



# Improvement of Work with Personnel as a Factor of Increasing Business Efficiency

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## ABSTRACT

The article is devoted to issues on improving the system of managing personnel of the gas and oil company on the basis of the fuller use of scientific approaches and methods. In the article the basic emphasis is made on the need to implement principles of the system approach when improving work with the research most fully reveals the issues related to improving the corporate training subsystem that must be progressive and cover the practice of not only the best national gas and oil companies but also companies of the world level. Basic principles of forming approaches to corporate training are systemized. The system model offered anticipates focus on the program and target technologies for prospective strategic projects and advance trainings with the use of foresight technologies are stipulated. In order to study and implement international experience, the reasonability of implementing programs on cooperating with foreign core businesses on separate aspects of training is defined. Suggestions given in the article can help managers of various levels of managing the gas and oil company, and functional managers to take timely, stipulated and well-reasoned decisions in the area of managing personnel to achieve strategic goals of business.

**Keywords:** System Approach, Gas and Oil Company, Corporate Training, “Goals Tree,” Management Decisions

**JEL Classifications:** J23, J29, M11, M12

## 1. INTRODUCTION

Under the current strengthening of competitive struggle on the internal and external markets of fuel and power resources, as well as establishing the global course of strategic development by large gas and oil production structures aiming at expanding the presence territory, issues related to searching for factors on increasing the efficiency of business become more and more urgent. One of such factors is the improvement of the process on the interrelation between the company and its personnel.

It is impossible for any gas and oil company to hold leading positions without adjusted work of the personnel. Gas and oil companies that are leaders on the market of hydrocarbons set rather difficult tasks. It is possible to achieve them only subject to the efficient system of work with the personnel that allows to solve both the current and prospective strategic tasks.

Every business segment of a large gas and oil company has some peculiarities of work with the personnel. There is also specificity in

every country and even region of its presence. However, at the same time the company has unified methodology, unified regulations and mechanisms for all enterprises that enter the vertically-integrated oil company (VIOC). To a large extent, it allows to achieve manageability and reliability of the business conduct. Terms and conditions of functioning of national oil companies that have radically changed are characterized by the need to work in the unstable and indefinite external environment, as well as by the search for new tools of achieving goals of stable development under conditions of economic crisis (Kolesnikov, 2011; Rummyantseva and Zabazarnykh, 2006).

Such situation imposes new requirements on managers. They are related to the increase in the ability of independent “strategic” thinking, access to operative information about the environment that reflects different opinions (Kuznetsova, 2011). It is impossible without constant training and self-development of the company personnel.

The analysis of scientific literature on the theme of this research showed that the work with personnel within large gas and oil

production structures had to be based on the principles of social and ethic management, system and situational approaches. For example, the President of the International Association of Business, Economy and Ethics de George emphasizes that the morality of specific employees must not be separated from moral principles of the whole organization activity. Activity in any business segment and in the company as a whole must be based on two main postulates - professionalism and attitude to business, and more specifically in ethic conduct of the employee (de George, 2003).

The activity of a large company is based on its corporate values. They allow to run business in individual's accordance with the highest ethic standards. Companies must realize that their reputation depends not only on rigorous compliance with the requirements of the international and Russian legislation in the area of providing the rights. To a large extent the reputation and success of the company are based on social responsibility and adherence to moral ethical code stipulated by the regulating documents.

Scientific references include a fair number of publications and works of both national and foreign authors who reveal various theoretic and practical aspects of the work with personnel. Inter alia, the issue related to further improvement of work with personnel as applied to specificity of the activity of large VIOC is not sufficiently revealed. Therefore, issues of system representation of results of the research on the areas related to increasing the efficiency of works with personnel in large sectoral companies that operate both in the country and overseas acquire special urgency. This predetermines the need in separate organization of work with personnel that participates in implementing international projects, as well as the personnel involved in work from those countries where the company operates.

It is necessary to specify the following factors as pre-requisites of intensifying the attention to the intra-company work with personnel:

- Demographic situation in the country that, according to experts, comes with a sharp decrease in the number of young specialists by 2020,
- Misbalance in professional education, deterioration of the training quality and prestige of engineering specialties and blue-collar jobs.

Firstly, it emphasizes the importance of intra-company work with personnel, and requires deep analysis of the current practice and development of specific measures. Secondly, the globalization of the gas and oil business increases the demand for specialists who know international standards, have experience of working for foreign companies, and master a foreign language. It necessitates changes to the corporate system of personnel preparation. It must become more flexible and quickly react to all requests of business.

## 2. REFERENCES REVIEW

At the present time the theory of human resources management accumulated considerable experience in the area of solving issues related to the work with the company personnel. Methodology of

managing personnel is revealed in the works of such national and foreign researchers as Bazarov, Eremin, Kibanov, Kononenko, Magomedov, Mordovin, Turchinov, Laura Portolese Dias, Mescon et al., Armstrong et al. (Armstrong, 2004; Bazarov, 2010; Mordovin, 2003; Mescon et al., 1988; Armstrong, 2006; Turchinov, 2012; Turchinov et al., 2011).

The intra-company work with personnel must be organized in accordance with the corporate strategy of the company and production goals and tasks set in every business segment. Therefore, addressing the issues on improving the work with personnel, it is necessary to have knowledge in the area of strategic management both on the level of forming a corporate strategy and in functional subsystems, including in the area of personnel management. General issues of strategic management are revealed in many research works of such famous foreign researchers as Albert, Akoff, Ansoff, Doyle, Drucker, Cahol, Lambin, Lafta, Mescon, Mintzberg, Oldcorn, Paton, Porter, Strickland, Thompson, Trason, Waterman, Philips, Hedowry, Chandler, Andrews et al. (Ansoff, 1979; Doyle, 1994; Drucker, 1974; Lambin, 1993; Mescon et al., 1988; Mintzberg and Quinn, 1996; Porter, 1987; Thompson and Bates, 1957; Albert, 1983; Tompson and Strickland, 1998).

As for Russian authors, the role and importance of strategic management in the activity of enterprises are reflected in the works of Azoev, Vihasnkiy, Gradov, Efremov, Fathutdinov and other researchers (Vihasnkiy, 1998; Efremov, 1998; Fathutdinov, 2005).

Strategic management of personnel in the organization is considered in works of Ivanovskaya, Kibanov, and Yakhontov (Kibanov, 2005; Yakhontova, 2013).

Under modern conditions intra-corporate training and development of personnel acquire special meaning. They become a subject of research of many researchers and experts. This is that point of the interrelation of representatives of business and academic science, as well as educational structures that pre-determines the need in joint solving of problems related to improving the quality of preparing specialists on various stages of their professional becoming and development. The role and importance, as well as various theoretic and practical aspects of improving the system of training in the organization are revealed in the works of Kibanov, Kurbatova, Kiazimov, Magura, Paponova, Moscalenko, Lorgina, Andronova, Slobodskoy, Khassen, Noria and Tirney (Magura and Kurbatova, 2003; Paponova, 2011; Lorgina et al., 2005; Kiazimov, 2013; Slobodskoy, 2013; Moskalenko, 2015; Moskalenko, 2016; Andronova et al., 2016).

Studying theoretical aspects of forming and improving corporate training, it is necessary to know the essence and principles of the system approach that is widely applied in the activity of large entrepreneurship structures. System thinking and system approach to structuring and improving business models that considers the organization as an integration and researches cause-and-effect relations between critical elements of its success are revealed in works of such authors as Fomin and Fomina; Sherwood; Meadows; O'Connor and McDermott (Yemov, 1978; Fomin and

Fomina, 2014; Sherwood, 2012; Meadows, 2011; O'Connor and McDermott, 2015). The need in forming a system of training according to the principles of the system approach is revealed in works of Nesterova, Cole (Nesterova, 2015; Cole, 2004).

Priority development of personnel on the basis of foresight technologies can be considered as a relatively new type of personnel preparation. The review of references showed that a number of works was devoted to foresight technologies as a tool of forming priorities and mobilization of a great number of experts to achieve breakthrough results in the area of forecasting top priority areas of science and technologies. It is possible to refer to such works of the following researchers Gorbachev et al. (Gorbachev et al., 2012). Elements of foresight management are reflected in works of Kolesnikov et al. (Kolesnikov, 2014; Dalkey and Helmer, 1963; Hines and Bishop, 2006; Tsoukas and Shepherd, 2004).

Solving of practical issues related to managing personnel in gas and oil companies as well as areas of further development of the work with personnel are reflected in interviews and publications of heads of various management levels of these companies, e.g., in articles of Ageeva, Andronova, Lorgina, Matskevish, Pihtovnikov, Sotnikovs, Nabokov, Pohomkina, Chepurnov, Sidomonidze, Dowdey et al. (Lorgina et al., 2005, Sotnikova, 2012; Matskevich, 2012; Ageeva, 2011).

### 3. MATERIALS AND METHODS

#### 3.1. System Approach as Basis of Improving Work with Personnel

The process of improving the work with personnel of gas and oil companies must have a constant system character (Gaisina, 2011) and be based, first of all, on the system approach and its principles. Oil companies due to the scales of their activity, complexity of technological processes, growing tempos of implementing innovational developments in all areas of the activity have to constantly improve by developing their basic potential put behind personnel. The system approach to the work with personnel of the company will allow to provide competitive advantages both in the short-term and long-term perspective (Ponomareva, 2009). This approach will also allow to timely study the problems that occurred in the area of personnel management that are formed as a result of external and internal (often unfavorable) factors. Besides, it will allow to forecast possible not always positive tendencies in the personnel area and on the labor market. As a result managers will be able to timely and rapidly take preventive measures and management decisions aiming at avoiding negative situations or decrease their sharpness and intensity of occurrence. Founders of the system approach are Bogdanov, von Bertalanfey, de Bono, La Rouch, Simon, Drucker, Chandler, Chernogor, Maliuta. The system approach is an area of the methodology of scientific cognition based on considering the object as a system of integral complex of interrelated elements (Blowberg et al., 2010).

Cole gives the following definition to the system approach as applied to the training system: "The system approach to training and developing includes logical agreement of the beginning of the activity and revealing of policy and resources to support it. It is

followed by the estimation of the need in training, training itself and its results" (Cole, 2004).

Assuming ideas of Cole as a basis, in her work Nesterova shows the following succession of the system of training in the organization (Nesterova, 2015):

- Development of training policy that directs actions of the organization both in the required volume and required area of development,
- Defining a list of obligations of those who bear responsibility for pursuing the personnel policy,
- Establishing a structure of teaching offices and procedures, as well as allocating material resources for training, and
- Accurate fulfillment of obligations by those who are responsible for pursuing the personnel policy including specialists on training: From analyzing needs in training to estimating the training measures that were taken.

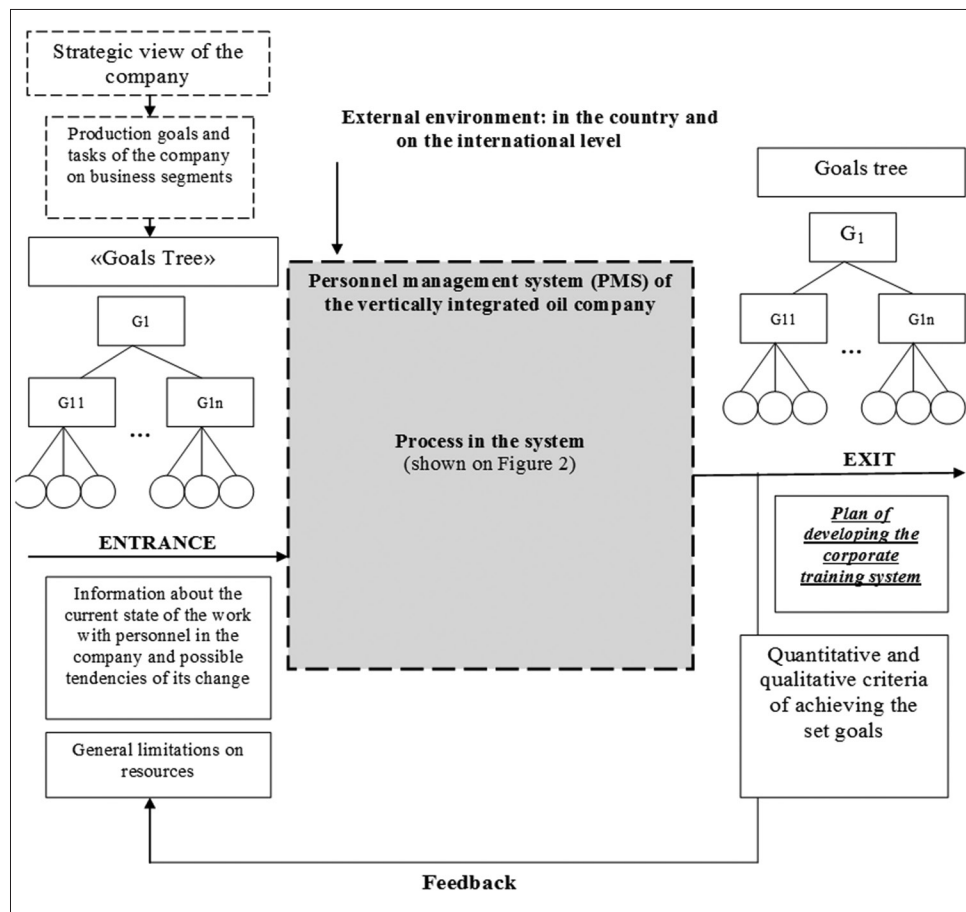
In case of the system approach, it is reasonable to divide the area of personnel management into separate subsystems. For example, it is possible to single out such subsystems as adaptation subsystem, subsystem of personnel reserve, personnel selection, training subsystem, etc. Depending on the range of the activity of the company, they define the reasonability to single out any subsystem for the whole chain of work with personnel: From forming the personnel strategy and personnel management policy to specific functional subsystems. It is possible to take decisions related to personnel according to the algorithm of developing and taking management decisions in comprehensively formed gas and oil structures (Osinovskaya et al., 2013).

Modern conditions of gas and oil companies functioning hold considerable reserves in the subsystem of corporate training of personnel. That is where it is possible to find hidden threats of the stability of gas and oil companies in the future especially on the background of the transformation of the state system of education and expansion of the territory of the countries of oil companies' presence. To a large degree, the problem is also actualized because of complicating of conditions and technologies of oil production, occurrence of alternative sources of power, strengthening of the competitive struggle between gas and oil companies, and other factors that pre-determine the increase in the requirement to the personnel qualification and competence. Therefore, the issue related to improving of the work with personnel in gas and oil companies will further be considered through the development of the training subsystem.

The description of the process of work with personnel in the area of its improvement on the basis of the system approach can be schematically presented as aggregative and decomposition model (Plenkina, Osinovskaya, Lenkova, 2013) (Figure 1).

In this case personnel management system (PMS) of the VIOC is considered as a conditional "aggregate." The whole combination of PMS functions and interrelates within it.

The PMS functions due to obtaining of incoming information in the form of several flows. The first flow bears the information that

**Figure 1:** Scheme of improving work with personnel based on the system approach (corporate training subsystem)

reflects strategic view of the company, production goals and tasks of the company on business segments represented as a “goals tree.” Processing of this flow of information allows to structure a “goals tree” for the personnel management subsystem and agree it with the strategy of the company activity as a whole, as well as with the goals of its separate production business segments.

Figure 2 shows the PMS of the vertically-integrated company that reflects the behavior in the system when implementing the system approach.

The second flow of information reflects the current state of affairs in the personnel management subsystem. Processing of this flow of information will allow to reveal the availability of the existing or potentially possible problem situations, as well as opportunities for further improvement of work with personnel.

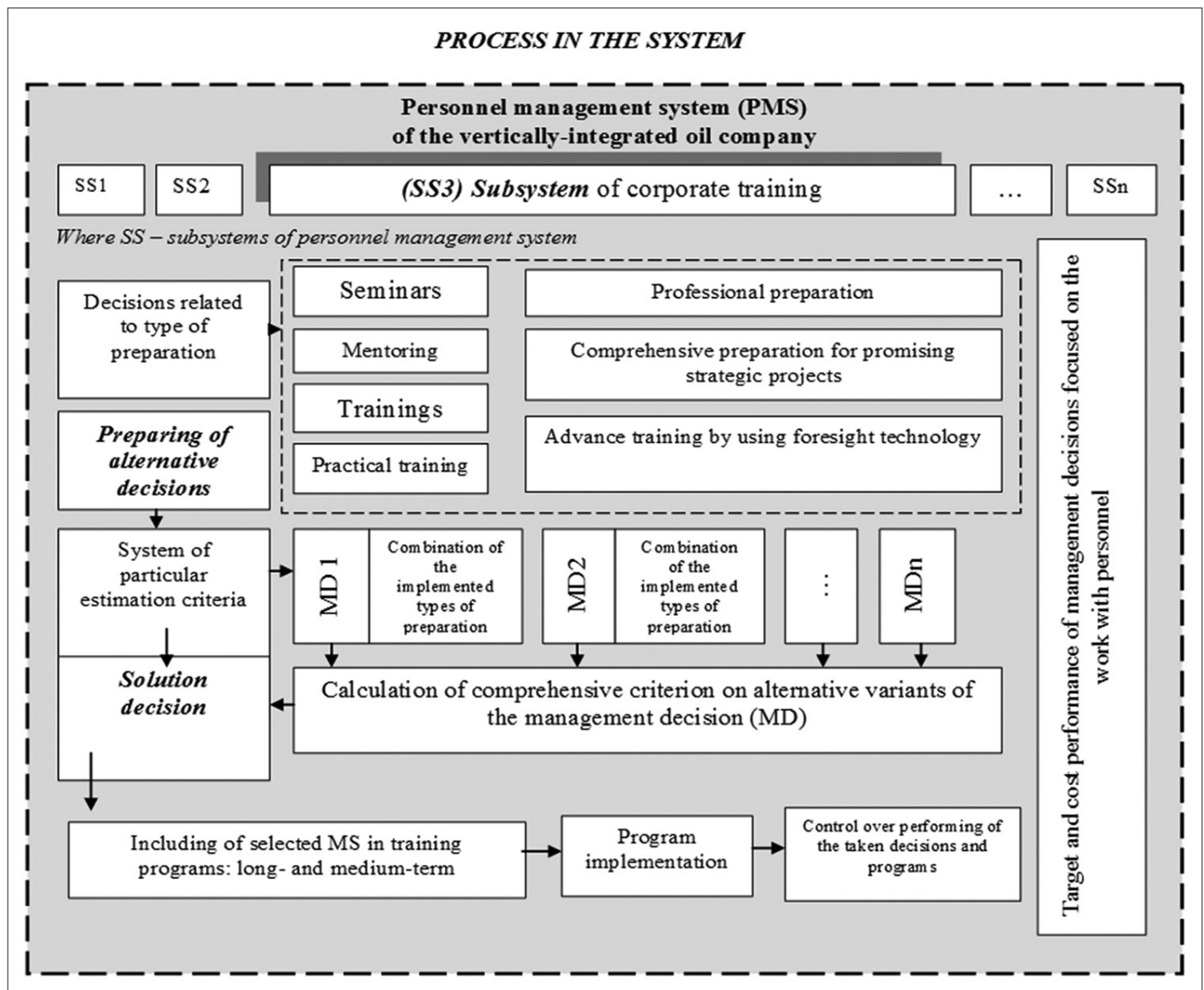
The third flow of information is focused on the resourceful provision of the personnel management subsystem and enterprise as a whole (Figure 3). It characterizes the volume of all resources that can be used under the current work of the enterprise and PMS, as well as focused on the preparation and implementation of events related to their improvement.

According to the management axiom, four types of resources are involved in the production process. However, the main resource is people. Success of a business project and business process considerably depends on the human factor, i.e. specific performers.

The number of flows of incoming information can be expanded at the request of the individuals who take decisions in this subsystem, as well as depending on the level of complexity of the tasks to be solved.

The processes that take place inside the “aggregate” that means the PMS must take place to provide the admissible level of the target and cost efficiency of management decisions focused on the work with personnel. For example, Figure 1 shows in details the process of preparing and implementing management decisions for the personnel training subsystem. It includes the development of decisions on the implemented types of preparation, their importance for the company at the moment of developing and for the future period. Here the ratio of every type of preparation in the general system of training is defined.

At the next stage the system of particular estimation criteria is formed. They will be put in the estimation of comprehensive alternative management decisions in relation to the implementation of training programs, defining their priority and importance. The final decision is taken by calculating the comprehensive criterion for every management decision. Then, everything comes to the traditional algorithm of developing and taking management decisions, namely selection of the final decision (a group of decisions), including them to relevant training programs, implementation and control over the approved programs of training. In case of departure from the target results or revealing new considerable conditions and factors that have an impact

**Figure 2:** Personnel management system (PMS) of vertically-integrated oil company

on personnel training, the possibility to take new decisions is considered (Osinovskaya, 2015).

Long-term plan of the company personnel development is a result of the considered “aggregate.” To different extents it allows to achieve various goals reflected in the “goals tree” and that are obligatorily correlated with the general corporate strategy of the company.

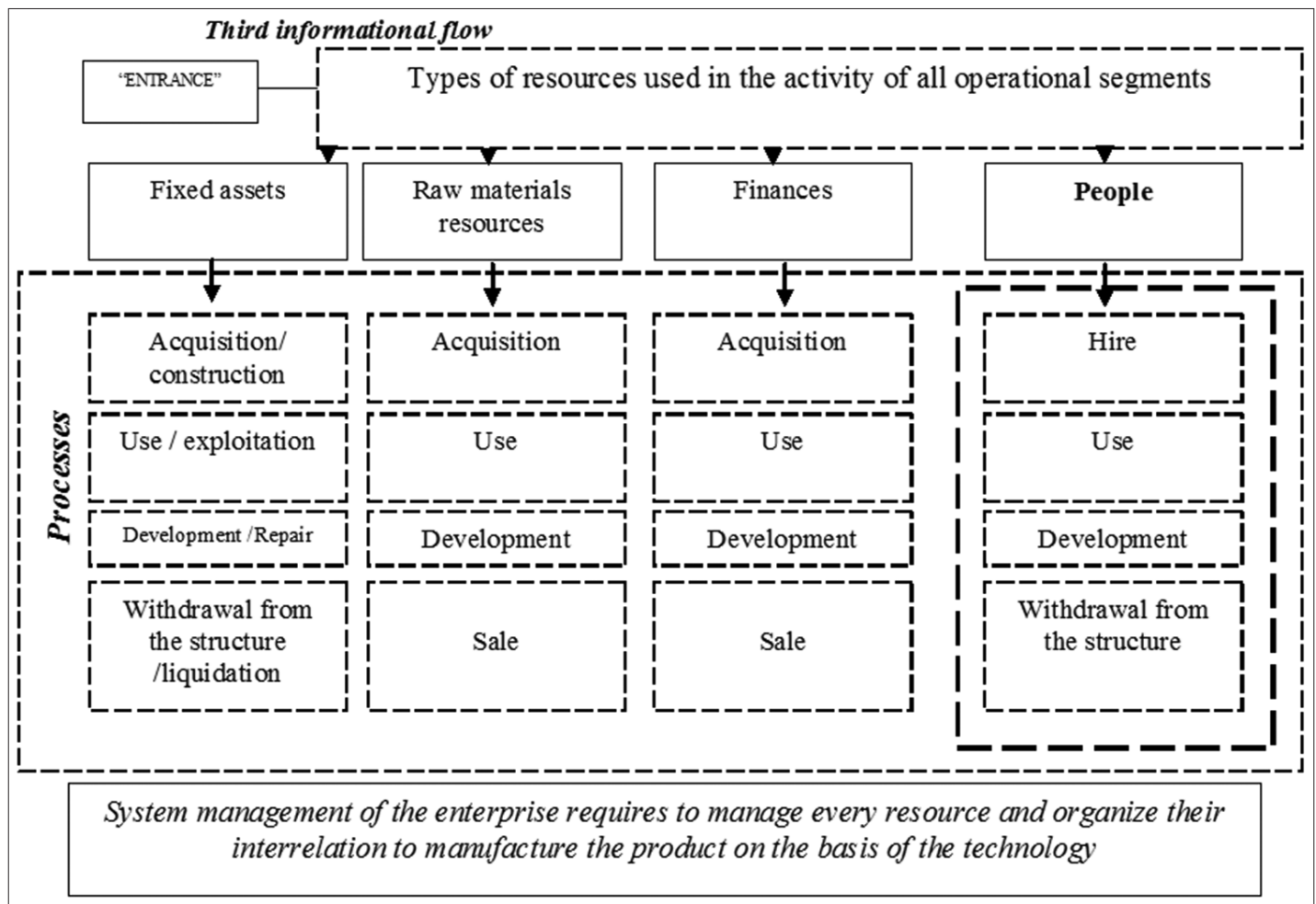
Aggregative and decomposition idea of the management object (in this example, as applied to the PMS) allows to make its essence clear, and to simplify the process of developing difficult management decisions in all subsystems of personnel management. Besides, conditional description of this process will contribute to accurate structuring of the coordination of this process, system of monitoring of this subsystem functioning, as well as it will be greatly practically important when creating the corporate system on supporting and taking management decisions related to the development of PMS of the gas and oil company.

### 3.2. Principles of Forming Corporate Training Subsystem

Corporate system of training must be progressive and cover the practice of not only the best national companies but also companies of the world level that are today characterized by such tendencies in the area of personnel training as

- Considering the PMS as one of the most important business tasks,
- Implementation of principles of self-training and self-developing organizations,
- Establishment of educational alliances, and
- Considering the expenses for preparing personnel as long-term investments.

It is possible to single out such basic principles of forming the corporate training system of a VIOC as systematicity, integrity, continuity, multidimensionality, addressness, purposefulness, flexibility, motivation, transparency, quality provision, knowledge maintenance and acquisition. It is necessary to note that the

**Figure 3:** Characteristic of the resourceful information flow characterizing “entrance” in the personnel management system

practical implementation of these principles anticipates their interrelation and interdependence.

The systematicity principle anticipates the implementation of the system approach to the subsystem of the company corporate training. Training programs are developed in accordance with the needs of all functional subsystems and operational segments (“Geological survey and production,” “Processing and selling,” “Petrochemistry,” “Power”) and are focused on various target groups and all categories of the personnel. Corporate training is implemented in strict compliance with the set strategic and operational goals of the company that are reflected, for example, in the strategic development program, and it is also correlated with its functional strategy. It says about the compliance with the principle of purposefulness of training employees of the company.

The considered list of principles put in the basis of forming corporate training is rather universal and open. It can be adapted to any area of the enterprise activity, various goals and production tasks, and ranges of activity. At the same time, the development of internal and external environment of the enterprise, transformation of the educational system caused by objective needs of the time, changes of methods, means and forms of training can lead to the latest news and occurrence of other principles of forming the system of training in large companies. The task of top management

and functional managers in the area of personnel management is to timely make relevant corrections in the functional strategy of personnel management in order to achieve basic goals and tasks of the corporate training system. For example, the following tasks:

- Improving professional qualification of the company employees and development of their personal potential,
- Contribution to the growth of the company cost, and
- Strengthening and increasing of the company competitiveness on the internal and world markets, etc. (Moskalenko, 2016).

Revealing issues of methodological nature in relation to the formation of the system of corporate personnel training, possible types of preparation and forms of training are of special interest. In addition to classical variants of preparing such as seminars, mentoring, trainings and practical trainings, professional retraining for large gas and oil companies, it is reasonable to consider such types as comprehensive preparation for prospective strategic projects and advance training with the use of foresight technologies.

Comprehensive preparation anticipates the development of a personnel training system for the personnel to obtain all required knowledge of both theoretical and practical character, highly specialized production and technological knowledge, including language preparation. It will allow the personnel to operate on

a high professional level within a specified prospective strategic project of the company.

Advance training of personnel on the basis of foresight technology can be considered as a relatively new type of the personnel preparation. Works of Andronova are devoted to issues related to implementing innovations in the oil company and providing personnel with the relevant level of knowledge (Andronova, et al., 2014).

Foresight is systematic attempts to estimate long-term perspectives of the science technologies, economy and society in order to define strategic areas of research and new technologies that can bring the greatest social and economic benefits (Sokolov, 2007). Foresight is basically used in long-term forecasting of the development of large social and economic systems. However, it is possible to use this methodology both in searching and target forecasting (Kolesnikov, 2013).

The adaptation of the essence of this process to the needs of large oil companies that perform their production activity by using comprehensive technologies in various business segments allows to speak about the need to prepare personnel today for using their knowledge and skills in the future. The issue related to the work of the company for the long-term perspective and searching for new innovational technologies that allow to increase production indicators of the company are actualized. However, it is necessary to remember that any innovational technologies in such production segment as, for example, "Geological survey and production" does not allow to rapidly implement them in practical activity due to the lack (or insufficiency) of the prepared personnel of the required qualification.

Therefore, today companies must create working groups of analyst experts and set tasks to search for possible achievements of the science and technology in every production segment according to technological segments that reflect strategic goals and production tasks of the company, to estimate the probability of the possibility of their practical implementation in the medium- and long-term perspectives, as well as to form the requirement to the specialists that are planned for work with innovational technologies of the future. It predetermines the necessity to single out, within the corporate system, a subsystem that will respond for the advance preparation of personnel for work in prospective and strategically significant projects of the company.

Forms of training, which should be the basis for the corporate system of training, can be intramural, distance or comprehensive (mixed) (the latest is characterized of programs related to knowledge exchange).

Many large companies of the gas and oil production area practice the implementation of elements of the distance training in the system of corporate training. Thus, for example, "Knowledge Management" project was implemented in the corporate training system of the LUKOIL oil company. It allows employees to rapidly automatically exchange experience, solve non-standard production tasks, and minimize risks related to taking unstipulated decisions within the network groups.

The analysis of needs of the company personnel in training showed that all employees could be structured in such target groups as top managers, personnel reserve, mobile personnel, young specialists, workers, engineers, and analyst experts based on the needs in their training and development.

Special attention is paid to preparing top managers and personnel reserves for top offices for the development of the human potential and formation of management skills. In order to achieve the set goals, it is reasonable to use external and internal training resources, as well as the most modern types of preparation (for example, MBA, EMBA, etc.).

Oil companies operating in various regions and abroad must pay attention to issues on preparing mobile personnel. Today its selection and development is a rather important and urgent strategic task. This target group is formed by the employees who can rapidly move among the company projects, develop and support business processes of the company on any territory of its presence, ensure the compliance with the quality standards that is especially important for gas and oil production structures. Actually these employees make up a sort of a reserve of employees who are temporarily sent or can be sent for work to another country or region. It pre-determines specific and increased requirements to the process of training these employees when the most efficient forms of training are practical trainings, as well as individual language training. Training according to international standards is especially important.

In order to study and implement international experience, it is reasonable to implement programs of cooperating in specific aspects of training with foreign core businesses. Such form of preparing personnel can be the most efficient for potential managers from the reserve of mobile personnel and those who target to perform management activity within international projects.

The next top priority area in training is the preparation of regular labor force, especially under conditions of the transformation of the educational system. The system shows that the employees who have primary professional education are not always ready to fulfill their professional obligations and give high quality results. It corrects the system of the company training and stipulates the need to create corporate educational centers (Andronova and Oblomiy, 2014).

A peculiarity of the activity of large oil companies is that they work on various territories and use various modern innovational and complex technologies. For example, a number of companies operate on sea oil platforms. It pre-determines special requirements to the organization of the process of training the personnel who plan to work on such projects, too. For the purpose of preparing personnel for work on sea platforms, there is a need to create specialized corporate educational centers that use modern methods of training in the educational process, for example, digital technologies and practical trainings. Education must also include programs that allow to form and work out the skills of surviving in non-standard situations, as well as psychological preparation of personnel. Training places in the center must be

entirely identical to the workplace on the platform and equipped with various exercisers.

LUKOIL demonstrates successful experience of creating such corporate centers. The North Caspian is one of the most prospective regions on oil production for the company. For the purpose of preparing personnel for work, the Corporate Educational Center was established in the sea in the village of Ilyinka of the Astrakhan Region. Norwegian Falck Nutek Company is the main partner in implementing this project. This is a generally acknowledged leader on training personnel for work in sea. This cooperation directly improves the quality of training and its target efficiency. Such practice must be put in methodological aspects of forming the system of corporate training of large gas and oil production structures.

Demographic situation that is formed on the labor market today pre-determines the urgency and importance of work with young specialists, too (Andronova, Slepuhina and Bachinina, 2014). Corporate system of training must also include a block related to interrelating with this target segment (Sotnikova, 2012). The analysis of the experience of the PJSC "LUKOIL" work in this area showed the efficiency of such measures as organization of annual contests for giving a title "Best young specialist of the year," organization of meetings with managers of the company and enterprises that are included in it, periodical and systematic holding of scientific and technical contests and conferences (Moskalenko, 2009). In order to increase the rapidness of informing, increase in the efficiency of work with young employees on the corporate portal, it is reasonable to establish a special forum.

It is necessary to single out in a separate target group analyst experts who participate in the implementation of processes related to introducing foresight technology in training. Structuring of the subsystem of advance training and building it in the corporate system will depend on them. Training of this target group requires extremely high quality and extremely individual approach because they need not theoretical knowledge and knowledge about the implemented production technologies but knowledge about innovational technologies of the future that require the preparation of personnel and investing in its training today.

As a conclusion, it is necessary to note that approaches to forming training and development programs must be unified for all enterprises that are parts of an oil company, and they must be integrated in the relevant business segment. The system of personnel preparation must be structured above all on the basis of production tasks.

#### 4. RESULTS

During their research the author proved the causal relationship between the state of the PMS and efficiency of running business. The urgency and necessity to solve issues related to improving the work of the PMS on the level of large gas and oil structures, for example, such as "LUKOIL" oil company were defined.

The main emphasis in the research was made on the reasonability to use a system approach when solving various personnel issues. The descriptive model of the PMS was obtained. It is represented in the aggregative and decomposition form and can further become a basis for the intra-corporate system of supporting and taking personnel decisions. Further development of the research can be focused on supplementing the obtained model with program and target technologies whose base has already been reflected in the author's model. This base for using program and target technologies is expressed in the formation at the "entrance" stage in the model of the "goals tree," and in the preparation of various personnel decisions within the system. In the future they are combined in relevant programs, for example, those on personnel developing and training.

The author's offers related to the development of the corporate training system development at the expense of new variants of preparation, for example, comprehensive preparation for prospective strategic projects and advance training with the use of foresight technologies, are especially important.

The author's offers related to improving the process of work with personnel can help heads of various management levels and functional managers to take timely, stipulated, and well-reasoned decisions in the area of personnel management.

#### 5. DISCUSSION

The issues related to improving the work with personnel in the gas and oil companies is actively discussed in various areas by representatives of business structures, high school and academic science at various conferences and forums.

Generalizing the discussion of this issue, it is necessary to note that the current situation in the area of managing personnel of sectoral enterprises is characterized by,

- Decrease in professionalism,
- Misbalance in professional education,
- Deterioration of the quality of training and prestige of engineering specialties,
- Demographic crisis in the country,
- Growing demand for specialists with the experience of working in international projects,
- Need in practical preparation and re-preparation of managers of all levels of management, and
- Need in quick replacement of key offices by rotation.

It predetermines the need in investing by gas and oil companies in system development of their personnel, as well as the growth of labor potential and strengthening of its innovational component. However, there is ambiguousness of opinions on the part of various management levels. Companies' managers are not always ready to realize the need in such expenses. As some specialists of the gas and oil area specify, "Here it is necessary to have a separate department for calculating the efficiency of training by using algebraic equations" (<http://www.oilcareer.ru/publ/16-1-0-289>). Indeed, in some cases it is rather difficult to calculate the net economic effect from measures aiming



at improving the PMS including those related to the training subsystem development.

On the other hand, the opposite point of view on this issue is also wide-spread. For example, emphasizing the importance of the problem on training own personnel, the Head of the Human Resources Department of “Gazprom Neft” Matskevich states “The largest companies, both Russian and foreign ones, invest considerable funds in training and developing employees.” A number of foreign companies such as Schlumberger and Halliburton play a considerable role in preparing Russian specialists. Considerable contribution is made by BP, Shell and ConocoPhillips (Makasheva and Makasheva, 2015; Matskevich, 2012).

## 6. CONCLUSION

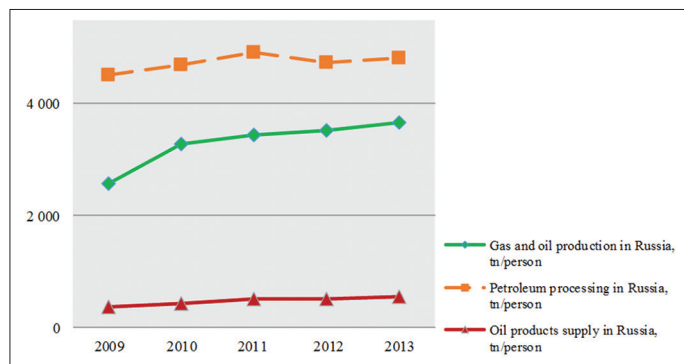
As a conclusion, we would like to note that the goal of this research set by the author and lying in the development of areas to improve the work with personnel was achieved. The reasonability of considering of processes to improve work with the personnel and especially systems of personnel training as one of the factors to increase the efficiency of running business was stipulated.

Based on the detailed analysis of the system related to managing personnel of a large gas and oil company, technologies and principles of its constructing were generalized. The reasonability to represent the PMS in the formalized form as an aggregative and decomposition model based on the system approach was stipulated. Elements of the technology related to developing and taking management decisions in the subsystem of training personnel of a gas and oil company were revealed. Principles of its formation that allow to take into account sectoral peculiarities and needs in selecting forms and types of preparing personnel to solve specific business tasks was defined.

Labor intensity and complexity to formalize all personnel processes to solve various production goals and tasks can be defined as an advantage of the offers made by the author in relation to implementing the system approach when improving the PMS. These labor intensity and complexity occur due to the variety of production goals and tasks, as well as the complexity of the production system of a large of gas and oil company due to performing activity in various operational segments that cover processes from geological survey to processing and selling. This disadvantage can be eliminated by creating an intra-corporate system of supporting and taking personnel decisions and a system of knowledge (Morten et al., 1999) that allows to reflect the whole variety on the incoming information, information from the external environment, as well as cause-and-effect relations when solving separate management and production tasks.

The author’s offers were fragmentarily approbated in the activity of the LUKOIL oil company. They were reflected in the current system of corporate personnel training. This system was made on the basis of the principles of the system approach in accurate compliance with strategic focus of the company, as well as functional program of development in the area of managing personnel of the LUKOIL Group for 2012-2021.

**Figure 4:** Dynamics of labor efficiency according to types of activity of Russian organizations - PJSC “Lukoil” for 2009-2013



One of the indicators that characterize the efficiency of running business is the labor efficiency. Figure 4 shows the dynamics of the labor efficiency according to types of activity of Russian organizations of the LUKOIL Group for the recent 5 years.

As it can be seen, there is positive dynamics. This result is achieved not only due to improving technologies that contribute to the growth of the volumes of production of hydrocarbons, oil processing, and sale of petroleum products, but also sustainable efforts on optimizing work with personnel and improving its quality.

## REFERENCES

- Ageeva, E. (2011), Obucheniyе personala [Personnel training]. Direktor po personalu. URL: [www.hr-director.ru](http://www.hr-director.ru) [Last accessed on 2016 Jun 23].
- Albert, K.K. (1983), *The Strategic Management Handbook*. New York: McGraw-Hill. p546.
- Amstrong, M. (2004), *Praktika Upravleniya Chelovecheskimi Resursami [Practice of Human Resources Management]*. Saint-Petersburg: Peter. p832.
- Andronova, I.V., Eremina, I.Y., Kozodaev, M.A., Kartashov, D.S., Borisov, M.G., Dubinin, A.G. (2016), Innovatsionnye instrumenty upravleniya talantami v sovremennykh neftegazovykh kompaniyah [Innovational tools to manage talents in modern gas and oil companies]. *Oil, Gas and Business*, 2, 37-42.
- Andronova, I.V., Oblomiy, N.S. (2014), Mezhdisciplinarnyye Kimandy Kak Istochnik Innovatsiy v Neftegazovom Komplekse [Interdisciplinary Orders as a Source of Innovations in the Gas and Oil Complex]. In: *The Proceedings of the 2014 International Conference Innovations in managing Regional and Sectoral Development*. p243-246.
- Andronova, I.V., Slepuhina, T.A., Bachinina, Y.P. (2014), Prakticheskiy Podhod k Povysheniyu Innovatsionnoy Aktivnosti Molodykh Rabotnikov Neftianoy Kompanii [Practical Approach to Increasing Innovational Activity of Young Employees of Oil Company]. In: *the Proceedings of the “NEFTGAZTEC-2014” Tyumen Forum*. p14-19.
- Andronova, I.V., Slepuhina, T.A., Suvorova, M.S. (2014), Vnedrenie innovatsiy v neftianoy kompanii: Bariery i vozmozhnosti preodoleniya [Implementation of innovations in oil company: Barriers and opportunities to overcome]. In: *Plenkina, V.V., editor. Modern Problems and Perspectives of Regional and Sectoral Development*. Tyumen: Tyumen State Oil and Gas University. p18-21.
- Ansoff, I.H. (1979), *Strategic Management*. New York: Wiley. p236.
- Armstrong, M.A. (2006), *Handbook of Human Resource Management*

- Practice. London: Kogan Page Publishers. p982.
- Bazarov, T.Y. (2010), *Upravlenie Personalom [Personnel Management]*. Moscow: Akademia Publishing Center. p224.
- Blowberg, I.V., Sadovskiy, V.N., Yudin, E.G. (2010), In: Geseynov, A.A., Semigin, G.Y., editors. *Sistemny Podhod [System Approach]*. Novaya Filozofskaya Entsiklopediya [New Philosophy Encyclopediya]. Moscow: Mysl. p692.
- Cole, J. (2004), *Obuchenie and Razvitie: Sistemny Podhod [Education and Development: System Approach]*. Moscow: Personnel Management in Modern Organizations. p252-259.
- Dalkey, N., Helmer, O. (1963), An experimental application of the Delphi method to the use of experts. *Management Science*, 9(3), 458-467.
- de George, R.T. (2003), *Delovaya Etika [Business Ethics]*. Moscow: Publishing House RIPOL CLASSIC, PROGRESS. p736.
- Doyle, P. (1994), Setting business objectives and measuring performance. *Journal of General Management*, 20(2), 1-19.
- Drucker, P.F. (1974), *Management: Tasks, Responsibilities, Practices*. New York: Harper & Row. p839.
- Efremov, V.S. (1998), *Strategiya Biznesa. Kontseptsii i Metody Planirovaniya [Business Strategy. Planning Concepts and Methods]*. Moscow: Finpress Publishing House. p192.
- Fathutdinov, R.A. (2005), *Strategicheskii Menedzhment [Strategic Management]*. Moscow: Delo. p448.
- Fomin, E.V., Fomina, Y.A. (2014), *Obshchii sistemny podhod i sotsialno-ekonomicheskie sistemy (ot upravleniya k samoorganizatsii). Kniga 1. Obshchii Sistemny Podhod [General system approach and social and economic systems (from Management to Self-organization). Book 1. General System Approach]*. Moscow: Lenand. p160.
- Gaisina, L.M. (2011), *Deficit v Strane Izobiliya: Nehvatka Vysokokvalifitsirovannyh Kadrov v Sisteme Neftegazovogo Kompleksa Rossii [Deficit in the Abundance Country: Deficit of Highly Qualified Human Resources in the Russian System of Gas and Oil Complex]*. *Neftegazovoye Delo*, 6. Available from: [http://www.ogbus.ru/authors/Gaysina/Gaysina\\_1.pdf](http://www.ogbus.ru/authors/Gaysina/Gaysina_1.pdf). [Last retrieved on 2015 Sep 26].
- Gorbachev, C.V., Syriamkin, V.I., Syriamkin, M.V. (2012), *Intellektualny forsait-prognoz prioritetrov nauchno-tehnicheskogo razavitiya gosudarstva [Intellectual Foresight Forecasting of Scientific and Technical Development of State]*. Saarbrücken: Lambert Academic Publishing. p132.
- Hines, A., Bishop, P. (2006), *Thinking about the Future, Guidelines for Strategic Foresight*. Washington DC: Social Technologies. p242.
- Kiazimov, K.G. (2013), *Vnutrifirmennoe Obuchenie i Razvitie Personalna [Training and Developing Personnel Inside Company]*. Moscow: MIK Publishing House. p240.
- Kibanov, A.Y. (2005), *Osnovy Upravleniya Personalom [Personnel Management Basics]*. Moscow: INFRA. p304.
- Kolesnikov, R. (2011), *Organizational Behavior Management as an Instrument to Achieve Sustainable Development Goals in an Aggressive Environment of an Economic Crisis*. MBA Master Thesis. WHU. Otto Beisheim School of Management. Vallendar, Germany.
- Kolesnikov, R.A. (2013), *Forsait Menedzhment: Novaya Tehnologiya Uvelicheniya Prodazh i Probylnosti [Foresight-management: New Technology of Sales and Profitability Increase]*. Management of the XXI Century: Actual Trends in Education and Business, Collection of Scientific Articles. Saint-Petersburg: Asterion. p143.
- Kolesnikov, R.A. (2014), *Forsait Menedzhment. 7 Pravil Uspeha v Biznese [Foresight-Management. 7 Rules of Business Success]*. Saint-Petersburg: Knizhny Dom LLC. p48.
- Kuznetsova, N.A. (2011), *Preimushchestva Vertikalno-integrirovannyh Neftianyh Kompaniy Kak Kompleksnogo Preobrazovaniya Struktury Upravleniya [Advantages of Vertically-integrated Oil Companies as Comprehensive Transformation of Management Structure]*. *Modern Researches and Innovations*, 5. Available from: <http://www.web.snauka.ru/issues/2011/09/2767>. [Last retrieved on 2015 Oct 19].
- Lambin, J.J. (1993), *Strategic marketing. A Euro Approach*. London: McGraw-Hill Book Co. p539.
- Lorgina, N.N., Martynov, V.G., Moskalenko, A.A. (2005), *Korporativnost i sistema dopolnitelnogo professionalnogo obrazovaniya [Corporativity and system of additional professional education]*. *Problems of Economy and Gas and Oil Complex Management*, 3, 4-8.
- Magura, M.M., Kurbatova, M.B. (2003), *Organizatsiya obucheniya personala kompanii [Organization of training of personnel]*. Moscow: Intel-Sintez.
- Makasheva, N.P., Makasheva, Y.S. (2015), *Rol personala v obespechenii ekologicheskoy bezopasnosti neftegazovogo proizvodstva [Role of personnel in providing ecological safety of gas and oil production]*. *Economic Systems Management*. Available from: <http://www.uecs.ru/uecs-75-752015/item/3402-2015-03-16-08-18-36>. [Last retrieved on 2016 Feb 15].
- Matskevich, E. (2012), *Mobile personnel*. Interview with head of the human resources Department of OJSC "Gazprom Neft". *Oil of Russia*, 2, 48-50.
- Meadows, D. (2011), *Azbuka Sistemnogo Myshleniya [Thinking in Systems: A Primer]*. Moscow: Binom, Knowledge Laboratory. p344.
- Mescon, M.H., Albert, M.H., Khedouri, F.H. (1988), *Management*. New York: Harper & Row. p777.
- Mintzberg, H., Quinn, J.B. (1996), *The Strategy Process: Concepts and Contexts*. Upper Saddle River, N.J: Prentice Hall, Co. p990.
- Mordovin, S.K. (2003), *Upravlenie Personalom: Sovremennaya Rossiyskaya Praktika [Personnel Management: Modern Russian Practice]*. Saint-Petersburg: Peter. p288.
- Morten, T.N., Nitin, N., Tierney, T. (1999), *What is Your Strategy for Managing Knowledge?* Harvard Business Review on Organizational Learning. 1<sup>st</sup> ed. MA: Harvard Business School Press. p106-116.
- Moskalenko, A.A. (2009), *Chelovecheskiy kapital kompanii [Human Capital of Company]*. *Oil of Russia*, 3. Available from: <http://www.oilru.com/sp/24/988>. [Last retrieved on 2015 Dec 14].
- Moskalenko, A.A. (2015), *Mobile Personnel Training in the Context of Business Tasks Solution of Oil Company*. In: the Proceedings of the 12<sup>th</sup> International Scientific Conference European Science and Technology. p149-152.
- Moskalenko, A.A. (2016), *Metodologicheskie osnovy formirovaniya sistemy korporativnogo obucheniya personala neftianoy kompanii [Methodological basis of forming system of corporate training of oil company personnel]*. *Economy and Entrepreneurship*, 1(2), 1104-1108.
- Nesterova, O.V. (2015), *Sinergy Moscow financial and industrial university non-state educational institution of higher professional education*. *Naukovedeniye*, 7(2). Available from: <http://www.naukovedenie.ru/PDF/09EVN215.pdf>. [Last retrieved on 2015 Aug 18].
- O'Connor, J., McDermott, I. (2015), *Iskusstvo Sistemnogo Myshleniya: Neobhodimye Znaniya o Sistemah i Tvorcheskom Podhode Resheniyu Problem [The Art of Systems Thinking: Essential Skills for Creativity and Problem Solving]*. Moscow: Alpina Publisher. p254.
- Osinovskaya, I.V. (2015), *Metodicheskie osnovy otsenki effektivnosti upravlencheskih resheniy na urovne neftegazodobyvaushchih struktur [Methodological basis of estimating efficiency of management decisions on the level of gas and oil producing companies]*. *Economy and Entrepreneurship*, 1, 591-593.
- Osinovskaya, I.V., Plenkina, V.V., Lenkova, O.V. (2013), *Algoritm priniatiya upravlencheskih resheniy v slozhnopostroennyh neftegazovyh strukturah [Algorithm of taking management decisions in comprehensively constructed oil and gas structures]*. *Scientific Review*, 1, 262-267.

- Paponova, N. (2011), *Obuchenie Personala Kompanii* [Company Personnel Training]. Moscow: Finpress. p176.
- Plenkina, V.V., Osinovskaya, I.V., Lenkova, O.V. (2013), *Razrabotka upravlencheskih resheniy v neftegazovyyh strukturah: Teoriya i praktika* [Development of Management Solutions in Gas and Oil Structures: Theory and Practice]. Germany, Saarbrücken: LAP LAMBERT Academic Publishing. p93.
- Ponomareva, M. (2009), *Korporativnoy Obuchenie: Ot Teorii k Praktike* [Corporate Training: From Theory to Practice]. Available from: <http://www.e-xecutive.ru/education/proeducation/1156185-korporativnoe-obuchenie-ot-teorii-k-praktike>. [Last retrieved on 2015 Nov 17].
- Porter, M.E. (1987), From competitive advantage to corporate strategy. *Harvard Business Review*, 65(3), 43-59.
- Rumyantseva, M., Zabazarnykh, Y. (2006), What's the fuss? assessing the labor market in the petroleum industry. *Oil & Gas Eurasia*, 5, 40-50.
- Sherwood, D. (2012), *Videt Les za Derevyami. Sistemny Podhod Dlia Sovershenstvovaniya Biznes-modeli* [Seeing the Forest for the Trees: A Manager's Guide to Applying Systems Thinking]. Moscow: Alpina Publisher. p342.
- Slobodskoy, A.L. (2013), *Obuchenie Personala Organizatsiy* [Training Organizations Personnel]. Saint-Petersburg: SPbGEU. p124.
- Sokolov, A.V. (2007), *Forsait: Vzgliad v budushchee* [Foresight: View into the future]. *Foresight*, 1(1), 8-15.
- Sotnikova, S.I. (2012), *Dvizhenie personala kak mehanizm povysheniya korporativnoy konkurentosposobnosti v nestabilnoy sfere* [Movement of personnel as mechanism to increase corporate competitiveness in non-stable environment]. *Bulletin of Nguen*, 2, 46-55.
- Sotnikova, S.I. (2012), *Prioritety i Tendentsii Dvizheniya Molodyh Kadrov Neftyanoy Kompanii* [Priorities and Tendencies of the Movement of Young Personnel of Oil Company]. *HR Manager. HR Management (Personnel Management)*, 11. Available from: <http://www.hr-portal.ru/article/prioritety-i-tendentsii-dvizheniya-molodyh-kadrov-neftyanoy-kompanii>. [Last retrieved on 2015 Feb 10].
- Thompson, J.D., Bates, F.L. (1957), Technology, organization, and administration. *Administrative Science Quarterly*, 2, 235-242.
- Tompson, A.A., Strickland, A.J. (1998), *Strategicheskoy Menedjment. Iskustvo Razrabotki i Realizatsii Strategii* [Strategic Management. Art of Strategy Development and Implementation]. Moscow: Banki i Birzhi, UNITY. p579.
- Tsoukas, H., Shepherd, J. (2004), *Managing the Future: Foresight in the Knowledge Economy*. Malden, MA: Wiley-Blackwell. p226.
- Turchinov, A.I. (2012), *Obrazovanie I kadrovaya bezopasnost kak factor ustoychivogo razvitiya Rossii v usloviyah globalizatsii* [Education and personnel safety as factor of stable development of Russia under conditions of globalization]. *Bulletin of the Russian Academy of Education*, 2(22), 5-12.
- Turchinov, A.I., Magomedov, K.O., Kononenko, T.A. (2011), *Sotsiologicheskoy Analiz Problem Kadrovoy Politiki i Upravleniya Personalom v Rossiyskih Organizatsiyah* [Sociological Analysis of Problems Related to Personnel Policy and Personnel Management in Russian Organizations]. Moscow: MAKS Press. p299.
- Vihanskiy, O.S. (1998), *Strategicheskoy Upravlenie* [Strategic Management]. Moscow: Gardarika. p296.
- Yakhontova, E.S. (2013), *Strategicheskoy Upravlenie Personalom* [Strategic Personnel Management]. Moscow: Delo ANH Publishing House. p384.
- Yemov, A.I. (1978), *Sistemny Podhod i Obshchaya Teoriya System* [System Approach and General Theory of Systems]. Moscow: Mysl. p272.