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PERSPECTIVES OF HUMAN RESOURCE DEVELOPMENT IN PETROLEUM INDUSTRY

ПЕРСПЕКТИВИ РОЗВИТКУ ЛЮДСЬКИХ РЕСУРСІВ У НАФТОГАЗОВІЙ ГАЛУЗІ

Анотація. *У статті розглядаються перспективи розвитку людських ресурсів у нафтогазовій галузі, яка є основним джерелом паливно-енергетичних ресурсів. Трансформація світових паливно-енергетичних ринків ставить нові завдання перед українськими нафтовими і газовими компаніями, вимагає нових підходів до організації їх діяльності. Особливу увагу слід приділяти людським ресурсам організації. Людські ресурси в сучасній економіці стають головним капіталом і основною конкурентною перевагою. Розвиток людських ресурсів включає комплекс заходів, спрямованих на спонукання до творчої, ініціативної праці, до неперервного самовдосконалення і навчання протягом усього життя. Зазначено, що у всьому світі нафтогазові компанії, заявляючи про попит на висококваліфікованих спеціалістів у своїй галузі, ініціюють їхню підготовку. У наш час формується принципово новий підхід до забезпечення нафтогазового сектору країни людськими ресурсами нової формації, які володіють підвищеною адаптивністю до запровадження інновацій.*

Ключові слова: *нафтогазова галузь, людські ресурси, професійна освіта, професійна компетентність, конкурентні переваги, інновації, модернізація, людський капітал, прогнозування, розвиток інноваційного потенціалу.*

Annotation. *The article outlines the perspectives of human resource development in petroleum industry that is the main source of fuel and energy resources. The transformation of the world's fuel and energy markets offer new questions for Ukrainian oil and gas companies. This modification demands implementation of new ways to the organization of their activity. The modern position of the petroleum sector is defined by a substantial backlog in comparison to the advanced oil-producing countries in plenty of principal signs, indicators of upgrading activity. The strategy reports of the leading management of the Ukrainian petroleum complex imply the requirement for the improvement of companies' position of competitiveness to the global level, founded on the current progress of science and technology. Continuous development and competitive edge of Ukrainian companies in the world market ought to be secured by the current or more recent and developing or appearing technologies. In order to successfully reach the firm goals it is essential to stimulate and improve novelties in the industry. Close attention should be paid to the personnel of companies. Human resources in current economy are organizations' significant capital and principal vying or competing benefit and advantage. Currently, the competitive rank of the main international companies is mostly defined by the quality of human capital. Abilities and intellectual proficiency of employees, their imaginative activity, awareness of innovation, assurance to growth and accomplishment perform a steadily meaningful impact in companies' competitiveness. At present a crucial state for advances of innovative steps in petroleum sector is to boost the creative activity of personnel. Workforce in petroleum industry should be concentrated on new challenges, ready to accept these problems and their efficient results. It is noted that throughout the world oil and gas companies claim for highly qualified specialists in the field and initiate their preparation. Advancement of human resources involves a series of measures intended at attracting productive, enthusiastic work, continuous self-growth and learning. All above-mentioned can provide the forming of human resources with heightened flexibility to upgrading in the petroleum sector.*

Key words: *petroleum industry, human resources, professional education, professional competence, competitive advantages, innovation, upgrading, human capital, forecast, development of innovative capacity.*

It is necessary to pinpoint that human resource is a complex productive factor of the development of economy and society, the professionals, knowledge, intelligence, high quality and high performance work provide the increase of the national wealth. Anybody can note the tendency of increasing the share of human capital in the structure of the national wealth by the development of individual human capital.

The aim of the study consists in revealing the perspectives of human resource development in petroleum industry.

Theoretical framework of our research is based on the scientific results of pedagogy of professional education and human resources of innovations in oil and gas engineering (V. Balaba) [1, 2], development of human resources (N. Makasheva) [8]; concepts of competitiveness and challenges of oil and gas sector (V. Kershenbaum), a groundbreaking

McKinsey study exposed the "war for talent" as a strategic business challenge and a critical driver of corporate performance, the timeless principles of attracting, developing, and retaining highly talented workers, the strategic importance of human capital (McKinsey & company consultants E. Michaels, H. Handfield-Jones, and B. Axelrod) [10]. The scientists describe how to create a winning EVP (employee value proposition) that will make a company uniquely attractive to talent; move beyond recruiting hype to build a long-term recruiting strategy; use job experiences, coaching, and mentoring to cultivate the potential in employees; and strengthen their talents. Central to this approach is a pervasive talent mindset – a deep conviction shared by leaders throughout the company that competitive advantage comes from having better talent at all levels. Under scientists' analysis, there are the definitive strategic guidelines on how to concentrate on the development and promotion of human resources.

The management constantly develops ambitious projects on a par with its greatest international competitors in the petroleum sector, involving workers on all levels from different countries. Also, for this reason, staff integration is one of our main objectives, as employers consider cultural difference to be a great source of enrichment. The success of the company inevitably passes through its people; in this regard, employers promote and protect their value, providing appropriate tools to allow everyone to achieve their own full potential. An excellent result is usually obtained through high levels of training and staff management, continuously highlighting the capacities and efforts of each one in reaching competitive objectives. It follows that employers place great attention to professional research and development of talents as well as technical and managerial training.

One of the reasons for success of petroleum industry as major and outstanding companies of oil, gas and petrochemical industries is concentrating on the development and promotion of human assets. In this regard and in order to promote and develop the capacities of its activities, the management is considered the capable and experienced personnel as its most valuable assets of its main priorities. To achieve this significant issue and according to the executed analysis, different measures are taken to define and perform in the human resources and administration management.

Petroleum companies employ a multinational team of professionals. A variety of people bring their efforts, skills and talents together to help companies' stake their leading market positions. Of course, the personnel management system of these companies rely on the Functional Human Resource Strategy, the Code of Business Conduct, Corporate Culture Rules and the Social Code [3, p. 14]. The Social Code defines the corporate citizenship principles used by the company to manage labor relations (including fringe benefits and guarantees available to its employees) and those existing between the company and the public, as well as a number of other personnel management regulations.

The personnel management policy mainly concentrates on ensuring the maximum personnel investment efficiency through establishment of a system that would: motivate each employee to accomplish the company's goals; ensure unbiased assessment of the achieved results; adequately encourage and reward the employees for their achievements. Apart from this, the personnel management policy is based on five interconnected areas: performance efficiency enhancement across all levels; recruitment of the "cream of the crop" and efficient management of their capabilities and potential; training and development, personnel potential planning; establishment of an efficient compensation package system; establishment of an efficient and robust company, its continuous development.

The key personnel development focus areas include introduction of state-of-the-art personnel assessment and training techniques; elaboration of corporate and target training programs; development of the e-learning system, cooperation with universities. More than fifty per cent of the petroleum companies yearly join various advanced training and professional retraining programs, attend workshops and trainings. Moreover, employees can join the e-learning system (ELS). The ELS website features over some hundreds learning courses. The ELS capabilities ensure training, pre-appraisal preparation and appraisal of all health and fire safety executives and specialists of the companies. For employees' convenience they can join the ELS at any time, including via their own PCs.

The war for traditional technical talent is now less fierce, while intensifying for new skill types. The scientists consider three approaches for workforce of the future in oil and gas, with implications for human resource strategy and operating model. During the last decade, the petroleum industry occurred a sense of resource deficiency, leading to high oil prices for most of the period. Mixed with globalization, this guided to a global "war for talent" and the formation of centralized technical actions that could expand lack of skills around the world. But three fundamental changes are disrupting the oil and gas industry, with essential implications for industry players. Firstly, resource supply and the demand to be trained for a constant period of lower oil prices and a concentration on cost, productivity, and velocity. Common talent is no longer scarce, exploration ability is less of a differentiator, megaprojects are not the only way to grow, and market opportunities may only be economical for the earliest movers in a basin. Meanwhile, conventional, deepwater, unconventional, and renewable assets each need a different operating type that cannot be delivered optimally from a single corporate center. Secondly, profound technological improvements are replacing the outdated means of working and enabling step changes in productivity [10, p. 108]. Automation is restoring workers (including knowledge workers) on a large rank, and the jobs that remain need increased human-machine interaction.

As more devices connect to the cloud, data generation keeps to grow exponentially. This explosion of data, combined with advanced analytics and machine-learning tools, lets companies fundamentally reimagine how and where work gets done. Thirdly, demographic shifts mean that employees are demanding changes in the working environment and expressing concerns about the role of oil and gas companies in society. Millennials will soon constitute the majority of the workforce in developed markets, and have already started their climb into management and executive roles. These digital natives bring their own expectations regarding technology, collaboration, pace, and accountability. At the same time, a well-educated, globally competitive talent base has grown rapidly in emerging markets.

The petroleum companies use up-to-date portal technology to actively develop its corporate knowledge management system that makes it possible to share expertise both between the employees and entities of the field. The corporate knowledge management system currently covers such company operations as upstream operations, refining and petrochemicals, power engineering, petroleum product supply, human resources and organizational development, economics and planning, taxation and accounting.

Just as new skills and capabilities are required to succeed in a new industry environment, the same is true for mind-sets and behaviors. For example, day-to-day leadership capabilities must continue to appear as oil and gas becomes more like other manufacturing industries, with a focus on efficiency and continuous improvement. This requires a cultural and organizational shift toward more autonomous frontline leaders and teams, without putting safety at risk. These changes will create a flatter structure where the relevant skills for the task at hand become increasingly important relative to the person's level in the hierarchy. At the same time, technology is already changing the way workers communicate and access information across company boundaries [5, p. 63]. With instant access to information and expertise, people at lower levels in a company can make increasingly informed decisions. Carefully exploring these opportunities can not only help to deliver direct business results, but will also help to accommodate demands for more meaningful work from the next generation of talent.

Managing for value and energy is based on the idea that each employee creates ever more business value with more automation and digital tools at his or her disposal, leading to increasing returns on investment in personalized development and support for top performers to get the most out of their efforts. People analytics and digital tools will provide human resource with the means to deliver these individualized, just-in-time, and forward-looking interventions, while artificial intelligence and automation can begin to release human resource from transactional services and simple judgment- or expertise-based tasks. Also, more flexible organizational models also equip human resource with powerful tools to increase the pace of change and promote continuous improvement, as new technology enables fundamentally different ways of managing human interaction and how they work.

At a time of rapid advances in artificial intelligence, automation, and human-machine interaction, people will remain core to oil and gas companies and their human resource functions. In essence, at all levels of the company, each employee demands to create ever more business value [9, p. 32]. Given this reality, and the wide productivity differences between average and top performers, human resource's strategic importance is increasing. In particular, human resource will create value by identifying the right person for each job in a more fact-based manner, and supporting these people to perform to their full potential.

It should be mentioned that petroleum companies consider such four strategic actions, as 1) provide more tailored development for key employees to support them in their role and context; 2) drive the shift from programmatic change to continuous improvement, for example, work toward empowering leaders and pilot alternative operating models; 3) develop a road map for people analytics with a combination of proven techniques with a clear link to value creation and more experimental, but high-value applications; 4) build out your digital talent strategy to support each business area in responding to technological advances [11, p. 28].

As in other areas of oil and gas companies' business, artificial intelligence, analytics, and digital tools will also provide value-creation opportunities within the human resource function. Therefore, human resource itself must start to build capabilities in these fields. Particularly, human resource must develop in-house translators. Such a translator is a person who understands not only data and analytics but also strategic human resource capabilities like business and industry knowledge. The translator acts as a "product owner" when the company considers external people analytics and other digital solutions, ensuring that external teams focus on solving the problems that will create the most business value. Similarly, the translator works with internal business leaders to understand their needs and facilitates changes based on analytical insight. Artificial intelligence and digital tools also allow traditional human resource service delivery with fewer human resource people, even compared to the already significantly reduced human resource workforce of today [7]. This is true not only for standardised tasks like payroll, but also for judgment-based tasks like advising employees on relevant training programs. With flow-to-the-work staffing, needs for human resource expertise are reported and people allocated by a dedicated staffer, who has a dual responsibility for meeting business needs while providing personalized development for human resource people. It should be stated that several companies are already exploring these types of models in other areas, and there are companies that are successfully doing the same in human resource.

Pool-based staffing also helps embed more human resource employees (part- or full-time) in business projects. For example, if a company runs a project to optimize well-planning, one or more people from the human resource staffing pool might be staffed full time on the project team to evaluate the implications for employee well-being, or even to generate insights into well-planning team performance using people analytics. This type of engagement supports both a more strategic human resource role and an overall trend toward autonomous, cross-functional teams committed to solving specific business problems. Paradoxically, moving human resource people from the business to centralized, pool-based staffing enables much tighter integration with the business and more direct influence on strategy and business value creation.

Today and moving forward, a company's ability to manage talent will be a driver, an enabler, or a major constraint in creating a competitive advantage and business value. HR must be a part of or even help shape the business and talent strategy discussion early on, supported by data-driven, well-founded perspectives about the talent challenges and opportunities that the company will face.

Furthermore, with ever more value generated by each employee, maintaining and further developing a strong talent culture becomes increasingly important. Ultimately, a strong talent culture is built and maintained through implementation of sound human resource practices [4, p. 19]. By capturing some of these opportunities, oil and gas companies will not only improve delivery of specific personnel services, but also lift the role of strategic human resource and further develop their own talent cultures to set up for lasting, stronger organizations.

There is a clear realization that merely being compliant is not appropriate if the goal is to continually improve workforce safety and skills. It is obvious that too great focus on compliance does lead to complacency. Many employees feel that their company approach and the compliance and competence regimes are exemplars which could be translated into industry wide standards. There is overall an appetite for greater consistency and global standards in competence management to be established. There is also a desire for greater openness and knowledge sharing across the industry in terms of competence management: however, it is also acknowledged that this will be difficult when it is regarded by many companies as providing a competitiveness. This might include specifications of competencies for roles and standards on competence levels and assessment. It is recognized that certification does not equate to competence and more attention needs to be paid to the outcomes of training programs.

As a consequence, the personnel management of the petroleum industry begins to be more adjusted to the inclinations related with the worldwide strategic purposes including the novelties and capital fund development of the field. Many experts point out that there is a fundamentally fresh way for supplying the state's oil and gas area by labour force of current model, e. g. workers with strong adaptation capability to novelties. This needs the excessive use of recent methods to encourage the development of regulation capability and innovation interest of employees. In consideration of favorable fulfillment of inventive growth, it is essential to initiate supportive and positive conditions in the working team as well as to present contemporary working techniques with the personnel that allow the workers to comprehend their own possibilities.

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