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**INNOVATIVE ECONOMY AND TECHNOLOGICAL
ENTREPRENEURSHIP**

Abstract. Entrepreneurial thinking is based on three qualities: initiative, creativity and responsibility. Concrete cases are needed and the main investment of investment funds should be made not in the oil and gas sector, but in the innovative sector of the economy. According to the authors, due to the specifics of the products and services produced, which were the result of highly specialized knowledge in various forms, the “production processes” in them are seriously different from the processes of production of material products and are built on the principles of a startup. This is a kind of algorithm for solving the problem. At the same time, the grade level suggests clear priorities. We have before us an almost complete program to solve the problem of technological entrepreneurship and the widespread introduction of innovations in the economy of Kazakhstan. To realize it means to truly show patriotism and wisdom at the state level, to take care not of the narrow local interests of a particular industry, but of the global development strategy of the country.

Keywords: innovation, economics, technology, entrepreneurship, projects, startups.

INTRODUCTION

The concept of "innovation" refers to the category of universal categories - extremely broad and structurally complex, with many approaches to the disclosure of its content. The fundamental foundations for understanding the essence of innovations were laid only at the end of the 19th century by the founder of the theory of innovations, the Austrian scientist Josef Schumpeter, who believed that the specific content of innovation is “change”, and the main function of innovation is the “change management function”. This is the most general and broad view of innovation. From this point of view, innovation can be understood as “introducing new elements (types, methods) into various types of human activity that increase the effectiveness of this activity”.

J. Schumpeter singled out the already “classic five typical changes” that characterize innovation:

1. Introduction of a new product with which the consumer is not yet familiar, or a new level of quality of existing products.

2. The introduction of new production methods, which are either based on scientific discoveries, or may represent a new way of commercial use of the product or raw materials. 3. The opening of a new market, which has not yet entered a certain industry of a certain country, regardless of whether this market existed before or not.

4. Capture of a new source of raw materials or semi-finished products, regardless of whether this source exists or has just been created.

5. Implementation of changes in the organization of a certain industry. In particular, taking a monopoly position (for example, through the creation of trusts) or its loss.

Thus, innovation is not only innovation products (new products and services), but also innovation processes (new technological processes and methods of organizing production, changing the structure of markets and creating new markets).

MAINPART

Innovation is the end result of innovation, which has been embodied in the form of:

- a) new or improved products or services introduced in the markets;
- b) new or improved technological processes;
- c) new ways of organizing production used in practice.

Innovation (novation) is a framed result of fundamental, applied research and development in any field of activity (new knowledge, method, invention). The introduction of innovation, that is, the achievement of the practical applicability of new knowledge in order to meet certain needs and market recognition, turns it into an innovation (innovation)

one. The main properties, which at the same time are a condition for the considered products (services, processes) to be recognized as innovations:

- 1. Scientific and technical novelty of introduced products, services or processes.
- 2. Industrial applicability: there is the possibility of translating this innovation into a specific product and further replication.
- 3. Commercial feasibility: the created product satisfies the needs of potential consumers and may ultimately bring profit to the manufacturer. That is, if a new product or technology is created, a patent is obtained, a new concept of labor organization or management, etc. is developed, but all these innovations do not find their application, then they are not innovations

2 The innovation process is the process of converting scientific knowledge into innovation (from an idea to the final product and its further practical use). Activities associated with such a transformation are called innovation activities. In other words, the innovation process is associated with the creation, development and dissemination of innovation. Linear model based on the hypothesis of “market demand pressure” (pull) Since the late 1950s, an alternative model of the innovation process has arisen, which is based on the hypothesis of “market demand pressure” (pull), according to which innovation arises as a result of marketing research and detecting market needs. Development and production adjust to market demand. Linear model based on the “technological push” hypothesis According to the linear model of innovation based on the “technological push” hypothesis (“from science to the market”), the developed fundamental idea is embodied in applied research, which serves as the basis for innovation and subsequent commercialization. This model establishes a direct linear relationship: the more basic research, the more applied developments, the more innovation and the more advanced technologies are introduced. Interactive model of the innovation process Compensating for the shortcomings of push and pull hypotheses, a new, more complex, so-called interactive model of the innovative process is increasingly used, which combines the elements of both hypotheses and allows the company to be more flexible and faster when launching new products.

The main differences between an interactive model and a linear one:

- 1. The interactive model implies that between the stages of the innovation process there are interactions (“feedback loops”), as well as the impact of the external environment. So, within the framework of this model, simultaneous design, marketing and production of a new product is allowed.
- 2. New ideas arise and are developed at all stages of the innovation process, that is, fundamental research is not considered as the only initiating force.
- 3. The research results are used in various forms at all stages of the innovation process, that is, the commercialization of technologies is also possible at all stages of the innovation process.
- 4. The interactive model considers the role of innovation process managers and consumers of innovative products. The innovation manager deals with various stages of the innovation process and, taking this into account, builds his managerial activities. The interactive model of the innovation process has many variations. For example, the Lean Startup approach proposed by Eric Rees, Steve Blanck, and Bob Dorf is closely related to this concept. The approach brings together two continuous parallel processes - Customer Development (in essence - the study of its potential customers and the market) and Product Development (work on the product itself) when launching new products. The company is not obliged to create all the elements of the innovation process itself. Increasingly, companies begin to work on the principle of “open innovation” 1, releasing new products not only through their own internal development, but in collaboration with other organizations. The mechanisms of work are strategic alliances with other companies, the creation of corporate venture capital funds, custom development and

much more. Companies with open innovations are usually characterized by a large number of external ideas, high mobility of employees, and active interaction with universities and startups.

Classifications of innovations according to the main technical parameters, distribution, continuity, coverage and time to market. According to the main technological parameters, two types of innovations are distinguished - product and process innovations. Product innovation involves obtaining a new product or service in order to meet a specific market need. Process innovation means new elements introduced into production, managerial, organizational, marketing and other processes. Product innovations have a market orientation and are dictated mainly by the consumer, while process innovations are determined mainly by internal factors and are dictated mainly by efficiency considerations.

In terms of distribution, innovations can be divided into new ones for a given sphere of business all over the world, new for a country or new for a given enterprise (group of enterprises).

By succession, innovations can be substitute, abrogative, repetitive, opening or retro introductions.

Replacement innovations are designed to perform operations in a different, more efficient way, including by displacing obsolete tools (for example, automation of part assembly control). Canceling innovations exclude the execution of any operation or even stages of the production process and do not replace it with a new operation or process (for example, canceling the reporting form, abolishing the metal edging on the package). Returnable (rotary) when, after some use of the novelty, its unsuitability or inefficiency is revealed, which makes it return to its predecessor. Openers are new products that create a new market and do not have similar predecessors (for example, radio). Retro-introduction - the use of already completed stages of the development of technology (for example, the use of wind power).

In terms of coverage, local innovation is the improvement of individual local elements, for example, in products, equipment, are a subspecies of systemic innovation.

Systemic innovations are innovations that stimulate rationalization activities, the disclosure of intellectual potential, which, in turn, contribute to the innovations themselves.

Strategic innovations are, as a rule, proactive and designed to ensure the competitiveness of a product or service of an enterprise, organization.

Leading innovations enter the market first, followed by innovation followers. They can be used interchangeably. Modern technological entrepreneurship has little in common with traditional forms. This is due to the specificity of innovative products and technologies. Innovation business is built around the latest technologies, progressive structures for the organization and management of enterprises. Experts predict an increase in investment in projects in the near future.

Entrepreneurship in the field of innovation separated in a separate form in the 1990s, when the first high-tech startups began to appear and work in Silicon Valley. For the first time, attention was paid to the path from the origin of the idea to the ultimate goal - commercialization. There are many definitions of the concept of entrepreneurship in the field of innovative technologies, but all of them correspond to the statement that this form of activity consists in the synthesis of related areas of business and innovation. Technological is significantly different from traditional forms of entrepreneurship.

Distinctive features: "Supply creates demand." Innovations are not related to the needs of society, on the contrary, the development of society and technology depends on innovations introduced through innovative projects. Technical innovations are offered to the consumer and get success when they are effective and useful. The effectiveness of innovation is manifested not in reducing producer costs, but in new qualities or properties of the product (technology, structure, etc.). The determining motivation for the synthesis of innovation is the creation of a new useful product, and not profit.

There is a basic model for the development of a startup in the innovation business, which contains 3 stages: Source of financing. Startup financing can come from a targeted grant, a business angel, a venture fund, an investment partnership, or an IPO. Innovative product. At the second stage, the author provides proof of the concept, working capacity and profitability of the project, sometimes the best indicators for investors are high sales in the early stages of implementation. Technological entrepreneur. This is the author of innovation, the creator of a new and sought-after technology. At the third stage, the author of the innovation, who has proved the effectiveness of the product, is ready to begin large-scale implementation (operation) and development.

Distribution According to statistical studies (global innovation index), European countries are leaders in the field of technological entrepreneurship, among which stand out: Switzerland (1st place); Sweden

(2nd place); United Kingdom (3rd place). Scientific and technological innovations in these states are developing most actively. Progressive methods for creating and implementing innovations accelerate the process from creating a startup to monetization.

For the successful functioning of such innovative cooperatives in the economy, time and three conditions must be met: • the possibility of transferring scientific achievements to business; • availability of venture financing mechanisms; • developed technology market. However, Kazakhstan has big problems with this.

Consider our problem using some of these methods. The method of "magic" questions is a simple but very effective method that is used to consider problems with various options for ways out of a problem situation. The method is also called the "5W and 1H Question" by the initial letters of the English words: Who? What? Where? When? Why? How? "Magic" questions starting with interrogative pronouns Who? What? Where? When? Why? How? - used to collect information and develop ideas for solving the problem.

What really happens and affects the development of the problem? • Lack of competition in the country (political and economic). • The monopoly of large corporations that have little interest in new products and technologies. • A commodity economy, which has a guaranteed sales market, but incomes are extremely low for the whole country.

Lack of an effective development strategy of the Republic of Kazakhstan aimed at developing production, science, the education system, widespread introduction of innovative developments, etc. • Lack of consumer orientation for most developers. • Lack of understanding and the need for activities such as technology entrepreneurship. • Lack of strong government support. Corruption, eating up a large share of the funds allocated for innovation. • Lack of entrepreneurial culture. • Inaccessibility (price) of the possibility of obtaining a business education abroad. • Lack of quality targeted programs aimed at the development of technological entrepreneurship.

• Big risks that make investors restrain their emotions and are very reluctant to give finances for introducing innovations. • Notadapted developers to market requirements. Inability to "pack" an innovative product for the consumer. • Weak technology entrepreneurship training programs in Russia. • Weak training of young specialists after graduation. • The culture of conducting business games and developing entrepreneurial skills, etc., is not developed.

CONCLUSION

This is a kind of algorithm for solving the problem. At the same time, the grade level suggests clear priorities. We have before us an almost complete program to solve the problem of technological entrepreneurship and the widespread introduction of innovations in the Russian economy. To realize it means to truly show patriotism and wisdom at the state level, to take care not of the narrow local interests of a particular industry, but of a global development strategy.

The entrepreneur uses his abilities to ensure such a combination and combination of factors of production, which in the best way will lead to the achievement of the goal - to obtain high income. The third function of entrepreneurship is creative, associated with innovation. Its importance is especially growing in the context of modern scientific and technological progress. Entrepreneurship, business - the most important attribute of a market economy, permeating all its institutions.

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ИННОВАЦИОННАЯ ЭКОНОМИКА ЖӘНЕ ТЕХНОЛОГИЧЕСКАЯ ПРЕДПРИНИМАТЕЛЬСТВО

Аннотация. Кәсіпкерлік ойлау үш қасиетке негізделген: бастама, шығармашылық және жауапкершілік. Нақты жағдайлар қажет және инвестициялық қорлардың негізгі инвестициялары мұнай-газ саласында емес, экономиканың инновациялық секторында жасалуы керек. Авторлардың пікірінше, әртүрлі формадағы жоғары

мамандандырылған білімнің нәтижесі болған өндірілген өнімдер мен қызметтердің ерекшелігіне байланысты, ондағы «өндіріс процестері» материалдық өнімдерді өндіру процестерінен айтарлықтай ерекшеленеді және іске қосу қағидаттарына негізделген. Бұл мәселені шешудің алгоритмінің бір түрі. Сонымен қатар, баға деңгейі нақты басымдықтарды ұсынады. Біздің алдымызда технологиялық кәсіпкерлік пен Қазақстан экономикасына инновацияларды кеңінен енгізу мәселесін шешудің толық бағдарламасы бар. Мұны түсіну мемлекеттік деңгейде шынайы патриотизм мен даналықты көрсетуді, белгілі бір саланың тар жергілікті мүдделеріне емес, елдің жаһандық даму стратегиясына назар аударуды білдіреді..

Түйін сөздер: инновациялар, экономика, технология, кәсіпкерлік, жобалар, стартаптар

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ИННОВАЦИОННАЯ ЭКОНОМИКА И ТЕХНОЛОГИЧЕСКОЕ ПРЕДПРИНИМАТЕЛЬСТВО

Аннотация. В основе предпринимательского мышления лежат три качества: инициативность, креативность и ответственность. Нужны конкретные дела и основное вложение инвестиционных средств делать не в нефтегазовый сектор, а в инновационный сектор экономики. По мнению, авторов, из-за специфики производимых продуктов и услуг, которые стали результатом высокоспециализированных знаний в различной форме, «производственные процессы» в них серьезно отличаются от процессов производства материальных продуктов и строятся по принципам стартапа. Это своеобразный алгоритм решения проблемы. В то же время уровень оценок подкашивает явные приоритеты. Перед нами практически готовая программа решения проблемы технологического предпринимательства и широкого внедрения инноваций в экономику Казахстана. Реализовать ее — значит по-настоящему проявить патриотизм и мудрость на государственном уровне, заботиться не об узких локальных интересах той или иной отрасли, а о глобальной стратегии развития страны.

Ключевые слова: инновации, экономика, технологии, предпринимательство, проекты, стартапы.

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