

ABSTRACT
of thesis by Razakova Aliya Akhanovna
«Economic efficiency of production diversification
at oil and gas producing enterprises
(based on experience of Kyzylorda region)»,
presented for the degree of Doctor of Philosophy (PhD)
specialty 6D050600-«Economy»

Relevance of the research topic. The global oil and gas price volatility, the excess of commodity supply over demand and the influence of politics on the emerging global economy recessions led to a sharp three-fold decrease in the cost of hydrocarbons from 2014 to 2020. Like all other economies, the global oil and gas sector has suffered considerably from the coronavirus pandemic. Oil and gas consumption by the leading importing economies has decreased sharply.

Oil and gas companies of Kazakhstan, as well as the entire oil and gas industry are currently implementing programs to diversify the production process, looking for new opportunities to increase the competitiveness of their products, stability in industry markets, and choosing their further development strategies. Currently, oil and gas producers and large companies in order to diversify their activities are expanding the range of commodity products, quickly responding to emerging changes in industry markets, and looking for new ways to improve performance.

Changes in the production diversification within oil and gas producing enterprises have a significant impact on the development, ensure consistency and stability of production activities.

Any diversification is associated with attracting investments and choosing the right path of development. Diversification of the oil and gas complex is a rather resource-intensive process that requires a comprehensive economic analysis and evaluation of the selected investment project solution for the production diversification.

As the global economy is facing challenges, the assessment of the effectiveness of diversification at oil and gas producing enterprises is of particular importance, because diversification will have a certain impact on the development of the economy of the region where the oil/gas company is located.

The relevance of this thesis research is explained by diversion of the Kazakhstani economy from raw materials production and the transition to industrial and innovative development to achieve sustainable economic growth through the diversification of production processes.

The methodology developed in this paper for assessing the economic efficiency of production diversification at oil and gas producing enterprises will be a recommendation for development of a strategy for further growth of the oil and gas sector of the economy of the Kyzylorda region as one of the leading industrial structures of the regional economy.

The above circumstances make the problem of the research even more relevant.

Elaboration of the research topic.

The diversification of the oil and gas sector in Kazakhstan is aimed at increasing the complexity of production, introduction of innovative technologies, and expansion of value-added commodity products.

The issues of research on the categories of diversification and diversification of production are disclosed by a number of authors: Ansoff I., Rudyk N.B., Yudina A.S., Nemchenko G., Donetskaya S., Dyakonova K., Baykin A.K.

Theoretical and practical problems of oil and gas production, creation of oil refining enterprises, diversification of production, including in the oil and gas complex, were economically justified by scientists: Humphreys, Sachs, Stiglitz, Safonova T.Y., Chagarbiyev S.N., Alshanov R.A., Sheveleva A.V., Akiyeva L.B., Voytovich Y. A. TcharoHonore, Stepanenko A.I., Larin S.N., Jinghong Y.

The economic mechanisms of oil and gas sector development, general problems of the oil and gas economy, the effectiveness of investment oil and gas projects were studied by a number of scientists: Dunayev V.F., Shpakov V.D., Yepifanova N.P., Lyndin V.N., Andreev A.F., Berezina S.A., Martynov V.G., Zubareva V.D., Sarkisov A.S., Shinkevich A.I., Konoplyanik A.A., Makarov A.V., Ilyasov I.T., Aleksandrova O.A., Nizamova G.Z. Mazurina Y.V., Pavlovskaya A.V, Bogatkina Y.G., Lyndin N.V., Radionova L.N., Tolstonogov A.A., Kosov M.Y.

The development of the oil and gas industry in Kazakhstan was studied by scientists Yegorov O.I., Chigarkina O.A., Shalbolova U.Zh., Yegemberdiyeva S.M., Yelpanova M.A., Niyazbekova Sh.U, whose works were devoted to the problems of increasing the efficiency of integrated use and proportional development of regions, development of new large reserves of mineral resources, creation of a cluster in the oil industry, identification of priority directions in oil refining, evaluation of diversification and efficiency of investments in the development of the oil and gas sector of the national economy.

In 2018, Asian Development Bank released an analytical publication “Kazakhstan: Accelerating Economic Diversification” edited by K. Anderson, Giovanni Capannelli D., E. Ginting and K. Taniguchi [28]. In this analytical study, the issues of diversification in the oil and gas industry of Kazakhstan are reviewed from the perspective of expansion potential of oilfield services.

The processes of diversification of the oil and gas sector aimed at expanding the activities and sustainable development of enterprises require economic feasibility. It is necessary to develop a perfect methodology for evaluating the diversification of production at oil and gas producing enterprises. This determines the goal and objectives of the thesis work.

The purpose of the thesis work is to scientifically substantiate theoretical provisions and develop practical recommendations for determining the economic efficiency of production diversification at oil and gas producing enterprises.

The target goal of the work determines the formulation and achievement of the following **objectives**:

- understanding the theoretical and economic content of the “production diversification” category and clarifying the concept of “production diversification at an oil and gas producing enterprise”;

- substantiating the methodological approaches to evaluating the economic efficiency of production diversification and classification of its evaluation indicators considering the specifics of the functional activity in the national oil and gas sector;

- studying the international practice of diversification of the oil and gas sector by oil and gas exporting countries and the feasibility of adopting world experience for the Kazakhstani economy;

- conducting an analytical study of the current state and paths for further development of oil and gas sector enterprises in Kyzylorda region;

- analyzing the diversification processes of production in the oil and gas sector of Kyzylorda region economy;

- assessing the economic efficiency of production diversification by the example of certain oil and gas producing enterprises of Kyzylorda region;

- based on the results of analytical studies, determining the priority directions for further development of diversification of oil and gas producing enterprises in the region, considering global challenges;

- estimating the break-even point of an investment project to diversify production at oil and gas enterprises of Kyzylorda region and impact on the economy of the region as a priority indicator of efficiency;

- assessing the economic risks for oil and gas producing enterprises associated with the implementation of production diversification.

The **object of the research** is the leading oil and gas producing enterprises of Kyzylorda region.

The **subject of the research** is the economic relations arising in the process of production diversification at oil and gas sector enterprises.

The theoretical and methodological basis of this paper includes the results of scientific research by foreign and Kazakhstani scientists on functioning of the oil and gas sector in the development of economic systems, publicly available reports from oil and gas sector and individual oil and gas enterprises, strategic development plans of oil companies, projects and project solutions for the diversification of oil and gas sector enterprises. The data of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan and the Ministry of Energy of the Republic of Kazakhstan, analytical forecasts of the International Energy Agency, NC “KazMunayGas” JSC and various expert agencies were used. The legal documents used in the research include the Law of the Republic of Kazakhstan “On Subsoil and Subsoil Use” and state program documents of industrial and innovative development of Kazakhstan.

Various special and complex methods of scientific research were used in this thesis. Special methods include literary review, review of statistical documents and performance of research objects, expert evaluation method. Complex methods consist in the use of multiple special methods: examination, monitoring, review and generalization of real practice. The main research methods used in this paper

are analysis, synthesis, comparison, specification, generalization, formalization, subject modeling, and forecasting.

Scientific novelty of the research:

- clarified the concept of “production diversification” considering the industrial specifics of oil and gas enterprises;
- substantiated the main approaches to assessing the economic efficiency of production diversification at an oil and gas producing enterprise;
- assessed the economic efficiency of the production process diversification at the oil and gas sector enterprise;
- proposed recommendations on the development of production diversification at oil and gas enterprises;
- identified break-even point and risks in the production diversification for oil and gas enterprises.

Main points to be defended:

- author’s interpretation of the concept of “production diversification at an oil and gas enterprise”;
- methodological approaches to assessing the economic efficiency of production diversification at an oil and gas producing enterprise;
- economic efficiency of production diversification at an oil and gas enterprise;
- main directions of production diversification development to ensure the sustainable development of oil and gas producing enterprises in Kyzylorda region.

Practical significance of the research. Certain provisions will be used by the Ministry of Energy of the Republic of Kazakhstan in elaborating a strategy for the development of the country’s oil and gas sector, by the Budget Planning Department of Kyzylorda region in preparing economic development programs for the region and improving its competitiveness. The results of the research were used by the State Institution “Department of Industrial and Innovative Development of Kyzylorda region” in drawing up development programs for the region’s oil and gas sector.

Practical results of the research can be used by oil and gas sector enterprises as methodological recommendations in order to develop directions of production diversification, by engineering organizations to assess the effectiveness of investment projects for production diversification.

The main provisions of the research will be used in teaching students, undergraduates and doctoral students at elective courses on the development of the oil and gas sector, disciplines on evaluating the effectiveness of investment projects, assessing economic risks, and industrial and innovative development of the national economy. The results of the thesis will also be used in conducting scientific research by Research Institute employees and young scientists on the aspects of production diversification and development of the national oil and gas sector of economy.

Practical approval of the research results. Certain provisions and results of this thesis were used in speeches at international scientific and practical conferences: “National economic systems in the context of forming the global

economic space” (Simferopol, 2018); “Quality management: search and solutions” (Kuala Lumpur, Malaysia, 2017); “Modernization of the economy: prerequisites, current state, ways of development in the context of global challenges and industry trends” (Nur-Sultan, 2020). The report “Diversification in the oil and gas industry of Kazakhstan” was presented at the International Economic Forum “Economics in the Changing World” (Kazan, 2018).

The **main results of the thesis** were published in 9 scientific papers, including in journals recommended by COXON MES RK - 3 articles, in the publication of Scopus Scientometric Database (percentile - 53) - 1 article, in the proceedings of the international scientific and practical conferences - 4 (3 of them abroad).

Scope and structure of the thesis. The thesis includes a preface, three chapters, a conclusion, a list of references, 40 tables, 26 figures, and 3 appendices.