

*Moldakenova E. K., Yersultankyzy A.  
L. N. Gumilyov Eurasia National University,  
Nur-Sultan, Kazakhstan, kraunplaza@mail.ru*

## **FUNCTIONING MECHANISM OF INNOVATION STRATEGY OF NATIONAL COMPANIES**

Within the task set by the President to ensure the implementation of the Third Modernization of Kazakhstan the steady formation of the innovation strategy of national companies is becoming most relevant [1].

One of the main priorities of economic development in the modern period has been the increase of the competitiveness of the national economy in both domestic and international markets. The international experience shows that this can be achieved only on the basis of transferring the economy to the way of innovative development since domestic companies currently experience the increasing competition of international markets.

The rapid development of knowledge-intensive industrial sectors in recent years has become the main factor influencing the situation in the global economy and the position of countries in the system of international division of labor which makes it necessary to use in Kazakhstan internationally accepted criteria for the effectiveness of participation in the world economic development and above all for the competitiveness. In this area the analysis of the existing approaches and methods for determining the research intensity and competitiveness of the company is exceptional value which increases many times due to the growing globalization of the world economy. Elaborate study of these issues contributes to the determination of priorities for improving competitiveness, and developing competitive relations.

The management of innovative transformations is inextricably connected with the development and implementation of an innovation strategy. The value of an innovation strategy lies in the timely concentration of management efforts on mastering and using promising achievements of scientific and technological development and the timely provision of resources to the dynamics of innovation in favor of the enterprise's goals, and creating conditions for the long-term effectiveness of its activities.

In order to enter the world market, the domestic companies need not only technological modernization but also the creation of their own infrastructures, the elimination of the gap between the raw material base and the available capacities. This requires the set of measures to increase the attractiveness of investing, the transfer of the tax burden from the sphere of production to the sphere of circulation. New approaches are required in identifying the stages of innovation processes substantiating the areas and priorities for the development of an innovation strategy for increasing the competitiveness of domestic products [2].

The most important indicator of the progressiveness and competitiveness of the enterprises should be the research intensity of the production process, the share of R&D (research and development) costs in the total volume of production costs [3].

Accepting competitiveness as the main indicators it is necessary to connect it inseparably with research intensity which is particularly visible in the production processes of recent years. They widely use fundamentally new ways of processing products, electronization and complex automation of production processes. An important direction of the modern period is the improvement of resource saving technologies. More complete use of raw materials makes it possible to create low-waste and non-waste production. Consequently, in the modern period the priorities of economic modernization are the creation

and development of potentially competitive industries an important area of which is innovative development. The innovative approach for the country's competitiveness is one of the perspective directions for development of economy as a globally recognized factor of economic development [4].

Innovation strategy in any industry involves the combination of objectives of technical investment policy and should be aimed at introduction of new technologies and types of products. It is intended to provide for selecting certain subjects of research to help the Company primarily carry out a systematic search for new technological opportunities. In this area the development of innovative strategies is focused on achieving future results directly through the innovation process. The strategic management of innovations is focused on getting future results and affects both conceptual and entrepreneurial aspects as well as organizational and procedural aspects of the strategic development of the enterprise and therefore implements its function through the subsystems of general and functional management and determines the general line of strategic development as well [5]. In the process of management the functional strategic tasks are developed and realized concerning innovations in certain areas of the enterprise: marketing, sales, production, HR, financial, and other areas. The choice of the production area development should be made on the basis of analysis and forecast of the market products, capacity of production facilities and opportunities for their expansion, technological structure, demand for investment resources and so on. In turn the demand for investment is calculated on the basis of production costs for one area or another and a plan for a further increase in profits.

In this regard it is advisable to familiarize with the strategy of the largest national company in Kazakhstan — “KazMunayGas”. The national company “KazMunayGas” (KMG) is a Kazakhstani operator in the exploration, production, processing and transportation of hydrocarbons representing the interests of the state in the oil and gas industry of Kazakhstan. The Joint Stock Company “National Company KazMunayGas” was founded by merging the National Oil and Gas Company “Kazakhoil” and the National Company “Transport Nefti I Gaza” according to the Decree of the President of the Republic of Kazakhstan dated February 20, 2002. Ninety percent of the KMG shares are owned by the JSC “National Wealth Fund Samruk-Kazyna”. Ten percent of the KMG shares are owned by the National Bank of the Republic of Kazakhstan [6].

The national company “KazMunayGas” is a vertically integrated oil and gas company carrying out a full production cycle from the exploration and production of hydrocarbons, their transportation and processing to rendering of specialized services. The KMG aims to ensure maximum benefits for the Republic of Kazakhstan from participation in the development of the national oil and gas industry.

The KMG group of companies includes 220 companies. “KazMunayGas” has more than a quarter of Kazakhstan’s oil and gas condensate market as well as a dominant position in oil refining and pipeline transportation of oil and natural gas in the country.

Today, the largest companies of the “KazMunayGas” group are:

– JSC “Exploration Production KazMunayGas” (exploration and production of oil and gas);

– JSC “KazTransOil” (oil transportation);

– JSC “KazTransGas” (transportation and sale of gas);

– JSC “KazMunayTeniz” (marine oil operations);

– JSC “KazMunayGas — refining and marketing” (sales of oil and oil products in the domestic and international markets);

– KMG International N.V. (oil refining, marketing of oil and oil products in Romania and the countries of the Black Sea and Mediterranean basins).

Kazakhstan ranks 12th in the world in proven reserves of oil and gas condensate, 22nd in terms of natural gas reserves and 17th in oil and gas production.

JSC OC “KazMunayGas” produces 28 % of the total oil and gas condensate production in Kazakhstan and 16 % of natural and oil-associated gas, provides 65 % of oil transportation by main pipelines, 77 % of oil transportation by tankers from Aktau port, and 95 % of natural gas transportation by main gas pipelines, the JSC processes 82 % of Kazakhstani oil with a 17 % share of the retail market for oil products. JSC OC “KazMunayGas” is one of the largest employers with personnel of over 90 thousand people [7].

In accordance with the Development Strategy of JSC OC “KazMunayGas” until 2025, KMG confirms its commitment to the developed direction of development and achievement of the shareholders' aims: to increase the long-term value of the Company's assets and promote modernization and diversification of the Kazakhstan economy.

Highly efficient national oil and gas producing and oil and gas transportation company that meets the highest standards of security and corporate governance.

Within the KMG competitiveness enhancement, KMG Strategy for Innovation and Technology Development for 2014–2018 was developed and approved by the Board of Directors' decision. Conduction of this Strategy is aimed at attaining the Company's strategic goals and creating the necessary conditions for a wide use of innovations, breakthrough, resource/energy saving, environmentally friendly technologies in all KMG business sectors.

In order to provide the implementation of the ITR Strategy in the company, an action plan for its implementation, including lists of research and development, innovative projects and corporate events, is developed on an annual basis.

The basis of the innovation infrastructure of the Company is formed by such subsidiaries as: LLP “Research and Development Institute of Mining and Drilling Technologies KazMunayGas”, JSC “KazNIPIMunayGas” (Aktau city), LLP Research Institute “Caspimmunaygas” (Atyrau city), JSC “Kazakhstani-British University”, A. B. Bekturov Institute of Chemical Sciences (Almaty city), and D. V. Sokolskiy Institute of Organic Catalysis and Electrochemistry (Almaty city).

The major directions of research and development for the period 2014–2018:

- Conduction of research on the study of perspective areas in order to expand areas for planning field geological exploration.
- Improvement of the system management efficiency of oil exploration and development.
- Introduction of modern technologies for cleaning main oil pipelines and tanks.
- Research and introduction of advanced methods and technologies to improve the corrosion resistance of pipelines.
- Extraction of coal mine methane in the Karaganda coal basin.
- Implementation of research in the sector of oil refining and petro chemistry for the purpose of enhancing the level of production efficiency, reducing operating costs, staff in-service training.

The research and development plan is formed with due regard to the limitations of the resources allocated to research and development conduction. The allocation of resources for research and development is implemented in the following areas:

- work transferred from the plan of the previous year, the need for which is confirmed annually;
- developments that make it possible in the near future to achieve a commercial result;
- research aimed at solving prospective scientific and technical problems in accordance with the strategic aims of the company;

– research work, the need for implementation of which is determined by the requirements of economic activity (standards, regulatory and methodological developments in the field of environmental and industrial safety, development of the regulatory framework for resource consumption, predictive and analytical research, etc.);

– initiative research, i.e. research which is not related to the company's plans.

The thematic research and development plan for development is based on the priorities of the innovation strategy and the ranking of the effectiveness of the proposed solutions, and the condition of comprehensiveness of the work to be carried out must be observed. The intended effect from implementation of these developments can be taken into account in the company's short-term and medium-term plans (the next iteration of the formulation of the general corporate strategy is implemented). The selection of research and development topics, including research works, can be made on the basis of expert assessments [8].

The development of such field of activity means not just the sale of the by-products of a scientific and technical activity, but its calculated expansion. The experience of a number of foreign companies shows that this is a fairly profitable type of business, and many of them have made it one of their main activities.

The most characteristic trends in the management of research and development of major corporations are as follows [9]:

– focusing on a small set of key technological competencies within own research and development laboratories and their support and development;

– participation and involvement of suppliers in innovative processes at increasingly earlier stages of new technological developments;

– multi-project management and resource allocation, rejection of all non-target research projects;

– preference for research projects with shorter terms of development and launch of new products and services on the market;

– the complication and tightening of leadership requirements for the process of generating new ideas leads to the geographical dispersion of research and development laboratories and their integration into corporate research and development networks.

It is very important for formation and conduction of an innovation strategy in an oil company to have the appropriate scientific and technical management. A manager in the innovation sphere is not only an expert in a particular technical field of knowledge, but also an expert, researcher, organizer and manager all in one. The availability of such staff in the company already gives it a competitive advantage.

For the successful carrying out scientific and technical achievements in the company, it is important to create a system to stimulate the flow of innovation processes throughout its cycle: from idea to commercial realization. For this purpose, along with the incentive methods applied by the state, special corporate methods of encouraging the innovative activity of organizations, creative teams and individual specialists can be used.

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*Гришко Н. В.*

*д.э.н., проф., зав. каф. учета и аудита,*

*Попова Е. О.*

*аспирант*

*ДонГТУ, г. Алчевск, ЛНР*

## **ПРОБЛЕМЫ ОЦЕНКИ КОНКУРЕНТОСПОСОБНОСТИ ПРОМЫШЛЕННОГО ПРЕДПРИЯТИЯ В УСЛОВИЯХ ЦИФРОВОЙ ТРАНСФОРМАЦИИ**

В настоящее время понятие конкурентоспособности промышленного предприятия теряет свою актуальность. Это объясняется тем, что конкурентоспособность оценивается по устаревшим методикам. В конечном итоге результаты, полученные при оценке, могут привести к убытку промышленного предприятия.

С точки зрения некоторых ученых, считается что переход на цифровую экономику, позволит повысить актуальность вопроса оценки конкурентоспособности промышленного предприятия. В связи с этим необходимо провести исследование и выяснить: оценку, проблемы при оценке конкурентоспособности промышленного предприятия в условиях цифровой трансформации, как их устранить.

Конкурентоспособность промышленного предприятия является базовым понятием в современной экономики, выступающая в качестве инструмента повышения эффективной деятельности промышленного предприятия. Промышленное предприятие, поддерживающее свою конкурентоспособность на должном уровне, обеспечивает этим более высокий уровень прибыли и рентабельности, а также достигает устойчивого функционирования на рынке.

По мнению российского ученого Бабкина А. В., цифровая трансформация промышленных предприятий применяется для усовершенствования производства, рабочей среды и взаимодействия с заказчиками. Также цифровая трансформация позволяет повысить показатели производительности, качества, охвата рынка и снизить себестоимость продукции. предоставляет новые возможности для формирования конкурентных преимуществ, улучшения конкурентной позиции [1].

В силу высокого динамизма конкурентной среды, как считает автор [2], требуется постоянная оценка конкурентоспособности промышленного предприятия с учетом специфики цифровой экономики. Как известно для оценки конкурентоспособности промышленного предприятия применялись различные методы и методики. В настоящее время, в условиях цифровой трансформации, эти методы устарели, поэтому необходимо использовать методы, позволяющие оценить конкурентоспособность на более высоком уровне.

При положительном результате оценки конкурентоспособности промышленное предприятие считается конкурентоспособным. Отрицательный результат, свидетельствует о выявленных проблемах.

При оценке конкурентоспособности промышленного предприятия в условиях цифровой трансформации, кроме проблем, возникающих по разным причинам добавляются и проблемы цифровизации, которые представлены на рисунке 1.



Рисунок 1 — Основные проблемы, появляющиеся при оценке конкурентоспособности промышленного предприятия в условиях цифровой трансформации

К основным причинам появления проблем повышения конкурентоспособности относятся:

- а) низкий уровень конкурентоспособности, подразумевает малую вероятность потенциального коммерческого успеха;
- б) несовершенство налогового законодательства может привести к неконкурентоспособности промышленного предприятия;
- в) снижение производительности труда связано с низким уровнем конкуренции, изношенностью оборудования, недостатком инвестиций;
- г) отсутствие комплексной количественной методики оценки конкурентоспособности затрудняет исследование преимуществ и недостатков по сравнению с конкурирующими промышленными предприятиями.

Причинами появления проблем цифровизации являются:

- а) недостаточная финансовая поддержка государством промышленного предприятия процесса цифровой трансформации не позволит провести модернизацию промышленного предприятия;
- б) нехватка высококвалифицированных специалистов в сфере информационно-компьютерных технологий затормозит развитие цифровой трансформации;
- в) недостаток инвестиций на приобретение и внедрение новых технологий не позволит промышленному предприятию применить инновации;
- г) нарушение цифровой безопасности представляет собой кражу чужого имущества или приобретение права на чужое имущество путем обмана или злоупотребления.

Для решения этих проблем используют современные направления, способствующие повышению конкурентоспособности промышленного предприятия. Рассмотрим самые актуальные.

Первое направление — бенчмаркинг является одним из самых эффективных и актуальных [3, 4]. Бенчмаркинг представляет собой изучение других предприятий с целью получения от них знаний и информации для улучшения своего бизнеса.

Второе направление — внедрение лизинговых операций. Лизинговые операции — долгосрочная аренда материальных ценностей в пользование имущества для предпринимательской деятельности [5].

Третье направление, связано с внедрением инновационной политики промышленного предприятия. Инновационная политика представляет собой возможность промышленного предприятия конкурировать на внутреннем и внешнем рынках. Внедрение способствует устранению дефицита финансовых ресурсов [6].

Четвертое направление — исследование маркетингового рынка. Основной целью направления является установление потребностей покупателей.

Пятое направление — повышение материальной заинтересованности работников и улучшение условий труда. Данное направление способствует повышению числа работников предприятия и повышению производительности труда.

По результатам исследования были выявлены основные проблемы оценки конкурентоспособности. Предложены направления для устранения этих проблем, способствующие повышению эффективности производства, конкурентоспособности, рентабельности и платежеспособности.

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