Factors That Influence the Industrial Complexes Performance at the Mesolevel

Larisa Anatolievna Sakharova, Elena Vladimirovna Levkina, Anna Vladimirovna Loksha

*Abstract***:** *The Russian fishing industry is a strategically important element in ensuring the country's food security. It has established production, technological, and economic ties with many industries and types of economic activity and plays an important social role. However, the current state of the Russian fishing industry is primarily described by the loss of competitive positions in both domestic and foreign markets. Long lasting systemic crisis and stagnation in this industry negatively influenced the economic potential and prospects for its development.*

The development of the fishing industry is of particular interest to the Primorye Territory, since this industry is directly related to the socioeconomic development of this particular region and the Far East as a whole. Today, the fishing industry of the Primorye Territory provides the bulk of fish products in the Far Eastern Federal District (FEFD): the production of marketable products amounted to 27.6 thous. tons in 2019, against 7.5 thous. tons a year earlier. The fishing industry is described by a variety of systemic external and internal factors that influence its performance. Development of managerial decisions, first of all, requires to define a set of factors as "levers" for improving business processes and developing tools of state support.

The goal of the study is to identify and group the factors that influence the industrial complexes operation at the mesolevel (for example, the fishing industry of the Primorye Territory).

The theoretical and methodological basis of the study was to use general methods of scientific and theoretical analysis to deepen the phenomena and concepts under study. The methods of analysis and synthesis were used in the article to consider and identify the factors that influence the performance of the fishing industry in the region, as well as to reveal connections between the elements, their interaction and contradictions.

*Keywords***:** *factors, fishing industry, efficiency, profit, management, mesolevel, analysis, industry.*

I.   INTRODUCTION

Due to the multidimensionality of the "performance" concept, numerous features and problems of the industry systems development, the issue of classification of factors that influence the industrial complexes performance is also open and debatable.

The industry systems performance is influenced by various factors in the market environment. They can be classified according to various criteria. Moreover, the factors can be interconnected and have a synergistic effect on the production performance.

The main tasks in the study of factors that influence the performance of industry systems are the following [1, 2]:
– to identify factors and group them by classification criteria;
– to determine the relationships between factors, both at the same management level and interaction with factors of another management level; and
– to provide quantitative characteristics of factors and assess their impact on the final indicator.

The knowledge of the determining factors and the ability to assess their impact on the performance can improve the financial and economic condition of industrial enterprises as a whole and increase the validity of further managerial decisions. The study of factors will reveal how they impede or contribute to the performance of the fishing industry [3]. The best combination of factors will ensure not only the performance of fishing enterprises, but also the development of the national economy as a whole [4].

II.   PROPOSED METHODOLOGY

A.   General description

There is no unified approach in the economic literature to determining the composition of factors that influence performance, their economic content, and classification attributes [5, 6]. This issue is considered in the dissertation study of E.V. Levkina "Management of the fishing industry performance in the region (by the example of the Primorye Territory)." At the same time, there are factors that have the most significant effect on the industry performance and factors with negligible influence. It must be noted that each phenomenon and process can be the cause of the result dynamics, on the one hand, or the result of the influence of a factor of a deeper order, on the other hand. As such, an increase in the labor productivity of an industrial complex can be caused by both an increase in production volumes, a decrease in the number of workers, and a change in the degree of mechanization and automation of production, the introduction of innovative developments, the improvement of labor organization, etc.

The researchers distinguish natural, demographic, sociocultural, economic, legal, political, and innovative factors by the nature of their occurrence. They include: forecasts of changes in the economy expressed in terms of inflation, the level of employment; the level of well-being of the population,

Retrieval Number: D4534118419/2019©BEIESP
DOI:10.35940/ijrte.D4534.118419
Journal Website: www.ijrte.org

9075

Published By:
Blue Eyes Intelligence Engineering
& Sciences Publication

monetary circulation, GDP growth; standards of international law; national legislation on the regulation of foreign economic activity, the degree of political stability, customs, tax, and sanctions policies; demographic characteristics of the population, food culture;

natural and climatic conditions, natural resources; advances in science and technology, enterprise strategy in R&D; prices for raw materials, transportation, etc. The resource base, production technology, and the level of management of organizations all directly influence the performance of the industrial enterprises [7].

V.M. Voronina [8] classifies factors by the degree of intensity of changes (quickly, moderately and slowly changing and virtually unchanged) and by the strength of impact (destructive factors, factors of strong and moderate impact).

Most scientists subdivide factors by the direction of their influence – as external and internal. This classification is considered in detail in the writings of O.M. Kalieva [9], M.A. Eskiev [4], G.G. Kuzminich [10], A.V. Alexandrov [11], K.R. Margania [12], and M.A. Shishilov [13]. The authors support the identification of this typological group as a basis for studying the influence of factors.

It must be noted that this classification is clarified for the separation of factors by the organizational and technical basis in the writing of M.A. Eskiev [4]. The researcher distinguishes national, sectoral, territorial, extensive, intensive, general, structural, organizational, and specific factors. According to the authors, M.A. Eskiev deviates from the classification of factors generally accepted in economic analysis when combining different typological characteristics in one group.

A.V. Alexandrov divides external factors by the level of impact on the megalevel (world economy), macrolevel (state), mesolevel (city and region) and microlevel (enterprise). He also classified internal factors into production, managerial, personnel, financial, and economic ones [11]. In the opinion of the authors, this classification does not pay due attention to the industry specifics of industrial complexes.

Factors are distinguished by the level of influence – as direct and indirect. Direct factors include economic (tax, financial, and credit policy of the state, inflation rate); legal (institutional development of entrepreneurship support systems, as well as the level of development of the regulatory framework); and innovative (the development of privatization and innovative processes, the state of scientific and technological progress in the country).

Indirect factors include political ones (coordination of actions at various levels of government, international relations); natural (the level of development of natural resources, regulation of the use of fuel reserves and raw materials); demographic (income and employment); and sociocultural factors (organizational and consumer culture of the state population) [4].

N.A. Miroshnichenko complements the above classification attributes of factors with the following types:

– factors are divided into explicit and latent by the degree of evidence;

– autonomous factors and those with a synergistic effect by the method of influence; and

– innovative and traditional by the degree of novelty [14].

As such, the factors highlighted by the authors differ in their nature, impact on efficiency, regulatory options, etc. Taking the diversity of views on the classification of efficiency factors into account, the issue of forming a complete system of factors is rather complicated and controversial. The authors presented the most commonly used classification attributes and the corresponding types of factors that influenced the production performance in Table 1.

The main purpose of the factors classification is to comprehensively study the causes that influence the efficiency of production or an economic entity. The presented classification of factors is applicable to economic systems of various scales: from industries to individual entrepreneurial structures [13]. Many scientists studied factors according to individual classification criteria, taking the specifics of the industry systems into account.

B.   Algorithm

Classification of factors that influence the performance of the fishing industry. Taking the subject of the dissertation research into account, it is advisable to consider the authors' views on the factors that influence the state of the fishing industry. The fishing industry is described by a variety of systemically important external and internal factors that influence its performance.

Table 1: Classification of factors that influence the production performance

Classification attribute of factors	Types of factors
By possible influence	– universal; – specific.
By area of influence	– external; – internal.
By duration of influence	– constant; – regular; – momentary.
By the influence on the resulting indicator	– positive; – negative.
By the method of influence	– autonomous; – with a synergistic effect.
By degree of detail	– simple; – complex.
By type of manifestation	– constant; – variable.
By degree of evidence	– explicit; – latent.
By degree of importance	– basic; – minor.
By belonging to a certain level of management	– individual factors; – microfactors; – mesofactors; – macrofactors.
By period of exposure	– short-term; – medium-term; – long-term; – termless.
By level of measurability	– quantitative; – qualitative.
By degree of control	– controllable; – uncontrollable.
By the nature of action	– intense; – extensive.

By degree of novelty	– innovative; – traditional.

When studying the organizational and economic mechanism for improving the performance of the fishing industry, D.V. Borodin proposed a classification of factors into two groups: internal and external.

The author attributes organizational, marketing, cluster, investment, economic, technical and technological, personnel, and social factors to internal, while political, regulatory, financial and economic, resource, sociodemographic, innovative, and environmental ones were attributed to external factors [15].

When studying the specifics of the fisheries in the Republic of Buryatia, O.N. Ponomareva [16] classifies factors by area of influence: internal and external. The author considers strategic goals, organization of production, technology, personnel, fixed assets, resources and product quality as internal factors, while market type, industry concentration, inflation, resource prices, territorial and climatic conditions as external factors [16].

When considering the industry specifics of ensuring the performance of fisheries in the Azov-Black Sea basin, L.V. Aleksakhina divides factors by levels of influence into three groups: macro-, meso-, and microfactors [17].

Macrofactors include political, natural and climatic, environmental, geographical, administrative, nationwide, and financial ones. Mesofactors are commercial, administrative, industry-wise, innovative, investment, and financial ones [17]. In the opinion of L.V. Aleksakhina, organizational, production and business, commercial, sales, financial, sociocultural, technological, operational, and technical factors have influence at the microlevel [17].

III. RESULT ANALYSIS

As a result of the study in the classification of performance factors in economics, industrial production, and the fishing industry, the variability of causes and criteria can be noted. Such a variety of approaches to the factors classification is explained by the difference in goals, objectives, and industry specifics of the object of study. Taking into account that the emphasis in the dissertation research is on the study of performance by levels of managing the operation of the socioeconomic systems, it is advisable to group factors as follows:

– factors that have influence at macrolevel;
– factors that have influence at mesolevel;
– factors that have influence at microlevel; and
– factors that have influence on the product performance management (individual level).

The proposed classification will allow to highlight and group factors at each level, which is of fundamental importance for the development and implementation of specific measures to improve the operation of the fishing industry, both in the Primorye Territory and other regions.

Macrofactors have direct impact on the performance of the fishing industry. These include:

– economic (analysis of the political stability; GDP growth; CBR key interest rate and the commercial loan interest rate; customs policy; tax policy; sanctions; forecasts of changes in the economy expressed in terms of inflation and employment rate; money supply; level of well-being of the population, and also allocation of quotas for fishing);

– international (international law; national legislation on the regulation of foreign economic activity);

– sociocultural (demographic characteristics of the population, food culture, lifestyle, educational level of the population, and level of consumption of goods and services);

– natural and climatic (natural and climatic conditions, natural resources, state of the environment and methods of struggle for its purity, and legislation on environmental protection);

– scientific and technological (advances in science and technology, regulation in the R&D);

– market conditions (prices for raw material, transportation fares, the development of a competitive business environment, the intensity of inter-farm relations, infrastructure, etc.); and

– legal regulation.

The microfactors have direct influence on the performance of industrial enterprises. Considering the factors of the microenvironment, their distinction for each enterprise can be noted. The performance of the organization and the possibility of its development depend on the state of the material and technical base. The most important result of the efficient use of the material and technical base of fishing enterprises is an increase in production volumes and a reduction in the cost of manufactured fish products due to modernization, technical re-equipment and reconstruction of the existing production facilities, reengineering of technological processes, use of complex mechanization, specialization, and concentration of production.

The tools of the marketing mix are used through the continuous improvement of the properties of fish products and the creation of new fish products that have competitive advantages over manufactured ones.

The rational pricing policy secures a stable profit from the sale of products, performance and competitiveness in the market for fishing enterprises.

The level of economic security of the enterprise describes its financial condition and secures efficient operation and development, regardless of the impact of negative factors of the market environment.

The technical and organizational level of production and hence the performance of fishing enterprises depend on the qualifications of personnel.

Innovative methods of deep processing of fish and seafood should be used to secure the competitiveness of fish products. The innovation-driven growth of enterprises secures the growth of income, profit, market share, reduction of production, commercial and financial risks, and the adoption of sound managerial decisions on the performance of fishing enterprises.

Optimization of the product range of fish products influences the amount of expenses, profits, and profitability of the enterprise and hence the performance of fishing organizations.

Information resources play a large role the business environment. Timely management and rational use of qualitative information can improve the enterprise performance and increase its competitiveness.

The success of the activities of fishing organizations depends on the chosen strategy, tactics, and organization of management, because the approved strategy defines the fundamental principles of managerial decisions and hence the performance on the market.

The efficiency of each type of fish products serves as the economic basis for the efficient organization of production of fishing enterprises [18]. Product efficiency is influenced by price, quality, advertising campaign, brand, packaging, and consumer demand for this type of product. The price for fish products depends on the cost and rate of return per unit of output. The sale of products at a price equal to the prime cost or with an insignificant rate of profit will reduce the profitability of the product, and as a result, a complete cessation of production is possible. Product quality also influences the price level [19]. High quality can trigger a rise in product prices in the absence of a reduction in demand caused by higher prices, and vice versa. An equally significant factor is the level of demand among buyers of fish products at a set price. In turn, consumer behavior depends on the trademark; manufacturer's business reputation; packaging that allows to preserve the organoleptic characteristics of fish products; and the efficiency of an advertising campaign that promotes demand for fish products.

It must be noted that the mesofactors of performance are not adequately covered in the scientific literature, and there is no common view on this issue shared among the authors. According to the authors, the following factors influence the performance of industrial production, including the fishing industry, at the mesolevel:

– geographic location;
– investment attractiveness;
– concentration of the regional market;
– regional level of prices;
– export and import policy;
– transportation and logistics system;
– research potential;
– municipal and regional business support;
– raw materials and material and technical base; and
– specifics of the standard of living and consumer behavior.

According to experts, the complete import substitution is unlikely in the coming years. Insufficient technical equipment of domestic processing enterprises and the transportation and logistics chain for cooled and frozen products do not allow to produce and deliver products superior in quality to imported goods to the end consumer [19].

The dynamics of indicators of the export and import policy of the fishing industry in the Primorye Territory are presented in Table 2.

Table 2: Dynamics of indicators of export and import policy of the fishing industry in the Primorye Territory for 2009 – 2018 In mln USD

Indicator	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Export	503.7	583.1	658.8	711.6	825.1	966.7	885.2	938.7	985.8	1,373.9
Import	44.6	82.6	49.5	44	53.2	82.3	58.4	62.4	79.6	76.4
Export/import, times	11.29	7.06	13.31	16.17	15.5	11.75	15.16	15.04	12.0	18.0

Source: compiled by the authors using the data from Primstat

As a result of the analysis of the export and import indicators of the fishing industry, it can be noted that exports generally exceed imports, but imports exceed exports for the "canned fish and seafood" item. Imports of fish and seafood amounted to USD 76.4 mln in 2018 and decreased by 4 % compared to 2017. The main imports were fresh and frozen fish (49 %) and cooked and canned fish products (21 % of the import value).

A significant excess of the volume of fish and seafood exports over imports (18 times in value terms) remained in 2018, as well as in previous years. The main countries where products are shipped from the Primorye Territory and the Sakhalin region are the Republic of Korea (65 %), China (34 %), Japan, Thailand, Vietnam, the EU countries, and Nigeria.

It is required to increase the competitiveness of Primorye fish products through deep, high-tech processing of fish and hydrobionts in order to reduce the supply of imported products from domestic raw materials to the markets of the Primorye Territory.

The dynamics of per capita consumption of fish products in the Primorye Territory for 2009 – 2018 are presented in Figure 1. The dynamics are presented in comparison with data on the FEFD and Russia as a whole for objectivity.
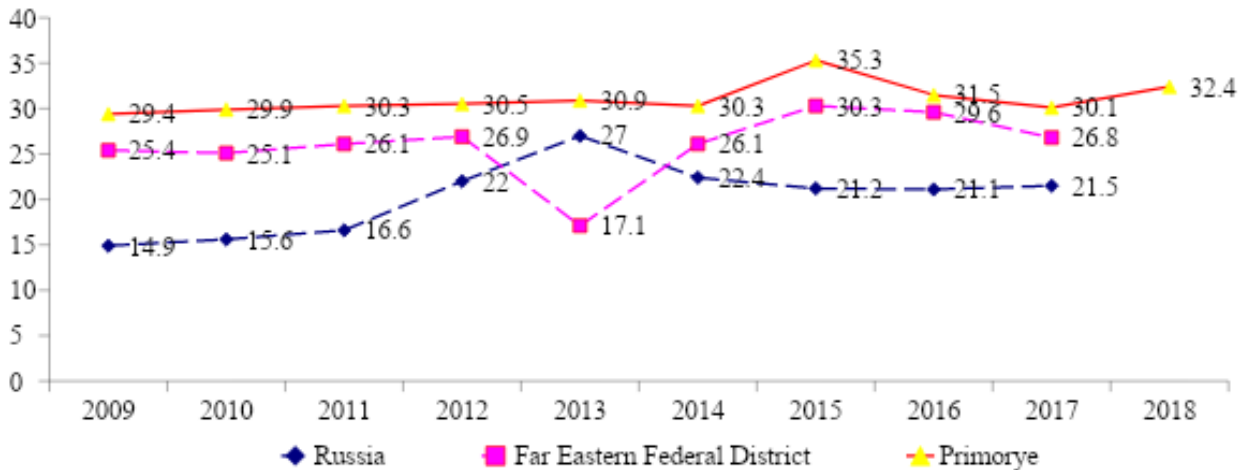

Fig. 1: Dynamics of per capita consumption of fish products in the Primorye Territory for 2009 – 2018, in kilograms

Compared to Russia and the FEFD, the consumption of fish products is higher in Primorye. The consumption of fish products by residents of the Primorye Territory in 2016 was by 40.3 % more than in the Far Eastern region and by 49.3 % more than in the whole country. There has been a decrease in the consumption of fish products since 2015, which is due to rising prices with a decreasing purchasing power of the population, both in the regions of the Far East and throughout the whole country. Therefore, the price is one of the factors influencing the level of consumption of fish products. Consumer spending on fish food products by households in Primorye increased by 31 % in 2018 and amounted to 517 rubles on average per household member per month. Households spent 2.4 % of their expenses on fish products.

IV. CONCLUSION

In summary, the considered factors are a system that influences the performance of the fishing industry. The factors of all levels are interconnected and have a certain synergistic effect of mutual influence. The proposed classification of the factors by the level of influence on the results of the socioeconomic systems operation will allow to structure factors and form an optimal set of factors depending on the objectives of the study, which will be used to develop managerial decisions to improve the efficiency of enterprises and industry systems. It must be borne in mind that ignoring individual factors or neglecting the role of other factors will curb the improvement of performance of any industry system.

REFERENCES

1. T.M. Regent, O.V. Glinkina, S.A. Ganina, O.V. Markova, V.O. Kozhina, "Improvement of Strategic Management of a Tourism Enterprise in the International Market", Journal of Environmental Management and Tourism, 10(2), 2019, pp. 427-431.
2. E.E. Jukova, I.Y. Ilina, M.V. Gundarin, E.V. Potekhina, I.N. Misanova, A.I. Zotova, "Planning a New Business: Typical Mistakes of a Business Plan in the Service Sector", Journal of Environmental Management and Tourism, 10(2), 2019, pp. 441-447.
3. T.B. Shivrina, "Problemy i faktory, vliyayushchiye na effektivnost deyatelnosti predpriyatiy pishchevoy promyshlennosti g. Kirova" [Problems and factors that influence the performance of enterprises in the food industry of Kirov]. International Research Journal, 6–1(48), 2016, pp. 96-98.
4. M.A. Eskiev, S.A. Aslakhanova, A.I. Beksultanova, "Effektivnost sistemy upravleniya organizatsiyey. Osnovnyye faktory, vliyayushchiye na effektivnost" [Efficiency of the organization management system. Key factors that influence the efficiency]. Young scientist, 23(103), 2015, pp. 689-692.
5. G.S. Gaukhar, B. Bektanov, A. Bekturganova, "Sources of Attracting Investments in Technological Innovation Projects to Ensure the Sustainable Development of Rural Areas", Journal of Environmental Management and Tourism, 10(4), 2019, pp. 935-941.
6. E.Y. Nikolskaya, M.E. Uspenskaya, E.N. Lysoivanenko, A.V. Meltsov, T.Y. Kramarova, "Economic-Legal Aspects of Hotel Service Provision", Journal of Environmental Management and Tourism, 10(4), 2019, pp. 720-724.
7. V.A. Kolodyichuk, I.A. Kolodychuk, "Sotsialno-ekonomicheskiye aspekty kategorii effektivnosti" [Socioeconomic aspects of the efficiency category]. Universum: economics and law, 2(13), 2015, p. 1.
8. V.M. Voronin, T.P. Medvedeva, O.P. Mikhailova, "Marketingovaya diagnostika deyatelnosti promyshlennykh predpriyatiy" [Marketing diagnostics of the activities of industrial enterprises]. Russian model of marketing: technology, innovation, practice: Collection of materials of the International Research-to-Practice Conference. Ufa: Publishing House of BAGSU, 2007, pp. 137-141.
9. O.M. Kalieva, "Ponyatiye ekonomicheskoy effektivnosti kommercheskoy deyatelnosti" [Concept of the economic efficiency of commercial activities]. In the collection: Innovative economics Proceedings of the International Research-to-Practice Conference, 2014, pp. 99 –103.
10. G.G. Kuzminich, "Faktory, vliyayushchiye na konkurentosposobnost predprinimatelskikh struktur" [Factors that influence the competitiveness of entrepreneurial structures]. Bulletin of the Irkutsk State Economic Academy (The Baikal State University of Economics and Law), 4, 2011, p. 35.
11. A.V. Alexandrov, "Faktory obespecheniya konkurentosposobnosti predprinimatelskikh struktur" [Factors of ensuring the competitiveness of business structures]. Management of economic systems: electronic scientific journal, 5(29), 2011, p. 34.
12. K.R. Margania, "Pokazateli effektivnosti predpriyatiy na mikro- i makrourovne" [Performance indicators of enterprises at the micro- and macrolevels]. Russian Economic Internet Journal, 1, 2009, pp. 467-654.
13. M.A. Shishelov, "Effektivnost funktsionirovaniya regionalnykh lesopromyshlennykh kompleksov" [Performance of regional forestry complexes]. Economy of the region, 2(34), 2013, pp. 114-119.
14. N.A. Miroshnichenko, "Klassifikatsiya faktorov, vliyayushchikh na effektivnost selskokhozyaystvennogo proizvodstva" [Classification of factors that influence the efficiency of agricultural production]. Issues of Economics and Law, 63, 2013, pp. 94-97.

15. D.V. Borodin, "Povysheniye effektivnosti organizatsionno-ekonomicheskogo mekhanizma khozyaystvovaniya v rybnoy promyshlennosti" [Improving the performance of the organizational and economic mechanism of management in the fishing industry]. Economics and Entrepreneurship, 2(25), 2012, pp. 220-225.

16. O.N. Ponomareva, "Puti povysheniya ekonomicheskoy effektivnosti vosproizvodstva rybnykh zapasov" [Ways to increase the economic efficiency of the reproduction of fish reserves]. Krasnoyarsk, Bulletin of the KrasGAU, 15, 2006, pp. 35 – 37.

17. L.V. Aleksakhina, "Otraslevaya spetsifika obespecheniya effektivnosti ekonomicheskogo mekhanizma predpriyatiy rybnogo khozyaystva" [Industry specifics of ensuring the efficiency of the economic mechanism of fisheries enterprises]. Culture of the Black Sea peoples, 81, 2006, pp. 18-21.

18. N.B. Sarsembayeva, A.E. Urkimbayeva, T.B. Abdigaliyeva1, S.E. Yermagambetova, A.N. Biltebay, M.O. Yergumarova, "Mineral Composition of Fish Meat after the Addition of New "Vermofish" Food Supplement to the Ration", Annals of Agri Bio Research, 24(1), 2019, pp. 106-110.

19. O.Y. Vorozhbit, Ye.V. Levkina, "Improving Scoring System of Performance Indicators of Industrial Systems at the Meso-Level", European Research Studies Journal, 20(4B), 2017, pp. 666-674.