the creation of a regional cluster is the presence of competitive high-tech enterprises. However, the concentration of employment in backward (depressed) enterprises can only be a prerequisite for the creation and development of a cluster, but not a criterion for the presence of a cluster as such.

4. The principle of the triple helix ("TripleHelix") of the cluster members, which implies a qualitative and balanced composition of the public, private and educational sectors. This principle contributes to the development of synergy and partnership within the cluster.

5. Formation of high-quality horizontal links between the participants of the cluster project. Such relations have different nature, including: relations between enterprises-cluster cores and suppliers, between equipment suppliers and representatives of specialized services, communication between companies, educational institutions and research institutes in the framework of cooperation in the implementation of joint R & d and educational programs, etc.

6. Geographical proximity of the enterprises included in the cluster. The main participants of the cluster should be in close proximity to each other to organize effective interaction.

After the formation of the industrial Park, it is necessary to immediately move to measures in the field of management organization and personnel policy[4, 16]. According to the experience of Kaluga region, it is necessary to create two parallel structures that solve the problem of attracting investment and regional development   in the framework of a single regional development strategy. These structures can be the Department of strategic development and investment, on the one hand, and the regional development Agency, on the other. Each structure must have at least one industrial Park in its subordination. The leadership of the region will assess the activities of managers by the number of running enterprises and created jobs. It is particularly important to give the established structures the appropriate authority in the field of land relations and infrastructure agreements.

A long-overdue measure is the development and adoption of a strategy for the development of the Tyumen region (and realistic and focused on practical application). A clearly structured Strategy is required as a plan to transform the economic, production and social system of the region, linked to results-based budgeting, with its specific goals and ways to achieve them. This Strategy should form the basis for the development of follow-up action programmes.

The policy of formation of personnel potential of the region and involvement of qualified labor force [12, 16] in the creation of industrial parks also requires changes. It is in addressing this issue that the Tyumen region loses significantly to the subjects of the Russian Federation – the leaders of innovative growth.

It should solve two problems:

- it is necessary to update the personnel of the authorities and management both at the regional (with the possible invitation of specialists from other regions, from the University and scientific environment) and at the municipal levels;

 - it is necessary to solve the problem of training and retraining of qualified personnel for the regional industry, taking into account the priorities of its development in accordance with the policy of formation of regional industrial clusters (regional clusters).

Work on the transformation of regional economic policy, taking into account the need for reindustrialization of the region should be intensified right now. At the same time, it is necessary to move away from the practice of point support for investors to massive efforts to rebuild the industrial system. Delays in the strategic paradigm of regional economic development, given the current situation in the country and abroad, in the future may cost the Tyumen region very expensive. The optimal scenario for the Tyumen region is the creation of two or three industrial parks with an area of 300 hectares located along the Trans-Siberian railway.

3. Literature review

The development of an algorithm for managing the investment attractiveness of economic agents to improve the innovative development of the region implies a preliminary assessment of the level of investment attractiveness of the enterprise.

In the scientific literature there is no generally accepted approach to assessing the investment attractiveness of economic agents. Analysis of the economic literature on the problem showed that the vast majority of authors use the method of quantitative estimates of financial results of economic agents [7, 15, 17]. According to the final financial indicators (profit, profitability, etc.), the efficiency of the entire enterprise, and, consequently, its investment attractiveness, is estimated.

All methods proposed in the literature to assess the investment attractiveness of enterprises can be divided into three approaches: cost, income and comparative [3, 4, 8, 9].

The authors compared the above approaches to assessing the investment attractiveness of enterprises on a number of parameters.

1.The base of comparison of enterprises Market or other value of assets net of a market value of liabilities.

2.Expected income from the company and its subsequent transformation into value at the valuation date.

3.The value of the enterprise in terms of the price at which the assets of the enterprise (or the entire property complex) can be sold on the market.

4.Determination and interpretation of the level of investment attractiveness no businesses.

5.Complexity of data accounting in the integral indicator of investment attractiveness.

Therefore, the calculation of the integral indicator of investment attractiveness of economic agents in General can be carried out as follows:

$$K_{ip} = \sum K_i \div 6 = (K_1 + K_2 + K_3 + K_4 + K_5 + K_6) \div 6 \qquad (1)$$

where K_1 - assessment of the level of a subgroup of indicators of analysis of sources of funds of the enterprise;

K_2 -; assessment of the level of the subgroup of indicators of the analysis of the enterprise property

K_3 - assessment of the level of a subgroup of indicators for the analysis of financial stability of the enterprise;

K_4 - assessment of the level of the subgroup of indicators of return on equity analysis;

K_5 - assessment of the level of a subgroup of indicators of the enterprise liquidity analysis;

K_6 -. assessment of the level of a subgroup of indicators of business activity analysis

$$K_i = \frac{\sum O_{cp.i}}{n} \qquad (2)$$

where $O_{cp.}$ - the arithmetic mean of the estimates of indicators of a certain subgroup, point;

n - the number of indicators of this subgroup.

The result of the first stage of the algorithm should be the establishment of the level of investment attractiveness of the enterprise.

Due to the fact that the evaluation of the investment attractiveness of an economic agent is made in points from 0 to 3, the authors have identified three intervals of investment attractiveness and the corresponding type of investment attractiveness of an economic agent:

1. (0;1) – low investment attractiveness of the economic agent, this means that most indicators are not satisfactory, or satisfactory, performance in the dynamics and do not correspond to normative values.

2. (1;2) – the optimal investment attractiveness of an economic agent, which means that most indicators have positive or satisfactory estimates, the values of indicators improve over time.

3. (2;3) – this means that all indicators have positive estimates, correspond to normative values and improve in dynamics.

Even at high and optimal levels of investment attractiveness of an economic agent, the authors recommend to make a forecast of its dynamics using generally accepted methods in the economy. If there is no tendency to decrease the integral index, the analysis can be postponed until the period . With a low level of investment attractiveness of an economic agent or a trend of its decline, it is necessary to move to the next stage.

Stage 2. If an economic agent has low investment attractiveness, it is necessary to determine the main reasons for deviations of the actual results of the controlled indicators from the established standards and develop management solutions that will provide the necessary level of investment attractiveness of the economic agent.

The principal system of actions of the heads of economic agents in this case consists of three algorithms:

- "don't do anything." This form of response is provided in those cases where the size of the negative deviations significantly lower than the "critical" criteria;

- "correct deviation." Such a system of actions provides for the procedure for the search and implementation of reserves to ensure the implementation of regulatory indicators. At the same time, reserves are considered in the context of various aspects of investment activities and individual investment projects. As such opportunities, the expediency of the introduction of an enhanced mode of economy, the use of the system of internal reserves and others can be considered;

- "change the system of planned or normative indicators". Such a system of action is taken when the possibilities of normalizing certain aspects of investment activities are limited or non-existent.

Making decisions on the implementation of the developed measures aimed at achieving the economic entity investment attractiveness and common goals is the final action of the second stage of the management process. This means that the management of the company considers the developed measures to be effective, contributing to the achievement of the desired result or condition.

Stage 3. Implementation of management decisions to ensure the investment attractiveness of the economic agent. It is based on the actual redistribution of its internal resources, aimed at achieving an effective balance in their use. When reallocating resources, it is important to take into account the importance of each parameter in the formation of the investment attractiveness of the economic agent, as well as changes in the external environment, which will help to predict the negative consequences of their impact on the investment attractiveness and develop measures to compensate them.

The final step of the third stage is to assess the effectiveness of the implementation of management decisions and the control re-evaluation of the investment attractiveness of the economic agent.

The algorithm developed by the author has advantages:

1) allows to assess the investment attractiveness of economic agents comprehensively and take into account all its factors;

2) it can be used in any industry, as it involves taking into account the industry features of the functioning of the economic agent by entering additional indicators and accompanying them with the appropriate weight coefficients;

3) takes into account the dynamic investment attractiveness of economic agents.

Thus, the innovative development of the Tyumen region is proposed to be carried out by managing the investment attractiveness of its economic agents.

4. Conclusions

The proposed algorithm provides for the development and implementation of management decisions to improve the investment attractiveness of economic agents, the approbation of which was made at the enterprises of the Tyumen region. The study showed that the innovative development of the Tyumen region is at a low level. However, it can be improved by effectively managing the investment

attractiveness of the region's economic agents. Thus, the proposed algorithm confirmed the hypothesis of the study that there is a direct relationship of increasing the investment attractiveness of economic agents and innovative development of the Tyumen region.

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