

## Creativity of Venture Businesses in Kazakhstan - A Key Factor in the Development of Innovation

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**Abstract:** An analysis of trends of developments in science and technology in the Republic of Kazakhstan and abroad shows that development of an innovative economy is not possible without the effective functioning of the “venture capital business.” Most venture capital companies utilize a legal form of partnership (limited liability company), composed of 3-4 core members and a number associated participants. Their goal, it is known, is the receipt of funds from contributors and organization of risky enterprises.

**Key words:** National innovation system • Kazakhstan • Open innovation

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### INTRODUCTION

The typical type of venture capital business is the kind of business that focuses on the practical use of engineering and technological innovations, the results of scientific achievements that have not yet been tested in practice, so that's why it is a “risky” business. The main risks are:

- Originality risk, is when the original technology may not yet be needed by production and the market;
- Risk of technological inadequacy, is when the new products may at this stage be technologically unsuitable in production;
- Risk of legal inadequacy, may, on the one hand, lead to non-compliance with obligations by investors in technology and with respect to the investors, on the other hand - to the desire to protect their innovation patent, which is not always justified;
- Inadequate financial risk, is the risk of possible discrepancies in the value of the innovative project and the financial funds necessary for its implementation;
- Risk of project unmanageability, is the risk of lack of institutional development of the project by a qualified, cohesive management team;

- Risk of unmanageability of the company, is encountered in frequent divergence of interests of the venture company and the interests of its leaders. [1].

Definition of a mechanism to ensure the effective functioning of the venture business requires the identification of implementation obstacles for Kazakhstan's venture businesses, competitive advantages and the choice of appropriate tools for development.

**Main Part:** Currently, in the Kazakh economy there are some fundamental barriers which prevent the substantial increase of innovation activity as the main instrument of realization of competitive advantages of venture businesses (Table 1).

A SWOT-analysis shows that the main obstacle to the development of venture businesses in the Republic of Kazakhstan is its weak creative management.

According to Webster's dictionary, "creativity is the ability to create meaningful new forms." In a broader sense, creativity is the process of identifying hidden opportunities and the creative use of the potential in a particular area [2].

Creative management means the management of people in organizations aimed at maximizing disclosure and use of their creative abilities at pre-design and project

Table 1: SWOT-analysis of venture businesses Republic of Kazakhstan

Advantages:	Disadvantages:
1. Rich natural resources	1. High level of risk in low innovative risk management, marketing, shortage of professionally trained personnel
2. Technological advance in several industries	2. No effective system of transfers of technology and new knowledge
3. Developed network of universities, academic institutions and other research institutions	3. Underdevelopment of small business venture
4. Active government policies and support innovation	4. Low innovation susceptibility of domestic producers
5. Job key elements of innovation infrastructure	5. Low competitiveness of domestic scientific research and purchase of foreign outdated technologies and equipment
6. Strengthening the business elite who have no access to raw materials	6. Limited financial and material resources
Features:	Threats:
1. Development of the manufacturing sector with science	1. "Braking " quality of innovative development of the economy of Kazakhstan
2. Creating a system of knowledge generation, emerging technologies and innovative solutions	2. Inefficient organization of the innovation process and to promote innovative product on the market
3. Formation of "innovation zones" around universities	3. One-sided activity of Kazakhstan and foreign venture capital funds in the Republic of Kazakhstan
4. Stimulating business activity of local entrepreneurs and foreign investors in investment activity	4. " Leakage " of new technologies, ideas and turning abroad Kazakhstan developers intelligent donors for foreign countries
5. Opportunity to "nurture" promising innovative start-up companies	5. Dominance in manufacturing and exporting low degree of redistribution.
6. Increased interest and flow of financial and managerial resources in high-tech industries	6. Worsening problems of competitiveness of Kazakhstan industries in a globalizing

stages of the innovation cycle to create new and competitive ideas on the level of inventions in various fields of human activity [3].

Creativity in developed countries is a regular practice and the main source of competitive advantage. Creativity can have the following basic forms: scientific (opening); technical (invention); economic (business); artistic (art), social (relationships with people), political (state governance).

The basis of creativity is creative thinking, i.e. the ability through synthesis (combination) of different elements to create significant new knowledge having high socio-economic impact [4].

Important features of creative work are that the work requires intrinsic motivation of a person, knowledge and experience. Moreover, in modern conditions, innovative ideas have often ceased to be individual and became the result of collective work groups of professionals (marketers, designers, engineers, technologists, economists, sales professionals, subcontractors, etc.).

Based on the "success formula" and the motivational model of "risk selection" developed by J. Atkinson in 1964 [5], as well as on the results of the analysis of the current state of the venture industry in Kazakhstan, we propose the following formula of creativity of a venture business:

$$T_k = \sum (K \times I \times N \times P_k \times V_k) \quad (1)$$

where:

- $T_k$  = Trend of creativity of venture business;
- $K$  = Competence of venture business;
- $I$  = Ingenuity of venture business;
- $M$  = Motivation of venture business;
- $P_k$  = Probability of creativity;
- $V_k$  = Expected value of creativity.

The formula shows the following dependency: the higher the competence, ingenuity and motivation of venture businesses, the higher level of creativity.

According to this hypothesis, the greatest creativity of a venture business corresponds to the implementation of more advanced technologies that require greater expertise and ingenuity (which means a high probability of creativity). And vice versa, the newer technology is trying to develop and implement an entrepreneur, the higher its creativity. However, as noted above, group creativity is important, by an entire team. The main prerequisites for successful creative management are harmonization of the relationship between the participants in the innovation process, which consists of creating and maintaining a favorable climate for innovation in the organization. Today, new ideas stopped being "illumination of truth." Innovative activity is a difficult and hard work that needs to be professionally managed. Specific techniques of creative thinking and creative management are being used. A lot of attention is paid to

the development of special incentive programs aimed at stimulating innovation of all staff in order to increase its degree of creativity [5].

Thus, the hypothesis put forward is consistent with existing domestic and foreign practice. If one puts this abstract formula in a social context, it will reveal the typical features of attitude to innovation in society. Depending on specific activities pursued by the Government, the promotion of entrepreneurship and innovation by motivating creative people with high need for achievement of work in this sphere may be possible.

Almost all Western and Japanese companies in practice use creative management techniques, which has now become one of the major factors in the rapid development of innovative countries, regions, industries and enterprises. In Kazakhstan, it is necessary to train professionals, students and children in high school and preschool in methods of creative management and creative thinking. As noted by R. Florida, a prerequisite condition to creativity in society is to ensure the social conditions for its development. Social and economic institutions promote or inhibit expression of creativity in various fields [2].

So far, according to experts, there is observed in Kazakhstan a deep technological and organizational backwardness, which results in a low susceptibility to innovation and loss of a substantial part of the internal market under uncertain prospects in foreign markets. This situation generates excessive investment risks in manufacturing and inhibits innovation.

The Government of the Republic of Kazakhstan adopted various measures to stimulate innovative businesses. In particular, it proposed to create conditions for increasing the innovative activity of enterprises by establishing an information database of patents and innovative projects and the attraction of insurance companies in order to redistribute the commercial risks of business innovation. In the regions of the country special events aimed at forming a "dialogue" between innovators and potential investors are being planned [6].

However, in our view, the elimination of the above constraints requires additional impetus from the Government, business and society to improve the efficiency of venture businesses, the mechanism for which is represented by us in the following Figure 1.

Development of small venture business is represented by the first source of additional impetus based on the results of the previous comprehensive

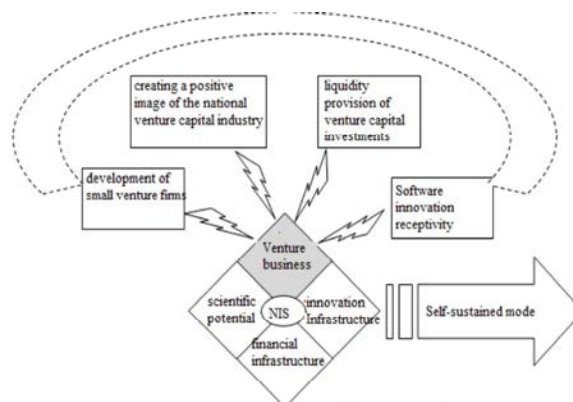


Fig. 1: An additional impetus for the effective functioning of venture businesses RK

analysis of innovation in the Republic of Kazakhstan, its nascent state and unrealized potential is apparent. While the effectiveness of small venture businesses is proved by the advanced countries of the world, where even large corporations have resorted to the establishment of similar units within their own structure as an alternative form of organization, contributing to overcome their inherent tendency to inhibit scientific - technical progress [7, p. 112]. By the acknowledgment of foreign researchers, conservatism of large corporations caused them to actively copy the Research and Development model of small firms. They began to create smaller autonomous internal organizational units, presented them with a specific task - the target project and linked it with the successful implementation of major material and moral rewards.

In addition, new small and medium-sized venture companies are being deliberately created by large corporations to run a series of tasks which in the framework of the parent company were considered to be impractical and ineffective.

International competition and deadlines for development of technical innovations made the leaders of big business recognize that in modern conditions almost none of the established firms are able to conduct independent development. This put them on top of the need to coordinate and synergize with a small venture business.

In the early 80s, a new generation of venture firms was created - joint risk companies - by integrating large and small businesses, individual university specialists, etc. If in the early 80s in the U.S.A. there were about 100 thousand people working at home using personal

computers, then in the early 90s the number exceeded 10 million people. This process is dynamic and multidimensional, the constant change of its participants and communications system acquires the character of a scientific search for new organizational forms that accelerates substantive embodiment of modern scientific knowledge [8, p. 118].

At the present stage of scientific and technological evolution, the role of small business in research and development has increased substantially. This is due to the fact that scientific and technical development has been given to small and medium-sized high-tech firms utilizing innovative modern technology (microprocessors, microchip and microcomputers), which are appropriate to their size and allows them to conduct production and development at the highest technical level [9, p. 58]. The advantage of a small venture business is flexibility, mobility, ability to reorient, modify the search direction, quickly capture and try out new ideas. The desire for profit, market pressure and competition, the specific task, tight deadlines, force developers to act efficiently and quickly, intensifying the research process [10, p. 52].

### **Two Categories of Small Venture Firms Are Distinguishable:**

- Firms, repurchased from the owners/managers, capable of a detailed assessment of the prospects for the development of these enterprises (so-called "buy-out");
- New firms founded by employees of well-known high-tech companies that are able to implement ideas and projects prepared even within the walls of their former firm, of course, with its consent (so-called "spin-off").

At the start, young innovative companies do not possess the necessary resources to build the business and without proper collateral and guarantees of repayment of funds, are unable to get a bank loan or to place their securities on the stock market. In world practice, help to entrepreneurs at this stage is provided by creating funds of financial support for young technology companies.

In order to achieve set goals and make a profit from its innovation, such firms must comply with certain terms and conditions, which are of great relevance for Kazakh venture companies.

First, it is necessary to have a clear picture of demand volume of potential customers for innovation, its economically expressed advantages over existing

methods to meet this demand, i.e. a comprehensive forecast of the economic potential of innovation for a sufficiently long term should be made.

Second, it is essential that managers and key staff of small innovative firms meet some special requirements such as the personal qualities of dedication, high availability and interest, since all key personnel of the company, as a rule, have a share in it. Also, age and experience of the founder of the company is important.

Third, with limited material-financial resources and exceptional market uncertainty, quality of the organization and management plays a huge role. Selected style and methods of leadership should foster an atmosphere of creativity, combined with speed and flexibility in decision-making [11, p. 72].

Among the main factors contributing to the revitalization of venture innovation activities of small firms, are the following:

- Development of a system of laws and regulations governing venture innovation;
- Development of financial support institutions for venture innovation activities;
- Creation of innovation infrastructure (information management; communications, financial, economic, legal advisory services, consulting in the field of marketing and advertising);
- Solving the issues of standardization and quality control of the product;
- Development of international scientific and technological cooperation.

Thus, the scope of small businesses is rightly considered to be one of the most important sources of new growth impetus of efficiency of venture businesses. Because here, per employee, there are 2.5 times more fundamentally new products than in large companies. Over 60% of major innovations of the twentieth century were created due to small venture firms. No wonder small venture business is called a kind of "landfill development and testing of new technical ideas" as well as the production of rapid adjustment to changing conditions [12].

### **CONCLUSION**

A broad propagation of stories of successes of technology companies in the media on television, radio, print, Internet, will serve to form a positive image of the national venture industry and enhance the attractiveness of entrepreneurship in small and medium-sized innovative technology businesses. This requires;

- Creation of national television channels broadcast to the regions, regular consultation and educational TV program on the basics of business ventures;
- Organization of a system of training of journalists in the regional media on business ventures;
- Creation of an Internet site dedicated to venture entrepreneurship, the contents of which will serve for mass public education of regions.

Liquidity of venture capital investment, in our view, is also an essential condition for the creation of additional impetus for an increase of the efficiency of venture businesses in Kazakhstan. In this connection, for the free transfer of venture capital funds from invested enterprises through the sale of shares, a developed stock market is necessary, which is an important tool to ensure the liquidity of venture capital investments, as well as the system of widely used in the West of selling their venture investors to strategic investors. A strategic investor, which is usually a large industrial manufacturer, provides a large-scale replication of high-tech products and the development of significant segments of the market.

It is necessary to organize venture fairs and create a network of marketplaces for the sale of high-tech enterprises. Later, as the number of companies receiving venture capital investments increases, electronic exchanges of high-tech companies in the Internet and independent stock exchanges will be created and operating.

It is necessary to develop a national strategy for the development of the stock market and to stimulate long-term investors, which would provide legal and economic measures to promote the Institute's initial public offering of shares on the stock market and corporate venture capital investment funds.

Thus, promotion of Kazakh enterprises to achieve innovation is possible by:

- Establishing standards of leading scientific and technical products and the introduction of measures to stimulate acquisition of modern technology by domestic industry created by Kazakh developers;
- Formation of the forecast development of a promising "technology corridor";
- Establishment and strengthening of corporate (vertically and horizontally integrated) structures in the industrial-technological sphere, which promote the susceptibility of domestic entrepreneurs to innovation.

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