#### Торайғыров университетінің ҒЫЛЫМИ ЖУРНАЛЫ

### НАУЧНЫЙ ЖУРНАЛ Торайгыров университа

# **Торайғыров университетінің ХАБАРШЫСЫ**

**Экономикалық сериясы** 1997 жылдан бастап шығады



# **ВЕСТНИК**Торайгыров университета

Экономическая серия Издается с 1997 года

ISSN 2710-3552

№ 2 (2024)

Павлодар

#### НАУЧНЫЙ ЖУРНАЛ Торайгыров университета

#### Экономическая серия

выходит 4 раза в год

#### СВИДЕТЕЛЬСТВО

о постановке на переучет периодического печатного издания, информационного агентства и сетевого издания № KZ93VPY00029686

#### вылано

Министерством информации и коммуникаций Республики Казахстан

#### Тематическая направленность

публикация материалов в области экономики, управления, финансов, бухгалтерского учета и аудита

#### Подписной индекс - 76133

https://doi.org/10.48081/UMJO2472

#### Бас редакторы – главный редактор Давиденко Л. М. $\partial o \kappa mop \ PhD$

Заместитель главного редактора Ответственный секретарь

Гребнев Л.. С., *д.э.н., профессор* Шеримова Н. М., *магистр* 

#### Редакция алкасы – Редакционная коллегия

Шмарловская  $\Gamma$ .  $\Lambda$ .,  $\partial$ .э.н.,  $npo\phieccop$  (Беларусь);

Кунязов Е. К., доктор РhD, доцент;

Алмаз Толымбек, доктор PhD, профессор (США);

Мукина Г. С., доктор PhD, ассоц. профессор, доцент;

Алтайбаева Ж. К.,  $\kappa$ .  $\beta$ .н.

Мусина А. Ж., к.э.н., ассоц. профессор, доцент;

Титков А. А., к.э.н., доцент;

Омарова А. Р. технический редактор.

За достоверность материалов и рекламы ответственность несут авторы и рекламодатели Редакция оставляет за собой право на отклонение материалов При использовании материалов журнала ссылка на «Вестник Торайгыров университета» обязательна SRSTI 06.81.23

https://doi.org/10.48081/RYAY2300

#### \*G. A. Arkhatova, D. M. Mukhiyayeva

L. N. Gumilyov Eurasian National University, Republic of Kazakhstan, Astana, \*e-mail: arhatova813@gmail.com

## CORPORATE INNOVATION SYSTEMS AND THEIR DEVELOPMENT IN KAZAKHSTAN

In modern research, the corporate innovation system is one of the most actively studied industries. The purpose of the article is to determine the impact and importance of the corporate innovation system on the economic efficiency of the company, to consider the development of corporate innovation systems in Kazakhstan. In the article, we will study the importance of corporate innovation systems in the modern business landscape. The key aspects highlighting the importance of an innovative culture in the corporate sector, including stimulating competitiveness, attracting and retaining talent, are discussed. And consider various models of the corporate innovation system, such as open innovation ecosystems, innovation contests and accelerators, and Intrapreneurship. The article examines the current trends in the development of corporate innovations. The main focus is on the role of corporate innovation in the economic development of the country and the identification of possible ways to improve innovation activity in the business environment of Kazakhstan. The foreign experience of corporate innovation systems was also reviewed. Innovative corporate systems in domestic companies are investigated.

Keywords: innovation, corporate innovations, corporate innovation system, open innovation, innovation activity

#### Introduction

Today, companies are solving a common task: how to survive in competition with fast, flexible and responsive young innovative companies that annually update their product lines. In this regard, the implementation of the corporate innovation system organization project is very important for the survival and development of enterprises.

The essence of innovation lies in the need for enterprises to overcome their own limitations and create more new systems and initiatives to meet the needs of the economic market in the only available conditions in order to remain at the forefront of the trends of the time, lay a solid foundation for the enterprise, and gain the trust of consumers [1].

As statistics show, over the past twenty years, the average life activity of the company has decreased rapidly. For example, sixty years ago, the average duration of operation of companies included in the S&P 500 was 32 years, in the 90s it decreased to 23 years, and now it is less than 19 years. This trend suggests that companies are facing increasing competition, breakthrough technologies and changing market dynamics.

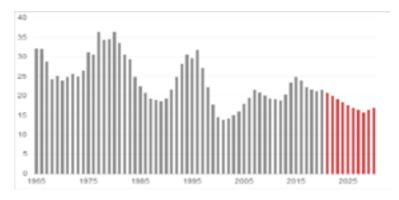


Figure 1 – Average company lifespan on S&P 500 index Note: compiled according to the source [2]

As can be seen from Figure 1, the average life expectancy of companies in the S&P 500 index has been decreasing over the years. This is due to the technological environment, which is rapidly changing almost all life processes. If earlier it took decades to increase turnover, expand staff numbers and develop the customer base, today it takes several years. For young tech companies, this situation is an opportunity, and for large corporations it is a threat. Therefore, corporate innovations capable of optimizing the functioning procedures of large companies are becoming an indispensable tool for maintaining their activities.

The term corporate innovation not only refers to the creativity or flexibility of a company, but is also understood as a set of practices and strategies that are followed to achieve new goals that go beyond the traditional framework of the company's actions. That is, it is not only a characteristic that is spontaneously applied in certain projects or in a way of thinking in a broad sense. Rather, it is a

whole set of deliberate actions aimed at implementing innovative and revolutionary projects that add long-term value to the company [3].

In this regard, in recent years there has been a significant surge in the development of innovative corporate systems in companies. Organizations are increasingly realizing the strategic importance of stimulating innovation to remain competitive. Key trends include the creation of specialized innovation teams, the introduction of flexible methodologies, and an emphasis on cross-functional collaboration. Companies invest in research and development (R&D), technology adoption, and a culture that encourages experimentation and risk-taking. Open innovation models, in which companies collaborate with external partners, startups and academia, are gaining momentum, promoting a wide range of ideas.

#### Materials and methods

Scientific publications of foreign and domestic scientists devoted to innovative development and corporate innovations served as the material for the study. Statistical data and relevant publications in the media were used to study innovation activity. In order to study the development of innovative activity of the country, the indicators of the rating of innovative activity of enterprises are considered. The analysis of specific cases of successful corporate innovations in Kazakhstan is carried out. The experience of corporations in Kazakhstan successfully implementing innovations has been studied, as well as an analysis of Kazakhstani programs and initiatives aimed at developing innovations in the corporate sector.

#### Results and discussion

Corporate innovation system is a system created within an organization to stimulate and manage innovation. It includes processes, structures, resources and culture aimed at creating new ideas, their development, implementation and commercialization [4].

A corporate innovation system is crucial for the success of companies in today's dynamic business environment. The corporate innovation system helps the company:

- to develop and implement new ideas and technologies, which allows it to differ from competitors and offer unique solutions to customers.
- to understand the needs of the market, develop appropriate solutions and implement them in practice. In this way, companies can better meet the needs of their customers by offering them new and improved products and services.
- to identify and implement new working methods, technologies and tools that help improve production processes, reduce costs and increase efficiency.

to remain flexible and respond to new challenges and opportunities, which allows it to maintain its competitiveness in the long term.

Also, companies with a well-developed corporate innovation system are usually more attractive to talented employees who seek to work in an innovative and creative environment. This helps the company attract the best specialists and keep them in its ranks.

There are several models of the corporate innovation system that companies can use depending on their specific goals, needs and context.

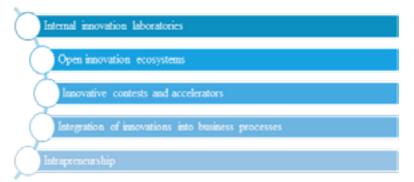


Figure 2 – Models of the corporate innovation system Note: compiled according to the source [5]

- 1 Internal innovation laboratories involve the creation of specialized departments or laboratories within the company that are engaged in research and development of new products, technologies and services. These laboratories can be organized as part of a corporate structure or as separate legal entities.
- 2 Open innovation ecosystems involve collaboration with external stakeholders such as universities, startups, investors and other companies to jointly develop and implement new ideas and technologies. In this model, the company acts as a platform for collaboration and the exchange of knowledge and resources. This model helps corporations accelerate innovation cycles, resulting in increased productivity.
- 3 Innovative contests and accelerators involve the organization of innovation competitions and acceleration programs for startups and innovators. The company offers resources, expertise and financing to develop promising ideas in exchange for a share of the result or access to innovation.
- 4 Integration of innovations into business processes involve the integration of innovation into all aspects of the business, from strategic planning to production processes and marketing. In this model, innovation is seen as an integral part of the work of every employee and every department of the company. Instead

of changing a product or service, this model rethinks how a company creates, delivers, and captures value.

5 Intrapreneurship encourages employees to act as entrepreneurs in the company, giving them the autonomy and resources to develop and test new ideas, fostering a culture of internal innovation [6].

Corporate innovation systems may vary depending on the country, cultural characteristics, economic conditions and institutional environment. However, there are several general trends in the development of corporate innovation systems in different countries.

For example, the United States is one of the leading countries in innovation and entrepreneurship. The model of the innovation ecosystem prevails here, which includes interaction between universities, research centers, corporations and startups. Corporations actively invest in research and development, cooperate with universities and acquire promising startups. There are several technology centers and innovation clusters in the USA, such as Silicon Valley, Boston/Cambridge and the Research Triangle, which attract talent, capital and innovation-oriented companies. These ecosystems provide fertile ground for collaboration and knowledge sharing.

There is also an active development of corporate innovation systems in Europe, although with some peculiarities. For example, in countries with strong social protection, such as Germany and Sweden, companies often cooperate with the government and trade unions in the framework of innovative programs. Also in Europe, the emphasis is on sustainable development and social responsibility [7].

Asian countries such as Japan, China and South Korea are also actively developing their corporate innovation systems. In these countries, the model of strong vertical industrial groups (conglomerates) often prevails, which invest in research and development, as well as develop their own innovative ecosystems.

In general, the development of corporate innovation systems in different countries depends on many factors, such as economic conditions, government policies, cultural characteristics and technological trends. However, there is a general trend towards the creation of open innovation ecosystems, including interaction between companies, universities, startups and government institutions.

In the context of globalization and changing market conditions, many Kazakhstani corporations are aware of the need for innovation to ensure competitiveness. This leads to the fact that many companies are beginning to actively invest in the development of innovations, introduce new technologies and business models.

The development of corporate innovations in Kazakhstan is at an active stage of development, and the government, the business community and the academic

Торайғыров университетінің Хабаршысы, ISSN 2710-3552 Экономикалық серия. № 2. 2024 sphere are working together to create a favorable innovation environment in the country.

Let's consider the state and dynamics of the indicator characterizing the level of innovative activity of organizations in Kazakhstan over the past few years.

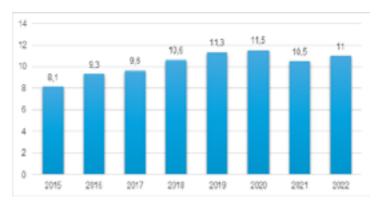


Figure 3 – The level of innovation activity in Kazakhstan in 2015-2022. Note: compiled according to the source [8]

As can be seen from Figure 3, the level of innovation activity of organizations has changed significantly over the past 8 years. By the end of 2022, the level of innovative activity of enterprises in the country showed an increase of 11%. For comparison, in 2021, the figure was 10.5%.

The main effect of startups for the national economy is the growth of innovative business. By developing and implementing technological solutions, startup projects not only stimulate business activity in the country, but also provide support to the real sector of the economy. In Kazakhstan the share of innovations in the GDP structure is only 1.8%. But, given that the startup market is still in its infancy, innovation activity in the country may increase significantly in the coming years. According to the StartupBlink research Center, which conducts annual assessments of the dynamics of the startup ecosystem in various countries and cities, in 2023 Kazakhstan confirmed its leadership in Central Asia.

The main model of corporate innovation in Kazakhstan is in—house development with partial involvement of external solution providers. The most popular open innovation tools are hackathons and startup contests.

Among the successful cases of using corporate innovation tools, Halyk Bank Corporation can be noted. The Bank has created special platforms where employees can treat their own ideas, receive human resources and a budget for their implementation. The project is given target metrics for up to six months, after which the team can count on additional funding to develop its idea or prototype [9].

And hackathons for developers are now being held on the basis of two universities, IITU and KBTU. For the Bank, it is not only a talent search tool or familiarization with tasks and technology stack, but also a source of ideas for real business implementation. With the winners of the last HalykFinTech hackathons, the bank launched services such as: HalykDos car consultant, eWallet mobile wallet, etc.

The Kazakh market is dominated by companies that understand the importance of introducing innovations, but do not have existing corporate innovation tools and are not ready to allocate significant financial or human resources for this.

In Kazakhstan, thanks to Astana Hub, MOST Ventures, and other market players, the startup ecosystem has also accelerated in recent years. There are various government programs and investment funds aimed at financing and supporting startups. For example, JSC «QazTech Ventures» offers many financing programs, both in the form of grants and direct investments, JSC «Kazyna Capital Management0187 is a private equity fund created to promote the sustainable development of the national economy, JSC «Centras Venture Fund» is one of the first venture funds in Kazakhstan, which was created jointly by the Centras Group and the National Innovation Fund of Kazakhstan.

It is important to note the role of MOST Ecosystem in the development of an ecosystem for startups and venture investors in Kazakhstan. MOST Ecosystem is a corporate media platform about the venture capital industry, technologies and startups, creative spaces and people changing the current reality. The work of the ecosystem unites the community of angel investors «UMAY», the venture fund «MOST Ventures», the business incubator «MOST Business Intelligence», the community of technology startups MOST Hub Almaty [10].

The venture fund «MOST Ventures» has its own acceleration program for startups from Central Asia. Following the results of previous programs, the following domestic startups received investments:

- online service for finding hourly workers in the retail and HoReCa sectors «easytap» received investments in the amount of \$ 300,000;
- a technological solution for trips inside the city on comfortable minibuses «UvU Shuttle07 received an investment of \$ 270,000;
  - innovative fintech company OneVision \$200,000.

As practice shows, in the modern world, startups have begun to outpace large corporations in terms of development speed. Therefore, in cooperation with them, corporations strengthen their competitive advantage in the market largely due to the innovative solutions being implemented. First, corporate innovations

bring economic benefits. Secondly, innovation provides a competitive advantage. Thirdly, innovation in modern realities is becoming a prerequisite for survival. This is due to the emergence of more technological companies, competing with which not only the business models of existing organizations are changing, but also sectors of the economy as a whole. From now on, it becomes more difficult to compete without creating innovative solutions [11].

#### Conclusion

In conclusion, the development of corporate innovation systems in Kazakhstan plays an important role in the modern economy of the country and determines its competitiveness on the world stage. The introduction of modern methods and approaches to innovation into corporate culture contributes to the creation of a favorable environment for the development of new technologies, improvement of products and services, as well as increasing the efficiency of business processes.

There is a positive trend in the development of corporate innovation systems in Kazakhstan, thanks to the active support from the government, the creation of innovation clusters, centers and incubators.

However, for the further successful development of corporate innovation systems in Kazakhstan, it is necessary to continue efforts to create a favorable innovation ecosystem, including the development of a venture investment system, improving the skills of personnel in the field of innovation and improving the legal framework in the field of intellectual property and innovation protection.

Also, the development of open innovation tools in the country is a key factor for creating a modern and competitive corporate innovation system. By establishing partnerships with external stakeholders, including startups, universities, research laboratories and other companies, corporations gain access to new ideas, technologies and resources that can stimulate innovation processes and contribute to business growth.

Only through the joint efforts of the state, business, science and education can favorable conditions be created for the development of an innovative economy in Kazakhstan, which in turn will ensure sustainable economic growth, improve the quality of life of the population and the successful integration of the country into the global economic community.

#### REFERENCES

1 **Kolosova, V. V., Sazonov, A. A.** Key principles of constructing and developing a corporate innovation system // Bulletin of the Moscow State Regional University (Economics). -2019. - No. 1. - P. 52-59.

- 2 Average company lifespan on Standard and Poor's 500 Index from 1965 to 2030, in years. [Electronic resource]. <a href="https://www.statista.com/statistics/1259275/average-company-lifespan/">https://www.statista.com/statistics/1259275/average-company-lifespan/</a>
- 3 Zhuang, J. The Ways of Corporate Innovation: A Review Analysis // Proceedings of the 2022 8th International Conference on Humanities and Social Science Research. 2022. P. 1471–1476.
- 4 **Granstrand, O., Holgersson, M.** Innovation ecosystems : A conceptual review and a new definition //Technovation. 2020. T. 90. C. 102098.
- 5 Costa, J., Matias, J. C. O. Open innovation 4.0 as an enhancer of sustainable innovation ecosystems //Sustainability. -2020. T. 12.  $-N_{2}$  19. -P. 8112.
- 6 Hernández-Perlines, F., Ariza-Montes, A., Blanco-González-Tejero, C. Intrapreneurship research: A comprehensive literature review // Journal of business research. 2022. T. 153. P. 428–444.
- 7 **Dworak, E.** Assessing the Effectiveness of Selected European Innovation Systems // Comparative Economic Research. Central and Eastern Europe 25 (2) 2022. P. 99–115.
- 8 Materials of Agency for Statistics of the Republic of Kazakhstan [Electronic resource]. <a href="https://stat.gov.kz/ru/industries/social-statistics/stat-edu-science-inno/dynamic-tables/">https://stat.gov.kz/ru/industries/social-statistics/stat-edu-science-inno/dynamic-tables/</a>
- 9 First analytical report of Kazakhstan's corporate innovation market «CorpUp Kazakhstan 2021». [Electronic resource]. <a href="https://aifc.kz/en/news/aifc-tech-hub-plug-and-play-and-generations-prepares-the-report-corpup-kazakhstan-2021">https://aifc.kz/en/news/aifc-tech-hub-plug-and-play-and-generations-prepares-the-report-corpup-kazakhstan-2021</a>
- 10 Kazakhstan Venture Capital Market Overview. Market research prepared by MOST in partnership with White Hill Capital and Tech Hub AIFC. [Electronic resource]. <a href="https://mostfund.vc/research-english">https://mostfund.vc/research-english</a>
- 11 **Pinto, H., Guerreiro, J.A.,** Fernández-Esquinas, M. Sources of knowledge in the firm: a review on influential, internal and contextual factors in innovation dynamics // SN Bus Econ 3, 57 2023.

Received 01.05.24 Received in revised form 01.05.24 Accepted for publication 15.05.24 \*Г. А. Архатова, Д. М. Мухияева

Л. Н. Гумилев атындағы Еуразия ұлттық университеті,

Қазақстан Республикасы, Астана қ.,

01.05.24 ж. баспаға түсті.

01.05.24 ж. түзетулерімен түсті.

15.05.24 ж. басып шығаруға қабылданды.

#### КОРПОРАТИВТІК ИННОВАЦИЯЛЫҚ ЖҮЙЕЛЕР ЖӘНЕ ОЛАРДЫҢ ҚАЗАҚСТАНДА ДАМУЫ

Қазіргі зерттеулерде корпоративтік инновациялық жүйе ең белсенді зерттелген салалардың бірі болып табылады. Мақаланың мақсаты-компанияның экономикалық тиімділігіне корпоративтік инновациялық жүйенің ықпалы мен маңыздылығын анықтау, Қазақстандағы корпоративтік инновациялық жүйелердің дамуын қарастыру. Мақалада корпоративтік инновациялық жүйелердің қазіргі бизнес ландшафтында маңыздылығын қарастырамыз. Бәсекеге қабілеттілікті ынталандыруды, таланттарды тартуды және сақтауды қоса алғанда, корпоративтік сектордағы инновациялық мәдениеттің маңыздылығын көрсететін негізгі аспектілер талқыланады. Ашық инновациялық экожүйелер, инновациялық конкурстар мен акселераторлар, ішкі кәсіпкерлік сияқты корпоративтік инновациялық жүйенің әртүрлі модельдері қарастырылады. Мақала корпоративтік инновациялардың қазіргі даму тенденцияларын қарастырады. Негізгі назар елдің экономикалық дамуындағы корпоративтік инновациялардың рөліне және Қазақстанның бизнес-ортасында инновациялық белсенділікті жақсартудың ықтимал жолдарын анықтауға аударылады. Корпоративтік инновациялық жүйелердің шетелдік тәжірибесі де қарастырылды. Отандық компаниялардағы инновациялық корпоративтік жүйелер зерттелді.

Кілтті сөздер: инновация, корпоративтік инновациялар, корпоративтік инновациялық жүйе, ашық инновация, инновациялық қызмет

\*Г. А. Архатова, Д. М. Мухияева Евразийский национальный университет имени Л. Н. Гумилева, Республика Казахстан, г. Астана Поступило в редакцию 01.05.24 Поступило с исправлениями 01.05.24 Принято в печать 15.05.24

#### КОРПОРАТИВНЫЕ ИННОВАЦИОННЫЕ СИСТЕМЫ И ИХ РАЗВИТИЕ В КАЗАХСТАНЕ

В современных исследованиях корпоративная инновационная система является одной из наиболее активно изучаемых отраслей. Цель статьи-определить влияние и значимость корпоративной инновационной системы на экономическую эффективность компании, рассмотреть развитие корпоративных инновационных систем в Казахстане. В статье изучим важность корпоративных инновационных систем в современном бизнес-ландшафте. Обсуждаются ключевые аспекты подчеркивающие важность инновационной культуры в корпоративном секторе, включая стимулирование конкурентоспособности, привлечение и удержание талантов. и рассмотрим различные модели корпоративной инновационной системы, такие как, открытые инновационные экосистемы, инновационные конкурсы и акселераторы, внутрипредпринимательство. Статья рассматривает современные тенденции развития корпоративных инновации. Основной акцент делается на роли корпоративных инноваций в экономическом развитии страны и выявлении возможных путей улучшения инновационной активности в бизнес-среде Казахстана. Также был рассмотрен зарубежный опыт корпоративных инновационных систем. Исследованы инновационные корпоративные системы в отечественных компаниях.

Ключевые слова: инновация, корпоративные инновации, корпоративная инновационная система, открытые инновации, инновационная деятельность.

Теруге 28.05.2024 ж. жіберілді. Басуға 28.06.2024 ж. қол қойылды. Электронды баспа 5,04 Мb RAM

Шартты баспа табағы 17,4 Таралымы 300 дана. Бағасы келісім бойынша. Компьютерде беттеген: А. К. Мыржикова Корректоры: А. Р. Омарова, М. М. Нугманова Тапсырыс № 4253

Сдано в набор 28.05.2024 г. Подписано в печать 28.06.2024 г. Электронное издание 5,04 Мb RAM Усл.п.л. 17,4. Тираж 300 экз. Цена договорная. Компьютерная верстка: А. К. Мыржикова Корректорлар: А. Р. Омарова, М. М. Нугманова Заказ № 4253

«Toraighyrov University» баспасынан басылып шығарылған Торайғыров университеті 140008, Павлодар қ., Ломов к., 64, 137 каб.

«Toraighyrov University» баспасы Торайғыров университеті 140008, Павлодар к., Ломов к., 64, 137 каб. 8 (7182) 67-36-69 e-mail: kereku@tou.edu.kz www.vestnik.tou.edu.kz www.vestnik-economic.tou.edu.kz