

IRSTI 06.71.03

A.A. Razakova¹, M.A. Yelpanova², S.B. Shoshanov³
^{1,2}Korkyt Ata Kyzylorda State University, Kyzylorda, Kazakhstan
³Satpayev University, Almaty, Kazakhstan
(E-mail: madiel61@mail.ru, akhanova_aa@mail.ru)

The efficiency of outsourcing and the issues of its USE in the activities of oil and gas companies

Abstract. Transfer of supporting business processes is a widely used business practice worldwide. The basis of management of any business is the development of strategy, its adaptation to the specifics of the company and implementation. The process of strategy development is based on a thorough study of all possible directions of development and activity and consists in the selection of the general direction, mastered markets, served needs, methods of competition, attracted resources and business models. One of the strategic methods aimed at improving the efficiency of the company is to outsource non-critical business processes and production facilities of the company. The article highlights the problems of outsourcing in the activities of oil and gas companies in Kazakhstan, as well as the authors give some recommendations to solve the problems, namely, the features of the organization of production in the oil and gas industry, a procedural model to ensure the competitiveness of oil and gas industry, the mechanism of reengineering of oil and gas industry. The research methods are used: comparison and analogy; unity of objective and subjective in the development of economic processes; expert assessments; content-analysis of documents and research materials.

Keywords: outsourcing, oil and gas company, efficiency, strategy, business- process, issues, development, reengineering

DOI: <https://doi.org/10.32523/2079-620X-2019-3-37-45>

Today the development of the oil and gas industry plays an important role in the economy of the Republic of Kazakhstan. Revenues from the oil and gas industry are the basis of the entire budget of the country. The work of oil and gas enterprises depends on the implementation of state development programs on the scale of both the regions and the state as a whole.

From the total volume of proven and recoverable oil reserves in Kazakhstan, the share of deposits in Kyzylorda region is slightly less than 5% [1]. The largest oil fields in the region include Akshabulak, Kumkol, Konys and North-West Kyzylkiya. At the moment, 14 oil and gas companies are registered in Kyzylorda region, developing 59 oil and gas fields (6% of the total number of fields in Kazakhstan). In recent years, the volume of production in the region annually decreases. The largest companies in terms of oil and gas condensate production in the region are LLP «JV «Kazgermunai», JSC «Petro Kazakhstan Kumkol resources», LLP «Kolzhan», JSC «Turgay petroleum» and LLP «South-oil». These five companies account for more than 80% of total oil and gas condensate production. The largest volumes of gas production are accounted for by such companies as LLP «JV «Kazgermunai», JSC «Petro Kazakhstan Kumkol resources» and LLP «JV «KuatAmlonMunai». Kyzylorda region ranks fifth in terms of oil and gas condensate production in the country. At the same time, due to the transition of most of the fields of the region to the third and fourth stages of development in the absence of measures to increase and maintain the level of extraction, the volume of oil and gas production in this area will continue to decline. In such circumstances, it is necessary to develop measures to improve the efficiency of oil and gas companies.

The oil and gas company can hold a series of events to improve the efficiency of its activities. The main activities in this regard are: the formation of a long-term development strategy for the company; implementation of measures for the implementation of effective management;

development of measures aimed at increasing profitability and increasing the value of company assets, etc. The management of any business is based on strategy development, its adaptation to the specifics of the company and its implementation. The company's strategy is a comprehensive management plan that should strengthen the company's position in the market and ensure coordination of efforts, attraction and satisfaction of consumers, successful competition and achievement of global goals [2]. The process of developing a strategy is based on a thorough study of all possible directions of development and activity and consists in choosing a general direction, developed markets, served needs, competition methods, attracted resources and business models. In other words, strategy means that a company chooses its development path, markets, methods of competition and business.

One of the strategic methods aimed at improving the efficiency of the company is outsourcing nonessential business processes and production facilities of the company. The transfer of supportive business processes is a widely used business practice worldwide.

Outsourcing (from English outsourcing: (outer-source-using) using an external source / resource) - transfer by an organization, on the basis of an agreement, certain business processes or production functions to serve another company specializing in the relevant area [3]. In contrast to service and support services that are one-time, episodic, random and limited to the beginning and the end, outsourcing usually takes over the functions of professional support for the consistent operation of individual systems and infrastructure on the basis of a long-term contract. The presence of a business process is a hallmark of outsourcing from various other forms of provision of services and user maintenance.

The main source of cost savings through outsourcing is to increase the efficiency of the company as a whole and the opportunity to release the appropriate organizational, financial and human resources to develop new areas, or focus on existing ones that require increased attention [4].

We can single out several current business processes from the category of supportive ones, the outsourcing of which will not only allow the company to gain financial resources, but also optimize the current staff in the company. Among the business processes that, in our subjective opinion, can be outsourced primarily the following: to carry out tax accounting; to carry out accounting; manage engineering staff; to carry out legal support.

Disadvantages of outsourcing: it creates the need to work with people who are not involved in the work of the company; the purchase of ready-made solutions can entail the loss of direct control and makes the business process dependent on the contractor, especially if it comes to IT-technologies, accounting services, HR record management; increase in the cost of services of the outsourcer company [5]. It is necessary to correctly compare the costs of maintaining your own unit and the cost of services to a third party; it is also necessary to note the likelihood of breach of confidentiality when outsourcing a number of services. Such situations are possible, for example, if the same employees are involved in providing services to several companies.

Outsourcing provides a number of significant advantages: the ability to concentrate on core and key areas of activity; cost reduction. Depending on the type of outsourcing, the reduction of expenses for non-core areas of the company's activities can be from 10 to 40%; obtaining a higher quality of work or services. As a rule, works (services) outsourced are specialized for an outsourcer, specialists have high professional competence, processes are automated and equipped with necessary software products; quick ready solutions. An enterprise from outsourcers receives in a short time ready solution, an independent search of which would require a lot of time and human resources and resources.

In the oil and gas industry, outsourcing for outsourcing of oil and gas production services, as well as geological exploration and test drilling, has become most prevalent. As is known, in the field of providing such services, the world leader is a service company Halliburton. The oil and

gas industry in Kazakhstan has a number of negative trends, such as a reduction in exploration and production drilling, a decline in the quality of the resource base, a high degree of depletion of production reserves, and a distortion in the proportions between reserves and oil production. Within oil and gas enterprises in the field of management, the trend of concentration of non-core business processes continues. This leads to the need to apply the outsourcing process in oil and gas companies.

Today in Kazakhstan there are several reasons hindering the development of the outsourcing market. These include: the lack of practice of concluding long-term outsourcing contracts; the merging of the concepts of outsourcing and outstaffing [6]; the lack of economic justification for the profitability of its own production or acquisition on the side, allowing to make a decision on outsourcing the expectation of a significant reduction in production costs from outsourcing; lack of professional personnel in the field of outsourcing, both from the customer and from the suppliers; high competition from foreign companies in the field of creation and application of new high technologies, production and supply of the latest oil and gas process equipment; low competitiveness of domestic specialized enterprises.

The obstacle to outsourcing in the oil and gas sector may be that doing business requires an extremely high level of management organization: competent strategic planning and professional operational management, clear financial management and reliable quality control mechanisms at all levels of raw materials development. Unfortunately, these requirements are now rarely met by management in both customer companies and executing companies.

To improve the efficiency of oil field development, enterprises conduct a large number of measures to increase the intensification of oil production and oil recovery. The list of measures, depending on the specific geological and field conditions in different oil companies, is quite large and reaches several hundred. When carrying out a complex of works, a significant amount of advanced technologies is being developed on the effects on the formation and the bottom hole formation zone, methods for carrying out complex repair and insulation works in wells, new equipment, equipment, tools, etc. are being introduced. They all increase the efficiency of oil production, increase labor productivity, reduce the complexity of the operations, which ultimately leads to an increase in production efficiency in the early stages of field development.

Deposits in the late stage of development are characterized by a deterioration in the structure of hydrocarbon reserves, and in order to maintain high values of the efficiency of development management methods, it is necessary to conduct an in-depth analysis of the results of previous work and make recommendations to improve their effectiveness in the planned period. It should be borne in mind that at the final stage, the annual net income goes into a negative unprofitable phase and only due to accumulated positive values in previous periods can a positive value be maintained for the entire design period of the field development. The economic efficiency of the events is influenced by a rather large number of factors. Of the main groups of factors, it is necessary to note the mining and geological, technological, economic and environmental. These factors affect the cumulative costs of carrying out activities, the subsequent operation of deposits.

The greatest impact on the economic result of the implementation of the event have: an increase in production; costs of implementing the event; the water content of the extracted products; the cost of oil production; including semi-variable costs; oil sales price and the current tax system. At the same time, the oil company, as a rule, cannot influence the price of oil, which is formed on the world and domestic markets, as well as on the amount of tax payments, which are regulated by the current legislation. The subsoil user has the opportunity to improve the efficiency of oil production and ongoing activities by regulating and reducing costs.

Particular relevance is acquired by the problems of taking into account the peculiarities of petroleum products and factors affecting its quality from the standpoint of improving the efficiency of business processes. If we consider all types of industries that form the cycle of development of

oil and gas resources, then we can be convinced of the significant diversity of products (works) and technological processes that are carried out in each individual link in this cycle. Thus, in the process of geological exploration (the initial part of the cycle), the main types of products are increments of open reserves (resources) of oil and gas, as well as geological information, then in oil refining, one of the final parts of the cycle is the range of oil products (target products).

Each product (work) has very significant features related to the specifics of the object of labor and the nature of its processing (Table 1).

Table 1

Features of the organization of production in the oil and gas industry

Production methods				
Geological prospecting work	Drilling	Exploitation	Transportation	Refinery
Products				
1. Received information 2. Proven reserves (resources)	1. The added new reserves, extracting capacity 2. Completed by the construction of the wellsite	1. Volume of exploited oil, gas, gas condensate	1. Products are not created (oil, gas, oil products are being moved)	1. Oil products
Products (works) feature				
1. Does not require transportation (except information resources) 2. High labor intensity.	1. Does not require transportation and storage. 2. High capitalization ratio	1. Fixed production 2. Lack of work in progress	1. Hard link with production and consumer. 2. Fixed transfer volume. 3. High capital intensity	1. High energy ratio
Subject of labor				
The territory to be explored, drilled wellsite	Drilled rock formation	Oil and gas contained accumulation, pay formation	Pumped oil, gas, oil products	Crude oil, associated and natural gas
Processing features of the subject of labor				
1. Dispersion 2. Influence of climatic conditions 3. Seasonality 4. Stadiality	1. Territorial fixity and apartness 2. Influence of natural conditions (climatic, geological features) 3. The distance of the subject of labor from the performer 4. Process continuity 5. The need to move heavy bulky equipment	1. The ability to maneuver the flow of oil, gas 2. Process continuity	1. The possibility of maneuvering the flow of oil, gas 2. Process continuity	1. Process continuity 2. Complexity of the process 3. Short production cycle 4. Carrying out the process in closed apparatus at high temperatures and pressures 5. High fire and explosion hazard
Note – compiled from the source [7, p.69]				

In such industries as exploration, drilling and oil production, the peculiarities of the subject of labor that affect the nature of its processing, and, consequently, the organization of the production process and, ultimately, product quality, is the effect of the natural factor, the dispersion of production facilities, territorial fixation and isolation the subject of labor, its distance

from the performer.

In Kazakhstan, the assessment of the efficiency of the transfer of business processes is almost limited to considering only the financial component of the net effect. This is a big drawback for oil and gas companies, as their scale and specialization have serious political, socio-economic and environmental consequences.

Reengineering of business processes of a company is one of the tools to improve the efficiency of management systems of oil companies, their financial and economic activities, and, consequently, increase their competitiveness [8]. Reengineering of business processes in the management of an enterprise is used to solve the following tasks: increasing the market attractiveness of products and services; increasing competitiveness with foreign enterprises and monopolists; cost structure improvement; updating production assets; improvement of the social sphere; elimination of the problem of shortage of working capital [9].

For us reengineering is the redesign of the use and distribution of material, technological, financial, human resources of an enterprise on the basis of connection, division, liquidation of structural divisions, organization of new, connection of other enterprises.

The characteristics of integrated enterprises of the oil and gas industry, traditionally consisting of core and non-core business processes, under certain circumstances may reduce their efficiency and competitiveness (Figure 1).

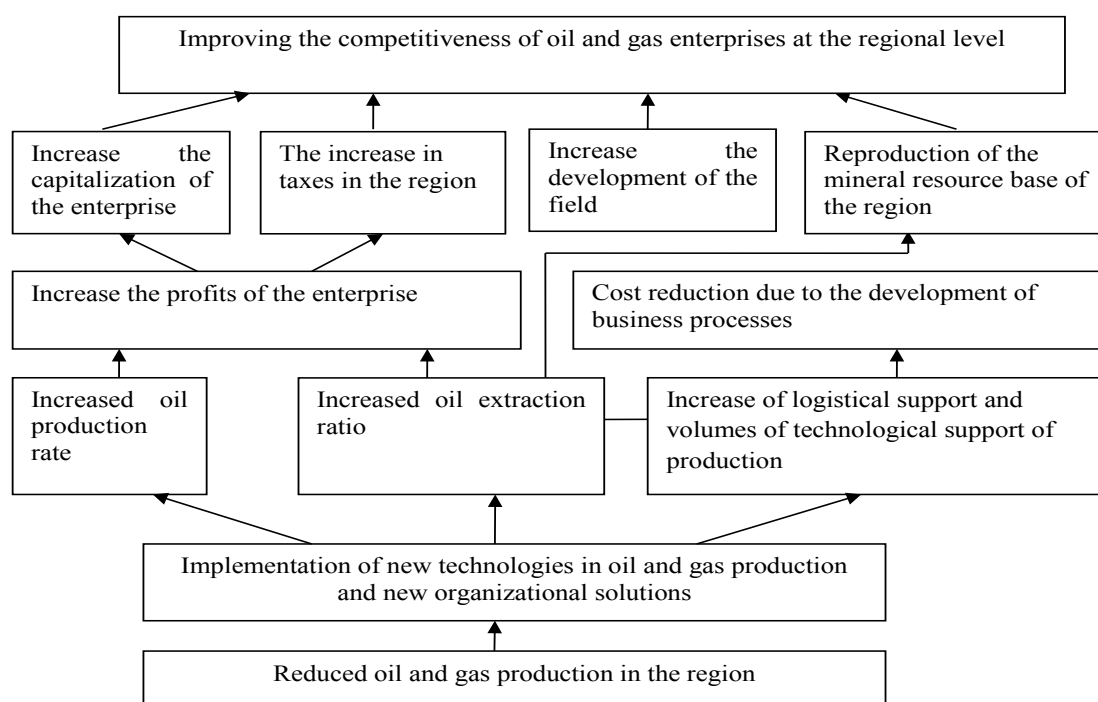


Figure 1. Procedural model of ensuring the competitiveness of oil and gas companies

Note: compiled by the author

The advantage of this model is that the introduction in the production process of new technologies in oil and gas production and new organisational solutions will certainly provide an opportunity to increase profits and decrease costs through development of business processes, which will undoubtedly lead to an increase in the specific economic and technical indicators of the industry that will ensure the competitiveness of the enterprises of the oil and gas industry. The disadvantage of the proposed procedural model is that the whole process will be implemented in the case of ensuring the introduction of the innovation process in the development of the industry.

Such enterprises have overestimated the costs of maintaining production capacities along all links of the production chain, which, while reducing the demand for their final products, leads to an unstable financial situation.

The uneven development of individual divisions of the company leads to an imbalance of their production capacity, the containment of technical progress and the innovation and production potential of the enterprise as a whole (Fig. 2). Divisions of a company delivering within a company are isolated from market mechanisms, their services and products may be more expensive and worse in terms of the quality of similar products and services of competitors. For oil and gas companies the most economically feasible to meet transportation and technological needs through the services of third-party enterprises.

To solve the problem of one-sided economic evaluation of the effectiveness of the implementation of outsourcing in the Kazakh oil and gas industry, in our opinion, it is necessary to conduct a strategic analysis of groups of various factors. This is a study of the general state of the oil and gas company, financial resources, the level of management of departments, the volume of services consumed, the transparency of the company. Consideration of the activities of service units: production facilities, the need for personnel, the technology used. The study of domestic and foreign markets, the availability of independent service companies, contractors, the level of demand for products (oil prices, etc.)

Establishing all of these factors will give an initial idea of the desirability of transferring some of the functions to the implementing companies. Then calculate the most important indicators, which reflect their values before and after outsourcing.

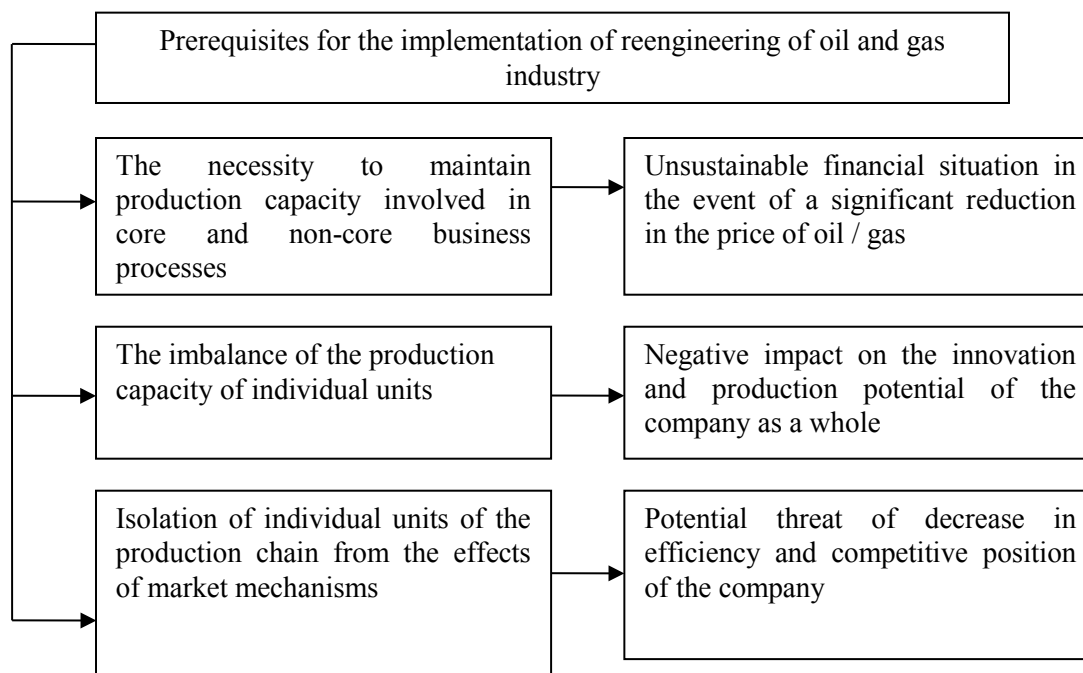


Figure 2. Prerequisites for the implementation of reengineering of oil and gas industry
 Note: compiled by the author.

It should be noted that the solution of most problems on the effective implementation of outsourcing in the oil and gas industry of Kazakhstan will be the development of a formal regulatory framework at the state level, since the majority of transactions on the transfer of functions of organizations is based on the examples of Western oil companies. At the same time,

the responsibility of partners is not enshrined in law, that the leadership of oil and gas companies have to worry about the transfer of their business processes. Among the business processes that, in our subjective opinion, can be outsourced in the first place the following: to carry out tax accounting; to carry out accounting; to manage innovative technologies; to carry out legal support.

Список литературы

- 1 Данные АО «Информационно-аналитический центр нефти и газа». URL: <https://www.iacng.kz/ru/> (Даты обращения: 20.03.2019)
- 2 Иванов П.В., Современный стратегический анализ: учебное пособие.– и др. Ростов н/Д: Феникс, 2014. – 589 с.
- 3 Бадалова А.Г., А.В. Пантелеев Управление рисками деятельности предприятия - М.: Вузовская книга, 2015. – 236 с.
- 4 Хейвуд Дж.Б. Аутсорсинг: в поисках конкурентных преимуществ. / Дж.Б. Хейвуд. // М.: Издательский дом «Вильямс», 2012. - 176 с.
- 5 Бравар Ж.Л. Эффективный аутсорсинг. Понимание, планирование и использование успешных аутсорсинговых отношений // Баланс Бизнес Букс: 2013. - 475 с.
- 6 Аникин Б.А., Рудая И.Л. Аутсорсинг и аутстаффинг: высокие технологии менеджмента: Учебное пособие. – М.: ИНФРА-М, 2006. – 288 с.
- 7 Сыромятников Е.С. Управление качеством на предприятиях нефтяной и газовой промышленности: Учеб. пособие. - М.-Ижевск: НИЦ «Регулярная и хаотическая динамика», 2001. - 175 с.
- 8 Тельнов Ю.Ф. Реинжиниринг бизнес-процессов. Компонентная методология. – 2-е изд., перераб. и доп. – М.: Финансы и статистика, 2004. - 320 с.
- 9 Business process reengineering/ URL: <http://www.grandars.ru/college/biznes/reinzhiniring.html>. (Дата обращения: 28.03.2019)

А.А. Разакова¹, М.А. Елпанова², С.В. Шошанов³

^{1,2}*Қорқыт Ата атындағы Қызылорда мемлекеттік университеті, Қызылорда, Қазақстан*

³*Сәтбаев Университеті, Алматы, Қазақстан*

Аутсорсинг тиімділігі және мұнай-газ компанияларының қызметінде пайдалану

Андағпа. Мақалада әлемдік бизнес жүргізу тәжірибесінде кеңінен қолданылатын - қосалқы бизнес-үдерістерді беру тәжірибесі талданады. Кез келген бизнесті басқару негізінде стратегияны әзірлеу, оны компанияның ерекшелігіне бейімдеу және іске асыру. Стратегияны әзірлеу үдерісі даму мен қызметтің барлық ықтимал бағыттарын мұқият зерделеуге негізделеді және жалпы бағытты, игерілетін нарықтарды, қызмет көрсетілетін қажеттіліктерді, бәсекелестік әдістерін, тартылатын ресурстар мен бизнес үлгілерін таңдаудан тұрады. Компания қызметінің тиімділігін арттыруға бағытталған стратегиялық әдістердің бірі-аутсорсингке компанияның сынсыз бизнес-үдерістері мен өндірістік объектілерін беру болып табылады.

Мақалада Қазақстанның мұнай-газ компанияларының қызметінде аутсорсингті пайдалану мәселелері қамтылған, сондай-ақ, авторлар мәселелерді шешу бойынша кейбір ұсыныстарды берді. Атап айтқанда, мұнай-газ саласындағы өндірісті ұйымдастыру ерекшеліктері қарастырылып, мұнай-газ өндіру саласындағы кәсіпорындардың бәсекеге қабілеттілігін қамтамасыз етудің процедуралық үлгісі, мұнай-газ өнеркәсібі кәсіпорындарының реинжинирингін іске асыру тетігі ұсынылды. Зерт-

теу әдістері: салыстыру және аналогия; экономикалық үдерістердің дамуындағы объективті және субъективті бірлік; сараптамалық бағалау; зерттеу құжаттары мен материалдарын контент-талдау.

Түйін сөздер: аутсорсинг, мұнай-газ компаниясы, тиімділік, стратегия, бизнес-үдеріс, мәселелер, даму, реинжиниринг.

А.А. Разакова¹, М.А. Елпанова², С.В. Шошанов³

^{1,2}*Кызылординский государственный университет имени Коркыт Ата, Кызылорда, Казахстан*

³*Университет Сатбаев, Алматы, Казахстан*

Эффективность аутсорсинга и проблемы его использования в деятельности нефтегазовых компаний

Аннотация. Передача вспомогательных бизнес-процессов - это широко применяемая практика ведения бизнеса во всем мире. В основе управления любым бизнесом лежит разработка стратегии, ее адаптация к специфике компании и реализация. Процесс выработки стратегии основывается на тщательном изучении всех возможных направлений развития и деятельности и заключается в выборе общего направления, осваиваемых рынков, обслуживаемых потребностей, методов конкуренции, привлекаемых ресурсов и моделей бизнеса. Одним из стратегических методов, направленных на повышение эффективности деятельности компании является передача в аутсорсинг некритичных бизнес-процессов и производственных объектов компании. В статье освещены проблемы использования аутсорсинга в деятельности нефтегазовых компаний Казахстана, также авторами даны некоторые рекомендации по решению проблем, а именно: рассмотрены особенности организации производства в нефтегазовой отрасли, предложены процедурная модель обеспечения конкурентоспособности предприятий нефтегазодобывающей отрасли, механизм реализации реинжиниринга предприятий нефтегазовой промышленности. Использованы методы исследования: сравнение и аналогия; единство объективного и субъективного в развитии экономических процессов; экспертные оценки; контент-анализ документов и материалов исследования.

Ключевые слова: аутсорсинг, нефтегазовая компания, эффективность, стратегия, бизнес-процесс, проблемы, развитие, реинжиниринг.

References

- 1 Danye AO «Informacionno-analiticheskij centr nefti i gaza [Data of JSC «Information and analytical center of oil and gas»]. [Electron. resource]. Available at: <https://www.iacng.kz/ru/> (Accessed: 20.03.2019).
- 2 Ivanov P.V. Rostov Sovremennyj strategicheskij analiz: uchebnoe posobie [Modern strategic insight: study letter] (Rostov n/D, Feniks, 2014, 589 p).
- 3 Badalova A.G., Panteleyev A.V. Upravlenie riskami dejatel'nosti predpriyatija [Risk management of enterprise performance] (Academic book, Moscow, 2015, 236 p.)
- 4 Haywood J.B. Outsorsing: v poiskah konkurentnyh preimushhestv [Outsourcing: in search of competitive advantages] (Publishing house «Williams», Moscow, 2012, 176 p.)
- 5 Bravar J.L. Jeffektivnyj outsorsing. Ponimanie, planirovanie i ispol'zovanie uspešnyh outsorsingovyh otnoshenij [Effective outsourcing. Understanding, planning and using successful outsourcing relationships] (Balance Business Books, 2013, 475 p.)
- 6 В.А. Анкин, И. Л. Outsorsing i autstaffing: vysokie tehnologii menedzhmenta: Uchebnoe posobie [Rudaya Outsourcing and outstuffing: high technologies of management: Study letter] (INFRA-M, Moscow, 2006, 288 p.)

- 7 Syromyatnikov E.S. Upravlenie kachestvom na predpriyatijah neftjanoj i gazovoj promyshlennosti: Ucheb. posobie [Quality control at the enterprises of oil and gas industry: Study letter] (Izhevsk: RC «Regular and chaotic dynamics», Moscow, 2001, 175 p.)
- 8 Telnov Yu. Ph. Reinzhiniring biznes-processov. Komponentnaja metodologija. 2-e izd., pererab. i dop. [Business process reengineering. Competent methodology. 2 revised and enlarged edition] (Finance and Statistics, Moscow, 2004, 320 p.)
- 9 Business process reengineering. [Electron. resource]. Available at: <http://www.grandars.ru/college/biznes/reinzhiniring.html>. (Accessed: 28.03.2019).

Сведения об авторах:

Разакова А.А. – э.ф.м., Қорқыт Ата атындағы Қызылорда мемлекеттік университетінің докторанты. Айтеке би, 29 А, Қызылорда, Қазақстан.

Елпанова М. А. – э.ф.к., Қорқыт Ата атындағы Қызылорда мемлекеттік университеті, «Экономика және менеджмент» кафедрасының доценті, Айтеке би, 29 Қызылорда, Қазақстан.

Шошанов С.Б. – э.ф.м., Қ.Сәтбаев университетінің докторанты, Қ.Сәтбаев көшесі, 22 а., Алматы, Қазақстан.

Razakova A.A. - Master of Economics, doctoral student of Korkyt Ata Kyzylorda State University, Aiteke bi, 29 A, Kyzylorda, Kazakhstan.

Yelpanova M.A. – PhD, associate professor of departments «Economics and management» Korkyt Ata Kyzylorda State University, Aiteke bi, 29 A, Kyzylorda, Kazakhstan.

Shoshanov S. B.- Master of Economics, doctoral student of Satpayev University, Satpayev st., 22a, Almaty, Kazakhstan.