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MEASURES OF STATE SUPPORT FOR INNOVATIVE ENTREPRENEURSHIP IN THE REPUBLIC OF KAZAKHSTAN

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Abstract. *The relevance of the research is due to the globalization and modernization of all spheres of public life. In this regard, there was a need to consider and analyze the level of public investments that are directed to support innovative entrepreneurship in Kazakhstan. The purpose of the study is to review and analyze measures of state support for innovative entrepreneurship in the Republic of Kazakhstan. The methodological basis of the presented research is the unification of various general scientific methods of cognition. In the presented study, methods of analysis and synthesis of information were used, a comparative method was used, and the method of induction and deduction was also used. At the final stage of the study, such a method of cognition as a systematic analysis of scientific literature related to the subject of the study was used. In the course of the study, the experience was considered of other countries (the United States of America, the European Union) and*

models of support for innovative entrepreneurship. In the process of writing, methodological principles were outlined for the modernization and growth of innovative entrepreneurship in the Republic of Kazakhstan. A closed innovation management system was considered. The main functions of the state to support innovative entrepreneurship were considered

Keywords: *market economy, business, investment, entrepreneurial thinking, manufacturer*

Introduction

The research on Innovative Entrepreneurship in Kazakhstan is novel in that it delves into the unique environment of this former Soviet republic and its challenges for entrepreneurs. It examines how the regulatory, financial, and cultural environment affect the success of innovative entrepreneurs operating in this economy. The research further highlights how public-private partnerships facilitate knowledge exchange and bridge the gap between public and private capital sources to empower entrepreneurs. This current research is essential because it brings a new perspective to the field of entrepreneurial development, particularly in regard to countries with less established market economies such as Kazakhstan. This study is of utmost importance and urgency, as it can contribute significantly to the development of entrepreneurial initiatives in this region. It offers an analytically comprehensive overview of the current situation, providing both direct and non-conventional insights into different conditions for creative entrepreneurs in this country, as well as their connections with legal mechanisms and State functions. Hence, it makes a valuable contribution from a scientific perspective, offering detailed reflections and suggestions which could be further developed by other authors who wish to take a deeper dive into this field.

As the experience of the Republic of Kazakhstan, as well as the experience of other countries, such as the countries of the European Union (EU), the United States of America (USA), and some others demonstrates, one of the main factors in the development of a market economy is a purposeful dynamic increase in the share of the non-state sector. Identification of possible potential trends of the ongoing changes is one of the most important tasks in the formation of a modern market economy capable of integrating into world economic relations. However, some difficulties arise (Akaev et al. 2016, p. 613-626). First, the market economy mustn't be designated by the state and development of the system itself, but by the global transformation of the existing system into a new one. This requires the creation of a conceptual framework for the transition to a real competitive economy (Akinci 2017, p. 1-24). At the same time, in practice, there has been a significant exaggeration of the real value of the market mechanism with a serious reduction in the role of the state. This entailed not only underestimating institutional changes, but also ignoring the social mentality. These shortcomings, accompanied by specific mistakes in the implementation of certain measures, certainly impaired the pace of development of the Kazakh economy (Chen & Sonn 2017; Ivanov et al. 2019, p. 169-180).

The market economy of Kazakhstan at the early stages of its development and formation was formed under particularly strong manifestations of the consequences of the old economic system. This made it difficult to identify trends and patterns throughout the transformation process: in general, as well as in certain key areas. The main factor in the innovative development of the country is the consideration and analysis of the most significant strategic directions, as well as the designation of basic trends in the development of a business that specializes and focuses on innovation. In economically developed countries, it is a small business. Small business also performs the function of finding and implementing innovations, which are a factor in obtaining competitive advantages for enterprises, districts, and organizations (Naumenkova et al. 2022, p. 379-395; Proskurnina et al. 2021).

Therefore, a thorough analysis of all trends, as well as scientifically sound recommendations, is required to create a business structure that would be optimal, modern, and also effective from the point of view of functioning. Also, it should be noted that it is necessary to study the external business environment. Kazakhstan's economy of the XXI century is characterized by several important trends. This is not only obvious successful progress in the market but also an increase in the speed of private property development resulting in long-term macroeconomic imbalances. Although the identified trends are general, based on them it is possible to formulate some regularities of the transformed processes. This requires a deep understanding of the exclusivity of the situation, the distinctive features of the Kazakh economy, and its special position. In the context of current challenges, as well as the need to implement a sustainable economic development strategy, identification of these trends requires the development of a long-term policy that will be aimed at increasing the speed of development of economic and social modernization of the society of the Republic of Kazakhstan (Ukubassova et al., 2020a, p. 120-126).

Materials and Methods

The methodological basis of this research is a combination of various general scientific methods of cognition. The research used methods of analysis and synthesis of information, the comparative method, as well as the method of induction and deduction. At the final stage of the study, the method of statistical analysis of scientific literature related to the research topic was used. In the course of the study, the method of information synthesis was used. The method of information analysis was also used in the research process. The analysis involves the process of dividing a complex topic or object into smaller parts to gain a broader understanding of the topic or object presented. Methods of information analysis and synthesis were used to summarize information about the experience of investment activity development in other countries.

Comparison can be characterized as a logical technique necessary in any cognitive activity: at different stages and different levels, regardless of the subject. Comparison can be used as a special research method only if the comparison procedure requires special training and special organization for its effective implementation. Such a need usually

arises when comparing complex objects and phenomena that are characterized by a large set of very different characteristics. The experience of comparative law shows that it is possible to solve not only scientific and educational but also important applied tasks based on the comparative method. Inductive and deductive methods were used in the process of analyzing scientific literature, as well as in the process of studying the “Innovation Management Structures”. At the final stage, a systematic analysis of the scientific literature was carried out. The analysis took into account much scientific research of European, Kazakh scientists, as well as scientists from Asian countries.

Results and Discussion

When developing a strategy for sustainable economic development on the territory of the Republic of Kazakhstan, the unique experience of implementing similar programs that have already been implemented abroad was fairly applied, demonstrating positive results. Nevertheless, the situation of the Republic of Kazakhstan is unique, and therefore the complexity of the problems, as well as their interrelation, require a not entirely formal interpretation of the historical experience that has been accumulated in other states. A constructive understanding of this experience can be made only based on an understanding of internal mechanisms, as well as common patterns of effective socio-economic transformations. First, it is necessary to define the principles of the organization of transformable processes that underlie accelerated development (Ivanov et al. 2021, p. 2747-2759).

The kind of reforms is the key aspect based on the understanding of the nature of small enterprises and their role in the development of a market economy that will make possible the process of socio-economic transformation; prevent the destabilization of society and the economy; ensure the creation of conditions for the sustainable development of the entire socio-economic system. The development of the principles of successful reform should also be based on systemic ideas about the modernization and growth of society and the economy of Kazakhstan, the individual way of social organization, Kazakh culture, and Kazakh traditions. Such principles include political stability in the state, economic freedom for small innovative businesses, a positive atmosphere in the Kazakh society, the constant increase in the importance of innovative business for the state. Kazakhstan's experience and the experience of other countries (EU, USA, Asian countries) show that state assistance to innovative business is an inseparable part of the market economy (Cobb 2016).

Because business sectors do not coincide in market conditions due to real economic laws and the development of innovative business for the state has not only an economic but also a high social effect, state regulation of innovative business usually occurs in the form of state support. The implementation of the state policy is based on the introduction and use of special legislation and the introduction of state support programs for the development of innovative business. It is important to clarify that everything is aimed at improving the efficiency of innovative business. Government policy to support innovative business in developed economies allows them to create favorable conditions that are aimed

at maintaining a stable economic policy of the state, maintaining market infrastructure, an effective system for the protection of intellectual property, as well as speeding up and easier implementation of administrative procedures (Howarth & Kennedy 2016, p. 231; Kostruba 2018, p. 1689-1695)

A market mechanism that is properly configured and functioning correctly makes it possible to set priorities, and leaves the state only with the task of introducing the necessary adjustments within the framework of the policy of support and development of innovative enterprises. Thus, such a policy can be placed in the basic context of regulation. It is known that state support for innovative entrepreneurship mainly involves providing enterprises with tax benefits. Despite this, in many countries they traditionally use additional incentives to attract private capital flows, the so-called additional concessions, which allow companies to save up to one hundred percent of research costs. and changes in the tax base, and in some countries, such as Australia, Austria, Denmark, there may be more. If a company spends money on research and development and buys the necessary equipment, but currently does not have enough profit to fully use the existing tax benefits, the legislation of many countries provides the possibility of transferring this right to another period in the future (Jauch & Watzka 2016, p. 291-299; Kostruba et al. 2020, p. 189-207).

The experience gained by economically developed countries of the world demonstrates that for the development of small innovative enterprises in certain localities, it is important not to provide various types of tax incentives, but also to develop innovative infrastructure, which is an integral part of the innovative potential of the region. Focusing on achieving this goal, small businesses should work with companies that provide information, credit finance, advertising, patent, and other services, thereby supporting the creation of a knowledge-based economy and an effective innovation mechanism. Innovation infrastructure is a set of technical, as well as production systems, enterprises, companies that are interconnected, complement each other for productive innovation (Howarth & Kennedy 2016, p. 232-233).

According to the opinions of some scientists and practitioners, it is the innovative infrastructure in modern conditions that determines the speed of development of the region's economy and the improvement of the welfare of the population. For each specific region, not only an innovative infrastructure with a traditional set of components should be created, but also the constructiveness of this infrastructure should be provided, which will guide it to the final results. It is also important to establish information flows, including feedback flows (ensuring continuous analysis of intermediate and final results) (Cobb 2016; Jauch and Watzka 2016, p. 300-308). Figure 1 shows the main functions of the state to support innovative entrepreneurship.

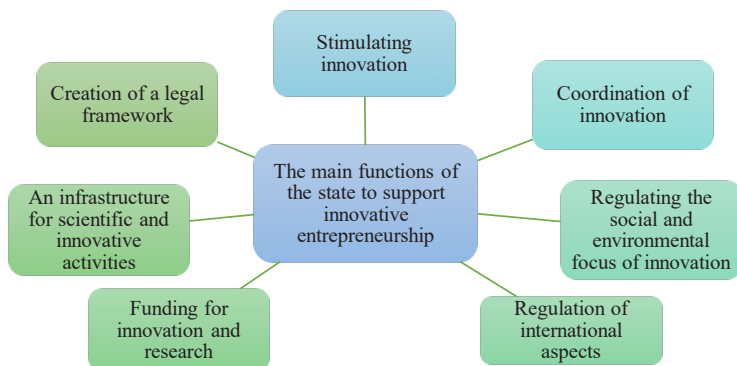


Figure 1. The main functions of the state to support innovative entrepreneurship

Many developed countries with a wide range of methods and forms for stimulating innovation have something in common on the part of the state. This circumstance manifests itself in the use of the same economic instruments of the state's influence on innovation activities that correspond to the chosen course in the economy. The characteristic features of innovation policy are orientation to the development of innovative ideas, initiating initial demand for results achieved as a result of activities in the innovation field, stimulating the attractiveness of credit and financial resources, attracting information resources in the innovation environment, as well as maintaining a certain political and economic environment for innovation (Howarth & Kennedy 2016, p. 233-236; Trusova et al. 2021, p. 169-182). A common feature of innovation policy is also taking into account the specifics of innovation activity. It is important to take into account such factors as cyclicity, fragmentation, probabilistic nature, high degree of risk, and some others. The State Program of Industrial and Innovative Development of the Republic of Kazakhstan for 2015-2019 determines that the state plays a decisive role in ensuring the innovative development of the republic (Ukubassova et al., 2020b, p. 103-106).

The State also determines measures aimed at creating an effective innovation system. Innovation activity or innovation process can be characterized as a process of transformation of scientific knowledge into innovation, represented by a gradual chain of events, as a result of which innovation is transformed into a specific product, technology, or service and can be practically used (Jauch & Watzka 2016, p. 309-314; Trusova et al. 2020, p. 141-156). In the process of innovation activity, economic relations are realized between the formative innovations, owners of capital, and consumers of these innovations. These relations are mediated by the movement of information and capital. The process of innovation activity does not end with the implementation, the first launch of a new product, or the introduction of new technologies into the design capacity. This process does not stop even after implementation, because with the expansion of the implementation area, this innovation tends to improve, be more effective and acquire previously unknown qualities. This opens up new areas of innovation, new markets, and new products for consumers who perceive these products as an innovation (Cobb 2016).

Many researchers have considered the problems of innovation activity both in Kazakhstan and in other countries. One of the articles describes the nature and impact of the recent major educational policy aimed at transforming higher education in Kazakhstan, the State Program of Industrial and Innovative Development for 2015-2019. This research was aimed at understanding and describing the role of internationalization of higher education, in particular, its role in the development of university research. The Industrial and Innovative Development Program of Kazakhstan promotes cooperation between universities and industry, as well as the international partnership of universities to enhance the role of the university in the economic development of the country following the imperatives and opportunities of the knowledge-based economy. The role of internationalization, in particular, the involvement of international partner organizations in this policy, contributes to quality assurance and informed decision-making. The conclusions were based on content analysis of policy texts and interviews with university representatives (Jumakulov et al. 2018, p. 234-247).

Mineral-rich countries are forced to diversify their sources of growth and employment in the face of uncertain demand and price fluctuations for their products. Moreover, since few jobs are being created in the mining sector and connections are being created with other subsectors, only by building capacity in other areas of the economy, countries such as Kazakhstan can benefit from a growing and more educated workforce. Given the small size of the domestic market, its remoteness, and relatively high wages, Kazakhstan cannot compete with Asian countries in the production of standardized products. Consequently, Kazakhstan should acquire and expand technological capabilities in niche production, agro-industry, and some high-value-added services. And it needs to use current regional investments in transport and logistics to take advantage of opportunities in Central Asia and Europe. Kazakhstan's research and development (R&D) system is at an early stage of development; however, it has the resources to expand the research infrastructure and rapidly improve the quality of human capital, as China and other East Asian countries have done. The experience of other small and remote economies discussed in the article shows that with good policies, perseverance, and some luck, resource-rich countries can create an ecosystem of globally competitive firms that, in combination with the mining sector, can maintain the growth rates that Kazakhstan is aiming for (Yusuf 2015, p. 257-286).

Small enterprises cannot organize significant cash reserves, and therefore modernization becomes a project of long-term financial and economic planning. The success of the project can affect both individual market segments and the market as a whole. The purpose of the article is to highlight the methodology of planning, to show its stages, and to form an analysis of possible deviations from the set goals, as well as to determine ways to adjust the announced changes. Simulation technology was used as a research method to solve resource allocation problems. As a result of the research, an analysis model was developed and a verification mechanism was provided. The practical significance of the study is determined by the possibility of forming a qualitative component that will create a tool for the development of small and medium-sized businesses in the regions. This corresponds to the goals of the financial and economic development of the state and programs aimed at stimulating entrepreneurial activity (Ukubassova et al. 2020a, p. 127-132; Naumenkova 2015, p. 363-371).

The relevance of the following study is determined by the fact that energy-saving enterprises are closely related to the introduction of technologies that can fully provide a technological breakthrough for any enterprise. The novelty of the study was the fact that the innovative development of the enterprise is based primarily on the formation of projects that can carry out technological changes in production or increase its energy efficiency. In the article, the energy efficiency of production is considered as a discrete quantity that can create additional economic benefits without forming a separate technological transition. The article presents a mathematical model of the development of enterprise innovations and their stratification, based on an equilibrium approach and forecasting profit growth. Practical application of the results obtained is possible primarily in the implementation of the program of compliance of modern enterprises with international energy efficiency standards. The article examines the main vectors of innovation activity in the transition period of economic development and lays the foundations for the formation of a harmoniously developed industry (Ukubassova et al., 2020b, p. 107-119).

The article of S.A. Low and A.M. Isserman (2015, p. 171-201) focuses on an important technical aspect of the study of regional entrepreneurship. Innovation is one of the most important components of entrepreneurship, however, the frequent use of entrepreneurship indicators that do not take innovation into account prompted the proposal and development of an innovative entrepreneurship indicator. This is useful for studying regions, counties, states, and urban agglomerations. The new combination of startups in innovative industries and self-employment in innovative industries provides entrepreneurship indicators that include three widely recognized functions of entrepreneurship, including innovation. Sharp contrasts were found between their indicators of innovative entrepreneurship and widely used indicators of entrepreneurship. The analysis shows that innovative entrepreneurship is a useful empirical concept and that ignoring innovation in entrepreneurship has probably led to misleading research results and policy implications regarding regional entrepreneurship, its determinants, and its role in regional economic growth.

Due to the constant deepening of innovation and entrepreneurship education, innovation and entrepreneurship education faces the challenge of modernization. Creating a scene of innovation and entrepreneurship learning is the key to solving the “teaching and learning” in the renewal process. Based on the mechanism of translation of the theory of actors and networks, the considered article explores three ways: “structural scene, classroom learning scene, and learning mode” to build a learning scene of innovation and entrepreneurship, which represents a new path for the study of innovation and the reform of innovation and entrepreneurship education through the integration of digital intelligence technology (Sabirova et al. 2018, p. 10141-10144).

The training effectiveness of the existing innovative methods of training thinking is low. To improve the ability to optimize learning and search for innovative entrepreneurial thinking, as well as to increase the effectiveness of the development of innovative entrepreneurial thinking, K. Wang, S.-C. Song, X.-Q. Wang, H.-J. Xu (2020) proposed a method to optimize and control the path of development of innovative entrepreneurial thinking based on the theory of cognitive learning. The method of particle swarm

optimization was used to build a virtual space of the learning trajectory of innovative entrepreneurial thinking, as well as to model and build a model of an optimized learning environment for the development of innovative entrepreneurial thinking. By abstracting the spatial coordinate of the cultivation of innovative entrepreneurial thinking, a population of particle swarm filters entered the virtual world, a cartographic grid model was obtained for tracking the path of development of innovative entrepreneurial thinking. By the evolution of particle swarm filters to create a new way of cultivating innovative entrepreneurial thinking in combination with global stability control and a particle swarm cognitive learning algorithm to implement adaptive optimization and global optimization management of the development path of innovative entrepreneurial thinking. The simulation results show that the effectiveness of path optimization training is higher, and the cost of path evolution is lower when using this method, which increases the effectiveness of the development of innovative entrepreneurial thinking.

R. Ronstadt, J. Shuman, K. Vesper (2020, p. 75-82) describes in detail how the entrepreneurship program was created at Babson College in the 1970s. They tell about the early history of the Babson program, because the school was one of the first, if not the first, to take on huge institutional commitments that led to entrepreneurship becoming a core part of its academic programs. At that time, other schools had one or two entrepreneurship courses, but Babson's commitments included the creation of a bachelor's degree specialization, an annual research conference, an Academy of Outstanding Entrepreneurs, an entrepreneurship department, and numerous information programs. These efforts influenced other universities to expand their entrepreneurship offerings to such an extent that such a new academic discipline as "Entrepreneurship Studies" was born. Like most innovations, the creation of Babson's entrepreneurship program was not a neat affair but rather coordinated with the stormy ideas put forward by J. Schumpeter and K. Christenson. Understanding Babson's early history with entrepreneurship can help others implement or promote their own academic innovations.

J. Wang and Y. Tan (2019, p. 510-531) study a campaign of mass innovation/mass entrepreneurship in China with special attention to the community of manufacturers-entrepreneurs in the context of a new technopolitical structure of society and their social territories. This raises the question of the mass creation of entrepreneurs-producers with the help of what they call a new educational and incubation assembly. As a new educational and incubation machine gathers a new community of participants, forms a chain of production-communication-consumption to introduce a new economy and reterritorialize the technopolitical structure of society. The study highlights two differences in the social factory. Firstly, by creating a fragmented production model and an individualized society, mass entrepreneurship focuses on social networks. The exploitation of social relations in production is brought to the fore. Secondly, mass participation is not only formed by a new mentality, but also forms the basis of the formation of a new mentality. Such a mass is a collection of subjects from the government, cooperatives, startups and individuals. In addition, their agencies differ from those with a more materialized form of power, such as politics, to the mundane, thoughtless actions of individuals. This process entails a reconfiguration of the political apparatus and biopolitical power.

Conclusions

1. A market mechanism that is properly configured and functioning correctly makes it possible to set priorities, and leaves the state only with the task of introducing the necessary adjustments within the framework of the policy of support and development of innovative enterprises. Thus, such a policy can be used on the territory of the Republic of Kazakhstan as a basic regulatory context.
2. The experience gained by economically developed countries of the world demonstrates that for the development of small innovative enterprises in certain localities, it is important not to provide various types of tax incentives, but also to develop innovative infrastructure, which is an integral part of the innovative potential of the region. According to the opinions of some scientists and practitioners, it is the innovative infrastructure in modern conditions that determines the speed of development of the region's economy and the improvement of the welfare of the population.
3. In the course of the study, it was determined that many developed countries with a wide range of methods and forms for stimulating innovation have something in common on the part of the state. This circumstance manifests itself in the use of the same economic instruments of the state's influence on innovation activities that correspond to the chosen course in the economy.

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