

**REPUBLIC OF AZERBAIJAN**

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**ABSTRACT**

of the dissertation for the degree of Doctor of Philosophy

**RAISING INVESTMENT ATTRACTIVENESS  
AND INTRODUCING ADVANCED TECHNOLOGIES AS  
THE BASIS FOR THE DEVELOPMENT STRATEGY  
OF THE OIL AND GAS INDUSTRY OF UZBEKISTAN**

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## STUDY OVERVIEW

**Relevance of the topic.** The role of investments in the national economy is manifested by the fact that they create conditions for further expansion of production. Investments represent the something that is “saved” for tomorrow in order to be able to consume more in the future. Moreover, the part of the investment is directed to the growth of non-productive fixed assets in the field of education, health care, etc. An increase in the volume of investments constitutes the condition required for the economic growth. Highlighting the priorities of the national economic development, the First President of Uzbekistan I.A. Karimov noted that *“Under difficult conditions we have to ensure further sustainable development of the economy, continue our efforts on its diversification, modernization and technical re-equipment of production”*. Significant investment resources are required to solve this problem and attracting funds from foreign investors is one of the most important areas among them.

The President of Uzbekistan Mirziyoyev Sh. M. by his Decree dated February 7, 2017, approved the Action Strategy for five priority areas of the development of the country in 2017-2021. One of the focus areas **“Development and liberalization of the economy”** orients the industries and the economy as a whole towards strengthening macroeconomic stability and maintaining high rates of economic growth, enhancing its competitiveness, modernizing and intensive development of agriculture, continuing institutional and structural reforms to reduce the presence of the state in the economy, strengthening protection of rights and priority development of private property, promoting development of small business and private entrepreneurship, comprehensive and balanced socio-economic development of regions, districts and cities.

Currently the oil and gas industry plays a core role in the economy of any country. Over the past 5 years, the total volume of investments of enterprises of the oil and gas industry of Uzbekistan at current prices has demonstrated more than 2-fold increase, including in fixed assets - by 2.2 times their share amounted to 99% versus 76%, out of which the share made in the purchase of equipment increased by 25% and non-residential buildings and structures rose more than 6 times. The volume of investments for capital repairs decreased by almost 80%, and their share constituted 1% against 10%.

As a result of the impact of the management system for the sustainable development of the industry, the significance of foreign direct investments as a source of enterprise development has increased, and its amount amounted to 9.7 billion USD over the past 5 years. Investments in the oil and gas industry are considered the most liquid among long-term projects. In 2018, more than 40% of foreign direct investment attracted to the national economy is accounted for the oil and gas industry.

The development of theoretical and methodological problems associated with the adequate use of direct investments for the accelerated development of the oil and gas sector, as well as with an increase in the efficiency of the impact of the boost for oil and gas exports on the rate of socio-economic development of the country has been still remaining relevant.

Therefore, under modern conditions the research of the problems of raising investment attractiveness of enterprises of the oil and gas complex of the Republic of Uzbekistan (for foreign investors) represents a crucially important and urgent objective.

The issues of the development of capital investments, and further - investment placements in the development of economic sectors have been elaborated were worked out by many domestic and foreign scholars, such as K.R. Maconnell, S.L. Bru, E.J. Dolan, P.E. Samuelson, S. Fisher, A.N. Asaul, G.V. Erdman, K.V. Baldin, E.V. Lisitsin and others. The following scholars: M.A. Limitovsky, T.V.Sachuk, V.M. Serov., V.N. Chapek, A.S. Chesnakov, G.A. Batishchev, V.D. Zubarev, Yu. Yufrakov, M.I. Fedyakov, I. Tikhomirova, E.N. Orlova and others, scientists-economists of Azerbaijan: academician Z.A. Samedzade, G.A. Abbasova, T.N. Alieva, A. Akhmedov, G.A. Safarova, M.J. Atakishieva, S.M. Gasimova, E.M. Hajizade, V.M. Veliev, S.M. Salimov and others can be referred to the second group. The problems of investment development in the new conditions of transition to market relations have been researched in the domestic science by such scientists as S.S. Gulyamov, A.A. Zakirov, Sh.E. Zokirov, I.E. Ivonina, M.B. Khamidulin, R.I. Kayumov, E.H. Makhmudov, A.S. Usmanova, G. Ch. Fedyasheva, N. Yuldashev, N.N. Khashimova, U. S. Nadyrkhanov and many others. Herewith, the issues of raising the investment attractiveness of enterprises in the oil and gas industry have not been researched at the adequate level.

These circumstances, as well as the range of problems unsettled,

confirm the urgency of the selected research topic and enable to formulate its main aim and tasks.

**The object and the subject of the research.** The object of the research is economic and financial relations arising in the process of attracting investments in the oil and gas industry of Uzbekistan. The subject of the research is the processes, techniques, methods and ways of raising investment attractiveness at the enterprises of the oil and gas industry.

**Purpose and objectives of the research.** The aim of the research is to substantiate and develop theoretical approaches and practical recommendations on selecting the most efficient ways to raise the investment attractiveness of the oil and gas sector in Uzbekistan.

To achieve this aim, the following tasks have been set and solved in this research paper:

- the approaches of leading domestic and foreign theoretical schools towards the interpretation of the concept of investment attractiveness and its impact on the processes of international capital mobility have been generalized;
- the main trends and world experience in attracting and using foreign direct investments have been determined;
- the scale and structure of investments in the oil and gas industry have been analyzed;
- the basic focus areas of raising investment attractiveness and improving mechanisms for financing investments enterprises of the industry, including proposed measures to improve taxation of the oil industry in Uzbekistan to enhance their own investment resources, have been identified.

**Research methodology and methods** are based on the study of the dynamics of investment processes in the industry. The analysis and calculations have been made in reliance upon the basis of economic and mathematical methods, program-target and system analysis, as well as graphic-analytical techniques and methods of matrix modeling. The methods of financial and statistical analysis, the method of expert assessments, situational analysis and the method of abstract-logical assessment have been used as instruments at various stages of the dissertation re-

search, depending on the nature of the theoretical and practical problems being developed.

**The main provisions of the defence:**

- the technique for estimating efficiency of using the active part of fixed assets, which takes into account the peculiarities of the enterprise (Appendix 2);
- the measures on improving the system of operational management of fixed assets and control over their use;
- the technique for estimating the economic efficiency from the implementation of investment projects for the construction (reconstruction) of facilities (Appendix 1);
- the model (block diagram) of raising efficiency of using innovative potential at the enterprises of the fuel and energy complex of Uzbekistan;
- focus areas for improving state regulation of the mechanism for developing the investment attractiveness of the national oil and gas complex, including by improving investment legislation, introducing other promoting fiscal instruments.

**Scientific novelty of the dissertation** is comprised of the following:

- the assessment of the investment attractiveness of the oil and gas complex of Uzbekistan, which is considered one of the primary sources for the economic growth in the republic, is provided;
- the most efficient focus areas for improving state regulation of the mechanism for developing the investment attractiveness of the national oil and gas complex, including by improving investment legislation, introducing other promoting fiscal instruments, are substantiated;
- the technique for estimating the economic efficiency from the implementation of investment projects for the construction (reconstruction) of facilities has been elaborated;
- the technique for estimating the efficiency of using the active part of fixed assets, which takes into account the peculiarities of the enterprise has been elaborated;
- the model (block diagram) to improve the efficiency of the use of innovative potential at the enterprises of the fuel and energy complex of Uzbekistan has been developed.

**Theoretical and practical significance of the research** is represented by the fact that, in reliance upon the study of the foreign experience and analysis of the current state of attracting foreign investments in enterprises of Uzbekistan, practical recommendations have been elaborated and the proposals to raise investment attractiveness of securities of enterprises of the oil and gas complex of the Republic of Uzbekistan for expanding the scale and improving the quality of financial support for the processes of their restructuring and modernization, have been proposed.

In addition, the materials of the dissertation research can be used when delivering in the higher educational institutions such the academic subjects as “Management of investment projects”, “Financing of investment projects”, “Analysis of the efficiency of investment projects”, “Strategic planning”.

**Approbation and application.** The results of the research have been introduced: in the Unitary Subsidiary Enterprise “Ustyurtgaz” in the Republic of Uzbekistan (Implementation Certificate July 21, 2014); at the Banking and Finance Academy of the Republic of Uzbekistan (Implementation Certificate dated February 26, 2020); in “IGIRNIGM” JSC (Implementation Certificate dated February 25, 2020); in “O’ZLITINEFTGAZ” JSC (Implementation Certificate dated February 24, 2020).

The core results of the dissertation research have been included in the research and technical reports of “O’ZLITINEFTGAZ” JSC of “Uzbekneftegaz” JSC system: Problems of using the fixed assets of the enterprises of “Uzneftegazdobycha” JSC and the ways to solve them, dated 2007; Evaluation of the efficiency of investments placed in the development of oil and gas production and processing enterprises of “Uzneftegazdobycha” JSC and the measures to raise it, dated 2008; Monitoring and analysis of parameters for the development of the oil and gas industry, dated 2017; Analysis of the KPI system of “Uzneftegazdobycha” JSC and the measures to improve the system of key indicators, dated 2017; Analysis of the reporting data according to the statistic form “1 – innovatsiya shakli” (“1-innovation form”) for the enterprises of “Uzbekneftegaz” JSC and preparation of analytical information with conclusions and proposals for enhancing the innovative activity of the

industry enterprise, dated 2018; Elaboration of the Program for the development of priority areas of the oil and gas industry in Uzbekistan until 2045 with the account of the raw material base and the forecast of the balance of hydrocarbon raw materials consumption, dated 2019; Monitoring and making adjustments to programs for the development of the oil and gas industry in Uzbekistan in reliance upon the actually obtained outcomes, dated 2019.

In addition, the core results have been revealed in the development and amendment of the following instructions: RH 39.0-139-2017 Guidance document. Scientific and technical products. Appraisal of the economic efficiency of the use of scientific and technical achievements. 2018; NGH 39.0-118-2019; The procedure for crediting completed wells to fixed assets, dated 2020

The main content of the dissertation is reflected in 33 published works with a total volume of 21.6 printed sheets.

**Name of the organization where the dissertation work has been carried out.** The dissertation has been carried out at the Oil and Gas Research and Design Institute (NIPI “Neftegaz”) of the State Oil Company of the Republic of Azerbaijan.

**The total volume of the dissertation with a sign, indicating the volume of the structural units of the dissertation separately.** The dissertation consists of an introduction, three chapters, a conclusion, a list of references, 6 appendices and a list of abbreviations and graphical symbols, 4 graphs, 20 figures and 16 tables. The total volume of the dissertation constitutes 173 pages of computer text and accounts for 172377 characters, including the introduction – 10818 characters, chapters and paragraphs - 183526 characters, conclusion - 6876 characters.

## **GENERAL CONTENT OF THE DISSERTATION**

**The introduction** substantiates the urgency and degree of the development of the researched problem, determines the aim and tasks of the research, key provisions set for the defense, presents formulated scientific novelty, theoretical and practical significance of the research, as well as provides the information on approbation and implementation of the research results.

The first chapter **“Theoretical and methodological foundations**



**of investment attractiveness and introduction of advanced technologies”** is devoted to the outcomes of the research related to the study of aspects of investment attractiveness of the sectors of the economy (entities). In addition, this chapter presents the methodology, in which priority is given to a group of economic indicators, which constitute the basis of a system of indicators for the diagnostic assessment of investment attractiveness of the sectors of the economy (entities). The methodology for compiling the rating of investment attractiveness of the sectors of the economy (entities) includes the following stages.

The “investment attractiveness” category possesses a number of similar wordings in the economic literary sources: “investment climate”, “investment image”. However, they cannot be equated. The “investment climate” concept represents a set of economic, political, financial conditions that make an impact on the inflow of domestic and foreign investments in the national economy. On the other hand, the investment image is a complex reflection of various aspects of the investment climate in the views of investors. In our opinion, the system of investment activities includes the elements.

Based on the statements specified above, we can make a conclusion that *investment attractiveness is a complex economic category*. It can be considered at the level of a country, industry, region or enterprise, and the attention of all participants (subjects) of the investment process is focused on it, where each subject pursues its own interest.

With the aim of introducing advanced technologies, cutting-edge innovative ideas at the enterprise, it is required to develop an innovative strategy, which primary goals are demonstrated.

Ensuring sustainable development of enterprises in the oil and gas industry demands a precise determination of priority areas of activity, which requires appropriate financial resources to attract modern technologies for the search, production and processing of raw hydrocarbons.

The description of the volume of investments, analysis of their structure in horizontal and vertical directions is used to determine the investment attractiveness and enables to formulate a conclusion about a favorable (unfavorable) situation in the industry. The basic disadvantage of this approach is the perfunctory consideration of investment progress.

Each separately taken peculiarity of investments do not yet indicate the real state of the investment sphere, do not reflect the internal capabilities and prospects of the industry.

It is proposed to use a block, that assesses the economic and geographical position, natural resource potential, labor potential, economic potential, consumer market capacity, infrastructure potential, scientific and technical potential and investment risks, as final characteristic for evaluating investment attractiveness.

The second chapter of the dissertation is called «**Current state and problems of raising investment attractiveness of the oil and gas industry in Uzbekistan**». Currently the legislation of the Republic of Uzbekistan on investments is one of the most advanced in the system of legislation of the CIS countries. It includes the main provisions of international investment law, in particular, provisions on guarantees of the rights of foreign investors, as well as granting significant preferences for investors and others. The Law of the Republic of Uzbekistan “On guarantees and measures to protect the rights of foreign investors” ensures the inviolability and protection of property rights of foreign investors.

Uzbekistan possesses a huge investment potential. The President of Uzbekistan Shavkat Mirziyoyev, summing up the results of 2020, noted that the country managed to achieve the GDP growth in the amount of 7.8% compared to 2019. The industrial production in the republic has increased by 6.6 percent, agricultural production has grown by 6.8 percent. The volume of capital placements has increased by 9.6 percent. The inflation rate, which accounted for 5.7 percent, was within the normal limits. Foreign investors are expressing increasing interest in Uzbekistan - the flow of placements increased by 11.3 percent last year and amounted to 3.7 billion USD. In 2020, 164 large-scale investment projects were implemented in Uzbekistan, which cost has been estimated in the amount of 5.2 billion USD. The government has expected the GDP growth to be around 7.8 percent in 2021 as well. Over 16.6 billion USD have been invested in the economy. The volume of disbursed foreign investments and loans increased by 11.3 percent and exceeded 3.7 billion USD.

Currently particular attention in the industry is paid to attracting foreign direct investment in the implementation of projects for manufac-

turing of products with high added value, such as: polypropylene, polyvinyl chloride, polyurethane, polyethylene, etc.

The growing interest of investors in the countries of Central Asia (including Uzbekistan) and the South Caucasus is facilitated by the systemic development of regional integration projects, as well as transport infrastructure within the framework of a number of major projects, such as the “Silk Road Economic Belt”, “Southern Energy corridor”, “North-South”, TRACECA, etc.

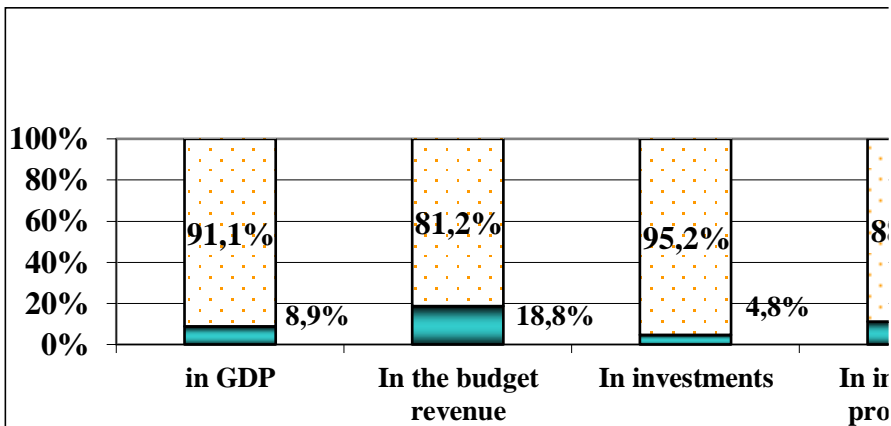
In reliance upon the results of the research of the Expert Center “Eurasian Development” for Uzbekistan, the following conclusions have been formulated.

- According to the aggregate ranking of countries by investment and credit international rating, Uzbekistan has been ranked 6.
- According to the aggregate ranking of countries by macroeconomic indicators Uzbekistan has been ranked 2.
- According to the aggregate ranking of countries by implementation of Economic Development Programs, Uzbekistan has been ranked 2.
- According to the aggregate ranking of countries by political stability, Uzbekistan has won a lead.

**One of the primary industries where foreign investment is demanded most of all, is the oil and gas industry of the Republic of Uzbekistan.**

*(All analyzes have been made according to the exchange rate of the Central Bank of the Republic of Uzbekistan “USD to UZS” for the reporting year: 2015 – 2422,4 UZS; 2016 – UZS; 2017 – 3231,48 UZS; 2018 – 8120,07 UZS; 2019 – 8339,55 UZS; 2020 – 9507,56 UZS).*

Currently the industry’s share in investments in fixed assets accounts for about 10 percent of their total volume in the Republic. Within the period from 2015 to 2020, the volume of the foreign trade turnover of “Uzbekneftegaz” JSC increased by almost 5.0 times and amounted to 4463.3 billion USD. In 2020, the share of exports in the total turnover accounted for 3597.8 million USD compared to 4872.6 million USD in 2015. The absolute growth of exports constituted 5-fold increase. The volume of imports increased 1.4 times, which indicates a growth in the industry’s independence from external supplies of products (Figure 1). Developed by the author in reliance upon the data of the State Committee of the Republic of Uzbekistan on Statistics for 2020



**Figure 1. The share of “Uzbekneftegaz” JSC in the economy of Uzbekistan**

**The investment attractiveness of the oil and gas industry is based on the following factors:**

The republic annually produces about 60.7 billion cubic meters of gas (ranked eighth in the world), 2.5 million tons of liquid hydrocarbons. Only 5% percent of the extracted raw materials are processed, over 600 thousand tons of liquefied gas, 500 thousand tons of polyethylene and 80 thousand tons of polypropylene are produced. The export potential of all currently produced gas constitutes 1.4 billion USD, and the organization of its processing into finished products (polyethylene, polypropylene and other petrochemical products) will increase the cost of finished products by 10 times.

The analysis implemented illustrates that the factors characterizing the “Development potential of industries” indicator make the greatest positive effect on the formation of an attractive investment climate for the industries specified above. In general, the factors of the indicator “Available structure of industries” have an average level of attractiveness.

The government of Uzbekistan consistently creates conditions for attracting all forms of foreign investment and supports cooperation implemented on priority investment projects.

As of January 1, 2021, **270** oil and gas fields were discovered in 5 oil and gas regions of the Republic of Uzbekistan, including 6 opened

in 2018. Out of these, **219** have gas deposits (free), 139 oil and **182** condensate. Out of the total, 107 are under development, 90 are prepared for development, 64 are being explored and 9 fields have been mothballed.

At the beginning of 2021, the Republic possesses industrial reserves (A + B + C1) of free gas in the amount of 1.88 trillion m<sup>3</sup> (including “Uzbekneftegaz” JSC - 1.10 trillion m<sup>3</sup> (58.8%), foreign companies - 0.78 trillion m<sup>3</sup> (41.2%)), oil (recovered) - 75.48 million tons (including “Uzbekneftegaz” JSC - 71.92 million tons (95.3 %), foreign companies - 3.55 million tons (4.7%)), condensate (extracted) - 77.85 million tons (including “Uzbekneftegaz” JSC - 53.49 million tons (68.7%), foreign companies - 24.37 million tons (31.3%)) (Table 3) At the current rate of annual extraction of hydrocarbons, the Republic's provision with proven reserves of ABC1 category is: for gas - 31 years, for oil - 101 years and for condensate - 43 years.

Nowadays, taking into account foreign companies, the annual production level constitutes about 60 billion cubic meters and liquid hydrocarbons more than 3 million tons per year. At the same time, the production volume of “Uzbekneftegaz” JSC is decreasing and in comparison with 2015 amounted to 41.2 billion tons of fuel equivalent against 72.16 billion tons of fuel equivalent. or by 43%, including for natural gas - by 41%, for oil - by 45%, and for condensate - by 52%.

The innovation system of the oil and gas industry, as if in miniature, repeats almost all the same shortcomings inherent in the National Innovation System as a whole:

- its functioning is aimed at solving individual specific tasks that are not subordinated to the general goal of innovative development;
- there is no single purposeful innovation policy, formalized in the form of a program document for the medium and long term. However, these programs do not provide for supplementary measures to promote development of local scientific potential, training and re-training of personnel, creating support structures and introducing innovations into production;
- financial resources shortage.

To develop measures to improve the efficiency of the use of innovative potential, it is required to use a model-scheme for raising efficiency of its use at enterprises of the fuel and energy complex, including

oil and gas industry of Uzbekistan.

Herewith, primary attention at the level of the oil and gas industry, as can be seen from the above diagram, should be paid to:

- **for the innovative capital market development** - formation of a list of innovative developments required for the industry, secured by demand, and monitoring of timely developments and the introduction of innovative developments;

- **for creating a regulatory framework** - development of regulations for the systematic certification of research and scientific-production personnel and, on this basis, the activation of the process of rejuvenating scientific personnel;

- **for promoting introduction of innovative developments** - transition from cost management to managing the results of innovative activities, increasing funding for innovative research, improving the incentive system for the creation and implementation of innovative developments.

The forecast for attracting investments for 2021 for 36 projects constitutes 23.6 billion USD, including foreign direct investments in the amount of 1724.3 million USD, 392.7 million USD of own funds, the amount of 333.5 million USD is represented by funds of the Fund for Reconstruction and Development and 335.65 million USD. 64.1 million USD are the loans extended from commercial banks and their development constitutes 514.6 million USD. The forecast for their development accounts for 22.3 billion USD.

In general, following the completion of work and commissioning of facilities for 12 projects in the current year, the following measures are scheduled: creation of 970 new jobs, including employment of 453 college graduates; commissioning of additional capacities for natural gas production, production of liquefied gas, gas condensate, gas desulfurization and provision of services for refueling vehicles with gas (13 CNG filling stations), as well as launching a unit for drying exported natural gas; production of goods worth more than 503.4 billion UZS and export of goods in the amount of 125.9 million UZS; to establish the production of new types of products, such as shut-off and control valves, polymer products, components for gas pumping units, heating and hot water boilers; commissioning of two gas pipelines with a length of 43 km and 9.5 km; purchase of special equipment for the line maintenance services

of “Uztransgaz” JSC for the urgent elimination of emergencies.

Assessment of the results of investing includes the parameters of investment projects, which are practically the same for all industries (Table 1), the volume of capital placements and the commissioning of fixed assets.

In reliance upon the dynamics of indicators on the commissioning of fixed assets and on investments in the industry, it can be concluded that for the commissioning of fixed assets for 1 UZS the need for investment is in oil and gas extraction accounts for 1.308 UZS, and in gas processing - 2.34 UZS. That is, fixed assets of gas processing enterprises are considered the most “costly or capital-intensive”.

**Table 1. Dynamics of investment and commissioning of fixed assets for oil and gas extraction (upstream) enterprises and gas processing plants of “Uzneftegazdobycha” JSC (in current prices in billion UZS)**

Years	Oil and gas extraction (upstream) enterprises		Gas processing plants		Overall by “Uzneftegazdobycha” JSC	
	Investments	Commissioning of fixed assets	Investments	Commissioning of fixed assets	Investments	Commissioning of fixed assets
2016	83,6	23,0	2,4	0,5	158,6	287,0
2017	80,3	76,9	23,5	18,9	256,4	149,4
2018	151,9	120,2	7,8	0,4	317,3	152,9
2019	311,9	282,0	16,9	5,1	381,2	350,9
2020	411,3	399,6	54,3	19,2	443,3	424,1
<b>Total</b>	<b>1190,9</b>	<b>910,4</b>	<b>109,5</b>	<b>46,8</b>	<b>1828,7</b>	<b>1460,8</b>
<b>The need for investments to ensure the commissioning of fixed assets in the amount of 1 UZS</b>		<b>1,308</b>	<b>2,340</b>		<b>1,252</b>	

A generalizing indicator for assessing the efficiency of investments in the industry is the coefficient of overall economic efficiency, which is calculated according to the following formula:

$$E_o = \frac{R}{I} \quad (1)$$

where:  $E_o$  - coefficient of overall economic efficiency;  $R$  – aggregate revenue of the industry, million UZS;  $I$  – investments made in the industry development, million UZS.

There is the chart of the interdependence of the types of activi-

ties of “Uzbekneftegaz” JSC. Considering the chart, it is impossible to make conclusions about the dependence of efficiency only on the volume of the investments. The factors for raising efficiency of investments are available in every unit of this chart.

A significant role in the enterprise management system is assigned to the management of fixed assets. The common goal of managing them is to raise profits through the efficient use of fixed assets and, due to this, to increase production and reduce costs (The author has developed the technique for estimating efficiency of using the active part of fixed assets with the account of the peculiarities of the producing enterprise (Appendix 2)).

The fixed asset management process includes: assessment of the fixed assets flow; assessment of the fixed assets structure; assessment of the fixed assets condition; assessment of the efficiency of using fixed assets; identification of weak points; development of operational measures to eliminate the problems detected.

The initial stage of the management of fixed assets is represented by the economic analysis of their flow, formation and use. It enables to assess their current state, identify problems and weak points, create an information base for subsequent planning and organization of the rational use of fixed assets.

**With the aim of further rise of the economic efficiency of investments in the oil and gas industry of Uzbekistan, as well as improving the system of operational management of fixed assets of oil and gas extraction enterprises, it is proposed to implement the following focus areas:** in order to further ensure the growth of reserves and production volumes of hydrocarbon raw materials, it is recommended to bring the volume of geological exploration to the level adequate to the needs of the industry; monthly calculate the influence coefficient by each group of fixed assets with a low coefficient and make operational urgent decisions on their active involvement in the production process.

**The third chapter is called “Key focus areas of raising investment attractiveness of enterprises of “Uzbekneftegaz” JSC”.** The most important precondition for the growth of the impact of the skillful use of the potential of targeted financing instruments for the needs of innovative development by enterprises of the oil and gas industry of Uz-



Uzbekistan is that during recent years the flow of budgetary funds that the government used to allocate to support promising domestic enterprises has noticeably decreased in the republic.

Abandoning this practice has been caused not only by budgetary restrictions, but also by the realization of the fact, that in the majority of joint-stock enterprises in recent years, most of the shares previously owned by members of labor collectives, and then by the government, has been transferred under the control of external majority investors, so-called stockholders – the owners of controlling stock interests. These investors are not interested in attracting investments through additional issue of shares due to the fear of losing control over their joint stock company. In this regard, the government challenged the problem of seeking a more efficient management of its public assets invested in shares of this category of joint-stock companies.

None a single well-known foreign company, particularly a private one, will enter a market where there are no deep reforms, where the necessary guarantees and prospects for investing capital have not been created, which, in turn, hold us liable to systematically and deeply deal with issues of developing the most favorable conditions for foreign investments.

A significant role in attracting foreign investment for the needs of innovative development of oil and gas enterprises due to the securities market instruments is assigned to the newly established “Uzinfoinvest” - the Agency for Information Support and Assistance to Foreign Investors founded under the Ministry of Foreign Economic Relations, Investments and Trade. This Agency is aimed at not only providing comprehensive information to foreign business circles about the current investment climate in the republic, but also render them overall assistance in the implementation of projects.

One of the areas to raise competitiveness of oil and gas enterprises is to radically improve their financial condition, rational and efficient use of available resources.

The next set of criteria includes such important factors as expenses on wages and labor productivity; opportunities for short- and long-term lending; conditions for a foreign investor to contribute his share in the capital. There are conditions in the middle of the pyramid, which can

make an impact on the decision of investors as well. This is the attitude towards foreign investment and profits; the state of the balance of payments. Furthermore, this includes clauses that take into account possibilities of implementing the contract.

Improvements in the investment climate and investment attractiveness ensure the development of the investment process, but this would not have been possible without the development and improvement of investment financing mechanisms. These mechanisms should reflect primary strategic priorities of regulation, and in general, the entire mechanism should be disclosed in special investment programs. However, that's not all. Investment financing mechanisms should be detailed at all levels including the workplace. At the most junior level, these definitely represent not simply programs, but specific regulatory impacts.

As the practice has demonstrated, when implementing investment projects, the actual results are nowhere near the designed ones (The author has developed the technique for evaluating economic efficiency of the implementation of investment projects for the construction (reconstruction) of facilities (Appendix 1)).

This is associated with a number of both external and internal factors: prices for material and technical and fuel and energy resources; changes in customs policy and taxation system; fluctuations in the exchange rate; level of actual inflation; financial capabilities of consumers of products; prices for the company's products, etc. As a result, the financial results of the enterprise or the results of the operation of the commissioned object are subject to change, and the economic efficiency of the investments changes as well.

Analysis of the study of the current methods for evaluating efficiency of investments has enabled to develop **the mechanism for its generalized assessment of the results of the implementation of an investment project in reliance upon the actual performance indicators of the corresponding enterprise or its facility** Анализ изучения существующих методик оценки эффективности инвестиций, позволил сформировать механизм её обобщающей оценки результатов реализации инвестиционного проекта на основе фактических показателей деятельности соответствующего предприятия или его объекта (Appendix 1).

For a generalized evaluation of the efficiency of investments, it is required to make calculations that include the following indicators: budgetary efficiency; social efficiency; economic efficiency; cumulative financial effect.

**Budget efficiency** indicator ( $E^t_{\text{budget}}$ ) is obtained budgetary effect. **Social efficiency** ( $E^t_{\text{social}}$ ) is understood as a positive consequence of the implementation of an investment project within the relevant territory.

**Economic effect** from the investment project implementation ( $E^t_{\text{econom}}$ ) calculated according to the usual formula, that is, the ratio of net profit to invested investment resources.

The summarizing financial effect from the implementation of the investment project should be calculated according to the following formula:

$$FE = E^t_{\text{budget}} + E^t_{\text{social}} + E^t_{\text{econom}} \quad (2)$$

where,  $E^t_{\text{budget}}$  - budgetary effect from the implementation of the investment project, thousand UZS;  $E^t_{\text{social}}$  – aggregate social effect from the implementation of the investment project, thousand UZS;  $E^t_{\text{econom}}$  – economic effect from the implementation of the investment project, thousand UZS.

Thus, the use of the proposed mechanism for a generalized assessment of the effectiveness of the implementation of an investment project will give a real picture of the effect of investment (Developed by the author “METHODODOLOGY for assessing economic efficiency from the implementation of investment projects for the construction (reconstruction) of facilities” (Appendix 1).

All available opportunities should be used to attract investments, in particular, it is advisable to use the practice of entering into direct investment contracts with major foreign investors for the implementation of investment projects.

Thus, we can conclude that for the further sustainable development of the oil and gas industry of Uzbekistan, measures are required to raise its investment attractiveness in two areas: undertaken by the state - with decision-making at the government level, and by the industry enterprises - aimed at using internal reserves for the development (Figure 2.).

Establishment of financial and industrial groups can contribute to raising investment attractiveness. They can become a key element in the development of the industry.

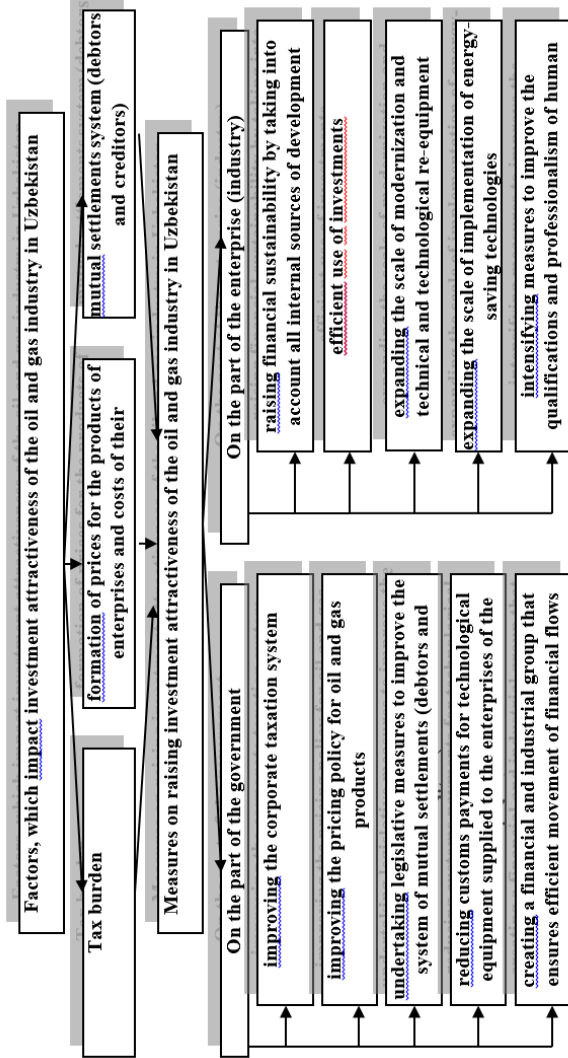


Figure 2. Factors, which make an impact affecting the investment attractiveness of the oil and gas industry of Uzbekistan and measures to improve it (compiled by the author).

## CONCLUSION

**The conducted research has enabled to develop the following conclusions and proposals:**

1. Investment attractiveness represents a set of conditions and factors of the socio-economic, legal and political environment developed in the country, ensuring sustainability and efficiency of investment in various sectors of the economy.

Investment attractiveness is considered one of the constituent elements of the investment climate. In addition, it is still an inadequately studied focus area of economic research in the oil and gas complex of Uzbekistan.

2. As a basis for assessing investment attractiveness, it is advisable to use the matrix by M. Porter, which includes the assessment of the target market and strategic advantages of investment investments. In reliance upon this fact, the paper proposes a system of indicators for assessing internal and external factors of raising competitiveness and investment attractiveness of the oil and gas complex of Uzbekistan.

3. The comparative analysis of the current techniques for assessing investment attractiveness illustrates that the oil and gas industry requires a special technique based on the assessment of the following areas: economic and geographical location; natural resource potential; labor potential; economic potential, as well as financial and economic condition of the industry. A real assessment of the capacity of the consumer market is required; infrastructure potential; research and technical potential; investment risks; investment conditions; the development degree of the legal framework, availability of mechanisms for guarantees and protection of investments and the level of their coverage; political, social, economic and environmental risks.

4. In order to develop a favorable investment climate in due time in the industry that will attract foreign and domestic investors, it is required to undertake such measures of the government support as:

- undertaking measures to improve the system of mutual settlements, and first of all, by establishing equal responsibility for the occurrence of receivables and payables;
- reconsidering customs payments for technological equipment supplied to oil and gas enterprises towards their reduction;

- we consider it possible to create a financial and industrial group capable of using new efficient mechanisms of interaction between enterprises in the industry and arranging appropriate movement of financial flows.

5. There is a need for a shift to modern forms and mechanisms of financing research activities and supporting innovative activities, which should provide for the implementation of the following measures for the purpose of innovative development:

**First**, a gradual increase in the volume of budgetary funding for research and innovation support with the account of introducing the criteria for their efficient use.

**Second**, concentration of funds on financing particularly important fundamental and applied research conducted by research teams.

**Third**, in the field of industry-based higher education, it is required to ensure concentration of grant resources for the implementation of educational programs within the priority focus areas of development of science, reengineering and technology required by the industry, to provide grant funding to individuals (researchers) in new important areas of the research development, as well as for registration of patents for R&D results.

6. Mechanisms of direct partnership with private capital should be included along with the instruments of indirect incentives under conditions of low innovation activity.

It is required to develop fiscal instruments that provide significant benefits in the implementation of research and development, financing the initial stages of innovation projects. Long-term financing on a repayable basis at a low interest rate, insurance of investment projects can constitute an important step. Thus, through the appropriate institution the industry will share the risks peculiar to innovation projects with the entrepreneur and private investor.

7. At the level of the oil and gas industry particular attention should be paid to:

–**for the innovative capital market formation** – compiling the list of innovation developments necessary for the industry, secured by demand, as well as monitoring of timely developments and the introduction of innovation developments;

– **to create a regulatory and legal framework** - development of regulations for systematic certification of the research and research, development and production personnel and, on this basis, activation of the process of rejuvenating scientific personnel;

– **to promote introduction of innovation developments** - transition from cost management to managing the results of innovation activities, raising funding for innovative research, improving the incentive system for the creation and implementation of innovation developments.

8. It is required to elaborate a special industry-based strategic program to develop competition and create conditions for expanding capacity of the industry-based innovation capital market. First of all, it should cover the issues of creating required regulatory framework for innovation, should provide solving topical issues of promoting production within the affairs of commercialization and introduction of new equipment and technologies, manufacturing of modern science-intensive competitive products and development of exports.

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