

A.F. Tsekhovoy , E.S. Mukhtar\*

Union of Project Managers of Kazakhstan, Kazakhstan, Almaty,  
\*e-mail: pravovedprof@gmail.com

## BACKGROUND FOR FORMING AN INNOVATIVE MODEL OF ENTERPRISE DEVELOPMENT IN KAZAKHSTAN

The scientific article examines the issues and prerequisites for the need to create an innovative model of strategic development, where an important place is given to the state in improving the competitiveness of the RK on a regional and sectoral scale. Along with this, the mission of the state is to create conditions for the implementation and development of promising large-scale innovative projects operating in a safe environment. The construction of a strategic model of innovative growth is an objective necessity in improving the well-being of individual enterprises in the republic.

The above means that at the modern stage of development of Kazakhstani society, it is necessary to develop a national model of a strategy for innovation development of domestic enterprises in conditions of state regulation, which determines the target setting of scientific research in the presented article.

To achieve this goal, the authors of the article consider it necessary to perform such tasks as the study of the theoretical and methodological foundations of innovative development and approaches to the formation of an enterprise strategy based on innovation; study of domestic and foreign experience of effective innovative development of enterprises, identification and substantiation of priorities for innovative development of enterprises, ensuring the achievement of the set strategic goals; determination of the most effective ways and mechanisms for the development of innovative strategies, implemented by enterprises of Kazakhstan, through the use of economic and mathematical modeling and forecasting.

**Key words:** development strategy of Kazakhstan, state regulation, innovative development, competitiveness of enterprises, innovative model of economic growth, strategic management, knowledge-based economy.

А.Ф. Цеховой, Е.С. Мухтар\*

Қазақстанның жоба менеджерлерінің одағы, Қазақстан, Алматы қ.,  
\*e-mail: pravovedprof@gmail.com

## Қазақстан кәсіпорындарын дамытудың инновациялық моделін қалыптастырудың алғышарттары

Ғылыми мақалада ҚР бәсекеге қабілеттілігін өңірлік және салалық ауқымда арттыру ісінде мемлекетке маңызды орын берілетін стратегиялық дамудың инновациялық моделін құру қажеттілігінің мәселелері мен алғышарттары қарастырылады. Бұл ретте мемлекеттің рөлі қауіпсіз ортада жұмыс істейтін перспективалы ірі ауқымды инновациялық жобаларды енгізу және дамыту үшін жағдай жасау болып табылады. Инновациялық өсудің стратегиялық моделін құру республикадағы жекелеген кәсіпорындардың әл-ауқатын арттыру ісінде объективті қажеттілік болып табылады.

Жоғарыда айтылғандар қазақстандық қоғам дамуының қазіргі кезеңінде мемлекеттік реттеу жағдайында отандық кәсіпорындардың инновациялық даму стратегиясының ұлттық моделін әзірлеу қажет екенін білдіреді, бұл ұсынылған мақалада ғылыми зерттеудің мақсатты белгіленуін айқындайды.

Қойылған мақсатқа жету үшін мақала авторлары инновациялық дамудың теориялық және әдіснамалық негіздерін және инновацияларға негізделген кәсіпорындардың стратегиясын қалыптастыру тәсілдерін зерттеу; кәсіпорындардың тиімді инновациялық дамуының отандық және шетелдік тәжірибесін зерттеу, стратегиялық мақсаттарға қол жеткізуді қамтамасыз ететін кәсіпорындардың инновациялық даму басымдықтарын анықтау және негіздеу сияқты міндеттерді орындау қажет деп санайды; экономикалық-математикалық модельдеу мен болжауды пайдалану арқылы Қазақстан кәсіпорындары іске асыратын инновациялық стратегияларды дамытудың неғұрлым тиімді жолдары мен тетіктерін айқындау.

**Түйін сөздер:** Қазақстанның Даму стратегиясы, мемлекеттік реттеу, инновациялық даму, кәсіпорындардың бәсекеге қабілеттілігі, экономикалық өсудің инновациялық моделі, Стратегиялық менеджмент, ғылымды қажетсінетін экономика.

А.Ф. Цеховой, Е.С. Мухтар\*

Союз проектных менеджеров Казахстана, Казахстан, Алматы,  
\*e-mail: pravovedprof@gmail.com

## Предпосылки для формирования инновационной модели развития предприятий Казахстана

В научной статье рассматриваются вопросы и предпосылки необходимости создания инновационной модели стратегического развития, где важное место отводится государству в деле повышения конкурентоспособности РК в региональном и отраслевом масштабах. При этом роль государства заключается в создании условий для внедрения и развития перспективных крупномасштабных инновационных проектов, работающих в безопасной среде. Построение же стратегической модели инновационного роста выступает объективной необходимостью в деле повышения благополучия отдельно взятых предприятий в республике.

Вышесказанное означает, что на современном этапе развития казахстанского общества необходима разработка национальной модели стратегии инновационного развития отечественных предприятий в условиях государственного регулирования, что определяет целевую установку научного исследования в представленной статье.

Для достижения поставленной цели авторы статьи считают необходимым выполнение таких задач, как исследование теоретико-методологических основ инновационного развития и подходов к формированию стратегии предприятий на основе инноваций; изучение отечественного и зарубежного опыта эффективного инновационного развития предприятий, выявление и обоснование приоритетов инновационного развития предприятий, обеспечивающих достижение поставленных стратегических целей; определение наиболее эффективных путей и механизмов развития инновационных стратегий, реализуемых предприятиями Казахстана путем использования экономико-математического моделирования и прогнозирования.

**Ключевые слова:** стратегия развития Казахстана, государственное регулирование, инновационное развитие, конкурентоспособность предприятий, инновационная модель экономического роста, стратегический менеджмент, наукоемкая экономика.

### Introduction

In the first President' Address for 2012 a goal of building in Kazakhstan «a welfare society based on a strong state, developed economy and opportunities for universal labor» was set as priority (Strategiya «Kazakhstan – 2050», 2012).

In the state importance of the report «Kazakhstan's path – 2050: Common goal, common interests, common future», the first President of the RK also stressed that our country should develop in such a way as the trends in the world economy determine, «it is important to adjust and strengthen the trend of innovative industrialization to ensure sustainable development of the country for the principles of a knowledge-based economy» (Nazarbayev N.A., 2014).

It is known that the introduction of innovations is the main way to increase the competitiveness of enterprises, to maintain high rates of development and the level of their profitability. However, innovations are a source of development only if they are effectively used and a favorable environment for implementation is created. In this regard, strategic management of the innovative development of enterprises is of particular importance, which orientates production activities to consumer requests, allows for more flexible response and timely changes, and achieves competitive advantages in a strategic perspective. Along with

the state plays an important role, especially when it comes to key industries of strategic importance and impact on the rate of qualitative growth of the country's economy.

The article's core idea is to reason the necessity to formulate recommendations of scientific, methodological and practical character for creating an innovative model for the development strategy of Kazakhstani enterprises, where the regulatory role of the state, supporting strategically important new breakthrough projects across the country, is of great importance.

The article proposes a modern analytical assessment of the strategic activities of enterprises of the RK, oriented and capable of introducing innovative projects, which should ensure the positive dynamics of Kazakhstan's competitiveness on a global scale.

### Literature review.

The works of many foreign and domestic scientists and economists are devoted to the issues of innovative development of enterprises. Among foreign researchers, the works of Schumpeter J., Santo B., Zavalin P.N. should be noted. Fatkhutdinova R.A., Trifilova A.A., Kochetkova S.V., Maksimova Yu. Et al. (Shumpeter J., 2007; Santo B., 1990; Zavalin P.N., 2014; Fathutdinov

R.A., 2008; Trifilova A.A., 2005; Kochetkov S.V., 2006; Maksimov YU., 2006)

The research of Kazakh scientists-economists is devoted to the problems of innovative development, among which are the works of Aubakirova Zh.Ya., Kupeshova S.T., Mutanov G.M., Mukhamediev B.M., Mukhtarova K.S., Sabden O. (Aubakirova ZH.YA., Aitbembetova A.B., 2014; Kupeshova S.T., 2011; Mutanov G.M., 2012; Mutanov G.M., 2014; Muhamediev B.M., 2014; Muhtarova K.S., Myltykbaeva A.T., Asanova A.D., 2016; Mukhtarova K., 2014; Mukhtarova, K., Yesbolganova, G., 2018; Mukhtarova K., Myltykbaeva A., 2016; Muhtarova K.S., Myltykbaeva A.T., Nurmagambetova A.M., 2016; Mukhtarova K.S., Kupeshova S.T., 2015; Mukhtarova K.S., Ashirbekova L.Zh., 2013; Mukhtarova K.S., Kupeshova S.T., 2013; Sabden O., 2009; Mukhtarova, K., Kupeshova, S., Ziyadin, S., Doszhan, R., 2018), etc.

Therefore, historically, the formation of the theoretical basis of innovation studies started at the beginning of 20th century, one of the founders of which is the Austrian economist Josef Schumpeter. The renowned scientist and economist in the sphere of innovation management Schumpeter Jozef became a pioneer in the study of the problems of innovation development within the framework of society as a whole and the enterprise separately. So, he considered innovation as new combination processes resulting from the restructuring of the production activities of the enterprise (including updating the personnel policy - the authors' note). In his opinion, the restructuring of production is accompanied by such innovative processes as the introduction of new technologies, the use of new raw materials, new products, and, accordingly, the emergence of new markets for the production and sale of products. (Shumpeter J., 2007).

Another researcher B. Santo considers innovation through the prism of economic benefit: innovation as «a social, technical and economic process that, through the practical use of ideas and inventions, leads to the creation of products and technologies that are better in terms of properties, and if it is focused on economic benefits, profit, its appearance on the market can bring additional income» (Santo B., 1990).

OECD (2005) defines innovation as the introduction of a new product or significant improvement of it that leads to a new product (product or service), process, new marketing strategy, organizational strategy, new business strategy, organization management, or new external relationships (Dorin Maiera, Adela Mariana Vadastreanu, Timo Keppler, Thorsten Eidenmuller Andreea Maier, 2015).

Various authors, whose works are published in foreign journals, peer-reviewed in Scopus databases, have also paid attention to innovations introduced in enterprises. In particular, the famous scientist-practitioner in the sphere of innovation policy Marcin V. Staniewsky investigated the factors influencing the innovative activity of an enterprise and built a model for assessing the level of influence of innovation in the activity of an enterprise (Marcin W. Staniewski., 2016).

Another representative of foreign science in this area, A. Khazanchi, bases his research on the conviction that the introduction of innovations contributes to maintaining profitability, gaining a competitive advantage and long-term operation of an enterprise (Khazanchi, S., Lewis, M. W., Boyer, K. K., 2007); and the foreign scientist K. Talke – on the fact that innovation is the main factor affecting the efficiency of the enterprise. In his opinion, the more innovations are introduced at the enterprise, the higher the efficiency of its development (Talke, K., Salomo, S., Kock, A., 2011).

Scientist Metts G.A. in his research he paid special attention to the aspects of strategic development and importance of innovation in the formation of an enterprise (Metts, G.A., 2011).

Among the scientists of the Russian Federation, there are also numerous studies in various areas of innovative development. So, Zavalin P.N. considers innovation in terms of cost savings. The study of innovative development, according to the expert, boils down to the following results, which are accompanied by creative processes. This can be accompanied in the form of newly created consumer values, which, due to their importance, are capable of being realized in the future. The foreign expert believes that innovation also requires individuals or organizations using innovative methods to change old habits and stereotypes in their activities.

In addition, the concept of innovation, the Russian scientist continues his opinion, extends to such objects as a new product (or service), new production technologies, as well as the use of innovations in various areas of production activity - in the organizational sphere, in the field of financial work, in scientific research activities and other areas where improvement becomes possible, which provides cost savings or the creation of conditions for such savings (Zavalin P.N., 2014).

Fatkhutdinov R.A. also defines innovation as obtaining an effective result in many areas of the enterprise. Thus, a well-known Russian scientist-economist believes that when we talk about innovations, we mean the final result of the introduction of

innovative processes in order to change the object of management and, accordingly, to obtain such types of effects as economic, social, scientific and technical, ecological and other kinds of effects. (Fathutdinov R.A., 2008).

As for domestic researchers, their field of scientific activity is devoted to the development of innovations in individual regions and industries, the attraction of intellectual property objects into economic circulation, etc. For example, the famous Kazakhstani scientist Orazaly Sabden noted innovation as a completely new process, where the ideas and invention acquire a new economic content (Sabden O., 2009).

Kazakh scientist Mutanov G.M. also widely explores the issues of innovative development, where in the most general form he understands innovation as implemented innovation that provides a qualitative change in processes, products and services, and what is defined as innovation (Mutanov G.M., 2012; Mutanov G.M., 2013).

There is also a group of domestic scientists who have devoted a number of studies of innovations in the regional aspect, in which the emphasis is placed on the study of the ranking of regions of Kazakhstan, their profile and development strategy (Mukhtarova K., Myltykbayeva A., 2016; Muhtarova K.S., Myltykbaeva A.T., Nurmagambetova A.M., 2016; Mukhtarova K.S., Kupeshova S.T., 2015; Mukhtarova K.S., Ashirbekova L.Zh., 2013; Mukhtarova K.S., Kupeshova S.T., 2013).

The list of the above studies is far from complete, since the topic «innovation» is quite popular and relevant both among foreign and domestic specialists, scientists and practitioners. In general, we can come to an unambiguous conclusion that modern trends in scientific research are aimed mainly at studying innovative components, such as labor, financial and material resources, human and production potential, the process of developing and implementing the achievements of technological and scientific progress and practical activities for enterprise management. Meanwhile, topical issues of managing innovative development at enterprises, including the problems of increasing the efficiency of their competitive behavior, choosing alternative and priority directions of the strategy, taking into account the national specifics of the development of the Kazakhstan's economy, have not been studied, which has led to the need for in-depth development of this issue.

In world practice, there are various analogues of research devoted to the innovative strategy of enterprise development in different sectors of the

economy (L. Ermolina, L. Ilyina «Problems and High-Priority Directions of Realization of Innovative Strategy of Development of Fuel and Energy Complex Enterprises», Russia, 2017 y.; Xin Zhu, Ying Li «Research on the Difficulties and Development Strategy for the Construction of Innovative Enterprises», China, 2013; Verity J. «Innovative Perspectives on Strategy», UK, 2012 y.; Klaus North, G. Varvakis. «Competitive Strategies for Small and Medium Enterprises», Germany, 2016 y. and others).

Nevertheless, both in foreign and Kazakhstani projects on the implementation innovative development perspective, the studies are of a scattered nature, aimed at individual sectors of the economy. These studies are not adapted to the Kazakh practice of strategic management. Therefore, we can confidently assert that this problem in the research market does not have a deep and broad study, which is important for the national economy of Kazakhstan.

#### **Materials and methods.**

When conducting scientific analysis, it is necessary to use the research information base, which should include the regulatory legal acts of the Republic of Kazakhstan, data from official statistics of Kazakhstan, reporting data on individual Kazakhstani enterprises and industries, information materials of periodicals and the Internet.

This scientific article recommends the inclusion of a systematic approach methodology using a wide range of general scientific methods and techniques, including: classification and typology, methods of comparative analysis, data grouping, expert assessments, economic, historical and logical analysis, methods of strategic planning and management, economic and mathematical programming, threshold estimates, graphical methods of data processing, etc.

#### **Discussion and Results.**

Based on the tasks outlined in the Industrial and Innovative Development Program of the RK for 2015-2019, the share of innovatively active enterprises should be up to 20% of the total number of enterprises in the country. It was in 2019. Unfortunately, according to the indicators of the statistical bulletin of the program, in 2015 the share of «innovatively active» enterprises out of all those operating in the country was only 8.1%, and in 2016 - 9.3%, that is, domestic enterprises are moving towards programmed 20% indicators of innovative growth at a slower pace. If we consider the share of innovatively active enterprises by sector of the economy,

then statistical data indicate the following: enterprises in the nuclear industry (41.2%), engineering industry (29.6%) and in the hydrocarbon sector of the economy (10.9%) (Pokazateli Gosudarstvennoi programmy industrial'no-innovacionnogo razvitiya Respubliki Kazakhstan na 2015-2019 gg.). In other sectors, there is a weak or complete absence of innovative development.

Official statistics indicate the absence of an innovation component in the strategic development program of most enterprises in Kazakhstan, which predetermined the need for a broader development of this field of activity and the development of a conceptual model of innovative growth in Kazakhstan. In addition, without effective intervention of the state mechanism for the introduction of innovations, especially at the macro level, the implementation of the Government Program and the Innovative Development Concept in the country is threatened, which determines the appropriateness of the leading role of the state of Kazakhstan. The project is important for improving state programs for innovative development of regions and sectors of the Kazakhstan's economy, since its results and main provisions (conclusions and recommendations) can be practically applicable and determine the expansion of the range of consumers – economic entities ready to develop a strategy based on innovations.

Thus, the authors of the article substantiate the importance of developing scientific, methodological and practical recommendations for the formation of a new model creation for starting a strategy for the development of enterprises in Kazakhstan, leading to innovative growth, in conditions of state regulation.

### Conclusions.

In the article, the authors formulated the following conclusions, indicating the need:

- substantiation of the feasibility of forming a key and significant for Kazakhstani enterprises innovative development strategy through the use of their own economic and scientific and technical potential, the choice of alternative options for strategic development in the context of innovative management decisions;

- establishing an effective management system that allows mobilizing additional resources, ensuring the quality of strategic and operational decisions with a focus on the application of innovations;

- development of an innovative model for the strategic development of an enterprise, reflecting the type of its competitive behavior, the possibility of flexible adaptation of production and management systems to dynamically changing market conditions, as well as taking a leading position in the market of goods or services;

- designation of the role of the state in relation to regulation and support of new solutions, which should have a beneficial effect on the process of developing an effective model for the strategic development of Kazakhstani enterprises that have chosen an innovative path of development;

- development of recommendations and proposals for Kazakhstani enterprises, management structures and government agencies involved in the innovative development of Kazakhstan. These proposals should be based on the use of expert assessments and calculations, as well as economic and mathematical modeling and forecasting.

### References

- Poslanie Prezidenta Respubliki Kazakhstan – Lidera nacji Nursultana Nazarbayeva narodu Kazakhstana (2012), «Strategiya «Kazakhstan – 2050»: novyj politicheskij kurs sostoyavshegosya gosudarstva // www.akorda.kz
- Nazarbayev N.A. (2014), Poslanie Prezidenta Respubliki Kazakhstan N.Nazarbayeva narodu Kazakhstana «Kazakhstanskii put' – 2050: Edinaya cel', edinye interesy, edinoe budushchee // www.akorda.kz.
- Shumpeter J. (2007), Teoriya ekonomicheskogo razvitiya / Kapitalizm, socializm, demokratiya. – M.: Eksmo. – 864 s.
- Santo B. (1990), Innovaciya kak sredstvo ekonomicheskogo razvitiya / B. Santo; per. s veng. B. V. Sazonova. – M.: Progress. – 295s.
- Zavalin P.N. i dr. (2014), Osnovy innovacionnogo menedzhmenta: teoriya i praktika /Uchebnoe posobie. – M.: Ekonomika. – 475 s.
- Fathutdinov R.A. (2008), Innovacionnyj menedzhment. – SPb.: Piter. – 448 s.
- Trifilova A.A. (2005), Ocenka effektivnosti innovacionnogo razvitiya predpriyatija: monografiya. – M.: Finansy i statistika. – 304 s.
- Kochetkov S.V. (2006), Ocenka innovacionnogo potenciala promyshlennyh predpriyatij / S.V. Kochetkov // Ekonomist. – № 5. – S. 34-38.
- Maksimov YU. (2006), Innovacionnoe razvitie ekonomicheskoy sistemy: ocenka innovacionnogo potenciala / YU. Maksimov, S. Mityakov, O. Mityakova, T. Fedoseeva // Innovacii. – № 6. – S. 41-43..
- Aubakirova ZH.YA., Aitbembetova A.B. (2014), Strategii i faktory dal'nejshei industrial'no-innovacionnoi modernizacii Respubliki Kazahstan / Monografiya pod obshchei red. B.M. Muhamedieva «Dinamicheskoe ravnovesie i innovacionnye processy v Kazakhstane». – Almaty: Kazak universiteti,– S. 82-90.
- Kupeshova S.T. (2011), Innovatsionalnyy menedzhment: Okulyk. – Almaty: ZHSSHRPBK «Daur». – 256 b.

- Mutanov G.M. (2012), *Innovacii: sozdanie i razvitie*. – Almaty: Kazak universiteti. – 244 s.
- Mutanov G.M. (2014), *Innovacionnyj menedzhment /Uchebnik*. – Almaty: Kazak universiteti. – 252 s.
- Muhamediev B.M. (2014), *Dinamicheskoe ravnovesie i innovacionnye processy v Kazahstane / Monografiya*. – Almaty: Kazak universiteti. – 209 s.
- Muhtarova K.S., Myltykbaeva A.T., Asanova A.D. (2016), Analysis of the mechanism of state regulation of innovative projects in the regions of the Republic of Kazakhstan // *Vestnik KazNU (seriya ekonomicheskaya)*. – №2 (114). – S. 60-64.
- Mukhtarova K. (2014), Kazakhstan innovation system // *Interdisciplinary Behavior and Social Sciences – Proceedings of the 3rd International Congress on Interdisciplinary Behavior and Social Sciences, ICIBSoS*, <https://www.scopus.com/authid/detail.uri?authorId=55795620400>
- Mukhtarova, K., Yesbolganova, G. (2018), Perception of innovations by public enterprises in Kazakhstan // *Academy of Strategic Management Journal*, CiteScore – 1.7, SJR – 0.402, процентиль – 53% / <https://www.scopus.com/authid/detail.uri?authorId=55795620400>
- Mukhtarova K., Myltykbaeva A. (2016), Innovation Potential of Kazakhstan's Regions: Evaluation and Ways for Development // *Eurasian journal of social sciences and humanities*. – Vol. 1, № 2. – PP. 33-36.
- Muhtarova K.S., Myltykbaeva A.T., Nurmagambetova A.M. (2016), Studying the experience of the state regulation of innovative projects in Almaty // *Vestnik KazNU (Seriya ekonomicheskaya)*. – №2 (114). – S. 66-71.
- Mukhtarova K.S., Kupeshova S.T. (2015), Innovative Development of Kazakhstan: Problems and Perspectives // *2015 International Conference on Business and Economics (ICBE2015)*. – South Korea, Seoul. – PP. 311-314.
- Mukhtarova K.S., Ashirbekova L.Zh. (2013), Management of Regional Economies in Kazakhstan, in Terms of Innovation Development // *World Applied Sciences Journal, Russia*. – 25 (11). – PP.134-146.
- Mukhtarova K.S., Kupeshova S.T. (2013), Development of Innovative activity in Republic of Kazakhstan // *Middle-East Journal of Scientific Research, UAE*. – 14 (1). – PP. 211-223
- Sabden O. (2009), *Konkurentosposobnaya ekonomika i innovacii*. – Almaty: Eksklyuziv, – S 151.
- Mukhtarova, K., Kupeshova, S., Ziyadin, S., Doszhan, R. (2018), Problems of developing the foundations of sustainable competitiveness of industrial and innovative economy in Kazakhstan // *Economic Annals-XXI: Volume 168, Issue 11-12, Pages: 38-43, June 11*, /<https://www.scopus.com/authid/detail.uri?authorId=55795620400>
- Dorin Maiera, Adela Mariana Vadastreanu, Timo Keppler, Thorsten Eidenmuller Andreea Maier (2015), Innovation as a part of an existing integrated management system / *Procedia Economics and Finance 4th World Conference on Business, Economics and Management, WCBEM*. – PP. 1060 – 1067.
- Marcin W. Staniewski. (2016), Entrepreneurship and innovativeness of small and medium-sized construction enterprises. *International Entrepreneurship and Management Journal*, Volume 12, Issue 3, 861–877 pp.
- Khazanchi, S., Lewis, M. W., Boyer, K. K. (2007), Innovation-supportive culture: the impact of organizational values on process innovation. *Journal of Operations Management*, 25(4), 871–884 pp.
- Talke, K., Salomo, S., Kock, A. (2011), Top management team diversity and strategic innovation orientation: the relationship and consequences for innovativeness and performance. *Journal of Product Innovation Management*, 28, 819–832 pp.
- Metts, GA. (2011), Decision making and strategy development in SMEs: an empirical investigation into the role of adaptation. *International Review of Business Research Papers*, 7(6), 65–83 pp.
- Statisticheskii byulleten' «Pokazateli Gosudarstvennoi programmy industrial'no-innovacionnogo razvitiya Respubliki Kazahstan na 2015-2019 gg.» // <http://stat.gov.kz/>