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Investment Attractiveness Assessment Mechanism of the Fishery Industry

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Abstract

The environmental consequence of the fishing industry involves issues such as the availability of fish, overfishing, fisheries, fisheries management, and industrial fishing on other elements of the environment, such as by-catch. Those issues are part of marine conservation and are addressed in fisheries science programs. Investment activity is diverse in terms of impact on various aspects of social product development. It is important to ensure the unity of interests of entrepreneurs, business owners, the state and the population. Entrepreneurs and the state are interested in receiving income from the investment of funds and the development of production, while the population is interested, first of all, in the availability of jobs with decent wages and working conditions that provide the necessary level of well-being. The influence of production dynamics on the level of investment activity can be represented as follows: the volume of investments decreases as the result of accumulated funds amount decrease, which, in turn, become less with production volume reduction. The shortage of investment funds does not allow to stop the decline in production, which results in an even greater decrease of accumulated funds. Thus, there is a “vicious circle” that does not allow the economy to develop on the basis of expanded reproduction, thereby ensuring positive dynamics of economic growth. It is necessary to evaluate the investment attractiveness of an enterprise as a complex object of research. Previously, the calculations did not take into account the social aspect - through the dynamics of the unemployment rate, that is, investment attractiveness was not considered from the standpoint of social problem-solving.

Introduction:

The fishing industry includes taking, culturing, processing, preserving, storing, transporting, marketing or selling fish or fish products. The current situation in the domestic economy significantly complicates the financial support of investment activities, which leads to investment activity reduction. This, in turn, does not contribute to stable economic growth and the improvement of society member well-being. The increase of funds invested in the economy of the regions and their effective use provides an opportunity for sustainable economic growth, and also favourably affects a region, a country potential development based on the reproduction of labour

resources and material resources (Logunova *et al.*, 2021).

The intensification of investment activities at Russian enterprises is the main condition to stabilize and develop the domestic economic system, which requires comprehensive financial support for the investment process. The relationship between the inflow of investments into the economy of any region and the provision of sustainable economic growth is obvious (Sumaila *et al.*, 2021).

Unlike traditional approaches to the concept of investment attractiveness, which usually consider it from the perspective of an investor, in our opinion, it is advisable to consider the concept of investment attractiveness

separately: for a strategic and portfolio investor, on the one hand, and an enterprise, on the other hand.

So, for strategic investors from the point of view of this approach, the investment attractiveness, in our opinion, should be understood as the expediency of investing in an organization to achieve an optimal ratio of income and invested resources, characterized by the indicators of financial stability, profitability, market activity and business development, as well as to solve a number of socially significant problems. Considering the regional administration as a strategic investor, it becomes obvious that investment attractiveness can be viewed from the perspective of employment problem solutions and, at the same time, of the regional economy sustainable development. Previously, investment attractiveness was traditionally considered from the standpoint of economic result achievement. We consider it is important to supplement and regard investment attractiveness from the solution perspective of a number of social problems, namely, the population employment rate increase, the unemployment rate reduction, and the population income increase. All this is possible as the result of investment attraction, which creates a base for the application of labour through the newly created jobs.

Previously, the calculations did not take into account and did not use the indicators of the number of employees at the enterprises of the industry and did not take into account the social aspect - through the dynamics of the unemployment rate, that is, investment attractiveness was not considered from the standpoint of social problem solving.

The personnel factor of the enterprise investment attractiveness was considered in the methodology by Valinurova *et al.* (2015a). However, the following indicators were used: average monthly salary; staff turnover; share of employees with higher education; salary growth; the number of conflict situations per year. For portfolio investors, the evaluative and substantive aspect of investment attractiveness is somewhat narrowed due to the purpose of investing funds, carried out only for the sake of receiving dividends. In this regard, the investment attractiveness for portfolio investors, in our opinion, should be understood as the expediency of making financial investments in an organization to obtain maximum income from the investment of free financial resources and from the operations carried out with securities, characterized by the indicators of net profit (as a source of income from investment activity for the reporting period) and market activity. For fishery enterprises, from the point of view of an appraisal-meaningful approach, in our opinion, investment attractiveness should be understood as the expediency of attracting additional resources, characterized by the indicators of financial stability, profitability, retained earnings and market

activity.

Methodology:

The purpose of this study is to determine a methodological approach to attract investments based on a comprehensive assessment of investment attractiveness, taking into account the interests of various participants in the investment process.

Results:

The economic growth of regional entities largely depends on the investment attractiveness of the region as a whole and on the attractiveness of individual organizations and ongoing programs and projects, in particular. Considering that the fishing industry is socially and economically significant for the Primorsky Territory, it can be argued that the growth of the regional economy depends on the fishery enterprise investment attractiveness and development, as an integral part of it. The economic and geographical location, proximity to the Pacific Basin, is an attractive factor for investors, as it opens up new business opportunities. This is important for the formation of investment attractiveness not only of the region but also of individual organizations (Konvisarova *et al.*, 2020).

Against the background of the almost complete absence of budgetary financing for the development of the fishing industry, the importance of investments directed to the creation of fishing enterprises and job number increase increases significantly. At present, the activation of investment processes can guarantee the rational development of various aspects of social production (Valinurova *et al.*, 2015b; Miroshnikova & Taskaeva, 2018).

The concept "investment attractiveness" is used to assess the feasibility of investing in a particular project, to select alternative options for implementation and determine the efficiency of resource allocation. At the same time, the investment attractiveness of an enterprise is characterized, on the one hand, by the economic or commercial efficiency of investment in a particular object implementing a certain investment project, on the other hand, by the possibility and expediency of investing funds from the point of view of the social-economic development of the territory (Gomola, 2004; Vladimirovna & Yurievna, 2017)). The investment attractiveness of fishery enterprises is the social-economic feasibility of investing, based on the coordination of the interests and capabilities of the investor and the recipient of investments (including the issuer), which ensures the achievement of their goals with an acceptable level of return and investment risk. It is proposed by Samarina & Latkin, (2008) to consider a complex indicator of the investment attractiveness of an enterprise as a quantitative measure of investment attractiveness. At the same time, within the framework of this approach, it is important to focus not only on the

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economic aspect but also on the social component (Samarina & Latkin, 2008).

Investment management is closely interconnected with the population employed in the region, therefore, it is necessary to assess the attractiveness on the basis of a synthesis of internal and external influence factors, focused on satisfying both the economic and social interests of different information users.

The main task of forming a methodology to calculate a complex indicator of investment attractiveness is to provide information necessary for making management decisions. The main consumers of information about the investment attractiveness of an enterprise are the management of this company (top management), strategic and portfolio investors interested in obtaining the data on various aspects of its activities. Thus, the main task of management is to clarify the overall level of the company operating and investment activity efficiency. A strategic investor needs to cover the issue of investing feasibility in an enterprise, taking into account the optimization of future income and investment costs incurred. Besides, considering the leadership of the region and the industry as a strategic investor, the following can be considered as the indicators to assess the achievement degree of the desired investment result: the number of people increases employed in the fishing industry of the region, due to the creation of new jobs; unemployment rate reduction in the industry and the region; the well-being of the regional population improvement.

In turn, the portfolio investor aims to study the possibility of equity capital maximization through financial transactions with the company securities (Kuzubov *et al.*, 2018). Consequently, the substantive aspect of the methodology to calculate the complex indicator will be formed on the basis of an adequate assessment of the necessary elements of the investment attractiveness of an enterprise, taking into account the compliance with the tasks of the interested parties.

Thus, the complex indicator will accumulate information on the economic value of the enterprise from the standpoint of the indicated stakeholders.

The complex indicator of investment attractiveness (TInv abbreviation based on the English term Total Index of investment range) will be determined as the result of summing up three auxiliary indicators:

- The indicator of investment attractiveness for the enterprise management - Icom (the value of internal, potential investment attractiveness is estimated from the standpoint of the enterprise management);
- The indicator of investment attractiveness for a strategic investor - Iminv (the economic and social value of an enterprise and investment efficiency are assessed from the standpoint of a strategic investor - main investor);
- The indicator of investment attractiveness for a portfolio

investor - Ifinv (the market position of an enterprise is assessed from the positions of a portfolio investor - financial investor).

The presented methodological approach provides for the following algorithm of the investment attractiveness evaluation among fishery enterprises.

1. Development of the system for evaluation criteria and their indicators used to calculate a complex indicator of investment attractiveness.
2. Transformation of indicators into the form of coefficients and data unification provision.
3. Distribution of estimated indicators according to the objectives of stakeholders: enterprise, strategic and portfolio investor; clarification of each indicator value.
4. Calculation of a complex indicator for an enterprise investment attractiveness.

Table-1: Composition of estimated indicators for different groups of stockholders

#.	Indicator for top management of the company	Value
1.	Operating profit (loss) ratio	0.2
2.	Own working capital (net assets)	0.12
3.	Economic value added (EVA)	0.12
4.	Intermediate coverage ratio (quick liquidity)	0.1
5.	Free cash flow amount	0.1
6.	Overall coverage ratio (current liquidity)	0.08
7.	Coefficient of provision with own working capital	0.06
8.	Local coverage ratio	0.06
9.	Autonomy ratio	0.06
10.	Financing ratio	0.05
11.	Absolute liquidity ratio	0.05
For a strategic investor		
1.	Share of net profit (loss) in the value of invested capital	0.1
2.	Default probability	0.1
3.	Asset to debt ratio	0.09
4.	The ratio of equity and long-term borrowed capital	0.08
5.	Share of net profit (loss) in the amount of equity capital	0.07
6.	Capitalization to debt ratio	0.07
7.	Labor productivity level	0.07
8.	Tax burden degree	0.07
9.	Coefficient of employed share change in the industry	0.07
10.	Economic power of an industry/activity	0.06
11.	Unemployment rate change ratio	0.06
12.	Investment assistance ratio	0.06
13.	Share of net profit (loss) in the total value of assets	0.05
14.	Share of proceeds from sales in production volume	0.05
For portfolio investor		
1.	Gross profit (loss) ratio	0.3
2.	Profitability (loss) of sales ratio	0.2
3.	Capitalization of profit (loss)	0.2
4.	Securities turnover ratio	0.2
5.	Capitalization level (capitalization in GRP)	0.1

Sources: Samarina & Latkin, 2008; Valinurova *et al.*, 2015a; Terentyeva *et al.*, 2019.

The complex indicator of investment attractiveness is a summary assessment of the enterprise from the standpoint of strategic and portfolio investors, and top management of the company. In this regard, based on the

use of the expert assessment method, the following distribution of estimated indicators and weight coefficients is proposed according to the social-economic interests of different parties (Table-1).

After specifying the set of indicators and value coefficients for each party interested in the analysis, it is necessary to calculate the values of the investment attractiveness indicators of an enterprise for the enterprise management; strategic investor; portfolio investor. Then a complex indicator of investment attractiveness is determined.

The determination of a complex indicator of investment attractiveness is carried out through the summation of three constituent elements:

$$TI_{inv} = (I_{com} + IM_{inv} + IF_{inv}) \max(3.1)$$

where I_{com} - a composite indicator of investment attractiveness from the position of the company management;

IM_{inv} - a composite indicator of investment attractiveness from the position of the strategic investor;

IF_{inv} - a composite indicator of investment attractiveness from the position of a portfolio investor.

Direct calculation of investment attractiveness indicator value from the position of the company management (I_{com}) is carried out according to the following formula:

$$I_{com} = A_1 TT_1 + A_1 TT_2 + A_1 TT_3 + A_1 TT_4 + A_1 TT_5 + A_1 TT_6 + A_1 TT_7 + A_1 TT_8 + A_1 TT_9 + A_1 TT_{10} + A_1 TT_{11}, \quad (3.2)$$

$TTTTT A_i$ - the value of the weighting factor of the used indicator;

$i =$ from 1 to 11;

T_1 - operating profit (loss) ratio;

T_2 - own working capital (net assets);

T_3 - added economic value;

K_4 - intermediate coverage ratio;

K_5 - the amount of free cash flow;

K_6 - the overall coverage ratio;

K_7 - provision with own circulating capital ratio;

K_8 - local coverage ratio;

K_9 - autonomy ratio;

T_{10} - financing ratio;

K_{10} - absolute liquidity ratio.

The calculation of investment attractiveness indicator from the position of a strategic investor is calculated by the following formula:

$$IM_{inv} = A_1 TT_1 + A_1 TT_2 + A_1 TT_3 + A_1 TT_4 + A_1 TT_5 + A_1 TT_6 + A_1 TT_7 + A_1 TT_8 + A_1 TT_9 + A_1 TT_{10} + A_1 TT_{11} + A_1 TT_{inv12} + A_1 TT_{13} + A_1 TT_{14}, \quad (3.3)$$

where A_i - the value of the used indicator weighting factor;

$i =$ from 1 to 14;

T_1 - the share of net profit (loss) in invested capital value;

T_2 - default probability;

T_3 - assets to debt ratio;

T_4 - equity and long-term borrowed capital ratio;

T_5 - the share of net profit (loss) in the amount of equity capital;

T_6 - capitalization to debt ratio;

T_7 - labor productivity level;

T_8 - tax burden degree;

T_9 - coefficient of employed number change in the industry;

T_{10} - economic influence of the industry / activity type;

T_{11} - unemployment rate change ratio;

T_{12} - investment assistance ratio;

T_{13} - the share of net profit (loss) in the total value of assets (property);

T_{14} - the share of proceeds from sales in the production volume of the industry.

The calculation of investment attractiveness indicator from the position of a portfolio investor is calculated using the following formula:

$$IF_{inv} = A_i TT_1 + A_i TT_2 + A_i TT_3 + A_i TT_4 + A_i TT_5, \quad (3.5)$$

where A_i - the value of the used indicator weighting factor;

$i =$ from 1 to 5;

T_1 - gross profit (loss) ratio;

T_2 - profitability (loss) of sales ratio;

T_3 - capitalization of profit (loss);

T_4 - securities turnover ratio;

T_5 - capitalization level (capitalization in GRP).

The presented methodology of a complex indicator calculation to assess investment attractiveness is based on the relationship and combination of a significant number of economic and social indicators. This qualitative variety of indicators is conditioned by the need for a more complete reflection of the complex and multifactorial category of enterprise investment attractiveness and to provide the satisfaction of interests of various participants in the investment process.

Discussion:

Within the framework of the study, they determined the methodological foundations for investment attractiveness evaluation of fishery enterprises. First of all, investment attractiveness is considered from the perspective of various groups of subjects of the investment process. For a strategic investor, investment attractiveness should be understood as the expediency of investing in fishery enterprises to achieve an optimal balance of income and invested resources, as well as to solve social problems.

A portfolio investor considers that investment attractiveness is the feasibility of making financial investments in fishery enterprises to obtain maximum income from the investment of free financial resources and from the operations carried out with securities, characterized by the indicators of net profit and market activity indicators.

For direct economic entities, the investment attractiveness is considered as the feasibility of attracting

additional resources, which leads to financial stability, profitability, retained earnings and market activity increase.

They presented the algorithm for calculating a complex integral indicator to assess investment attractiveness, as a set of assessment indicators for each subject of investment. This calculation method satisfies the interests of the investment participants and allows to take into account both the achievement of the desired economic goals and social ones.

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