нашего исследования могут быть интегрированы в Народную программу IPO/SPO в качестве предупреждающего индикатора, который повлияет на последующие изменения качества данных на предприятиях со смешанным государственным участием.

Ключевые слова: Качество финансовых данных, Структура собственности, Республика Казахстан, Народное IPO/SPO, COVID-19

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МРНТИ 06.81.25
JEL Classification: 030
DOI: https://doi.org/10.52821/2789-4401-2023-5-109-121

KAZAKHSTAN EXPERIENCE OF VENTURE CAPITAL FINANCING OF TECHNOLOGY ENTREPRENEURS

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ABSTRACT

The economy cannot function without a high-quality technology production sector. To do this, a connection between science and business must be established. Supporting technology entrepreneurship is the first step in building communication amongst them. Technological entrepreneurship is a high level of commercialization of high-tech technologies with high added value.

Technology-based entrepreneurship needs an effective ecosystem where venture capital investment is developing, as it is a high-risk investment tool. The following indicators demonstrate the relevance of the study: R&D expenditures in the country's GDP have significantly decreased over the past 10 years; the rating of the Republic of Kazakhstan in GEM, according to the indicator «Access to entrepreneurial finance» – 38th place out of 45 countries; the rating in the Venture Capital & Private Equity Country Attractiveness Index – 54th place.

The purpose of the study is an analytical and empirical review of venture investment in technological entrepreneurship in the Republic of Kazakhstan.

The research methodology is based on the methods of basic statistics, logical analysis, correlation and regression analysis, questionnaires, and content analysis.

The originality of the work lies in the study of a phenomenon of gaining momentum in the country as venture financing of technological entrepreneurship, through a survey of technological entrepreneurs of the Republic of Kazakhstan.

The results of the study show that venture financing significantly affects the development of technological entrepreneurship. However, this method of financing is mainly available only to large enterprises. The authors come to the conclusion that techno-trainers find access to venture financing moderately difficult and mainly rely on personal finances.

Keywords: technological entrepreneurship, innovation, venture investments, R&D.

INTRODUCTION

Technological entrepreneurship is the process of creating a startup from an innovative technological idea. As a rule, the technological type of entrepreneurial activity is increasingly common in the field of information technology, where the product of entrepreneurship can be commercialized most quickly. The technological type of entrepreneurship needs an effective ecosystem, where science is transferred to business, venture financing is developing and the breadth of the technology market is characteristic. Of course, there are restrictions that are present in traditional forms of financing innovative enterprises, but these restrictions are eliminated by such an innovative form as venture capital. Creating conditions for the development of startup infrastructure and the culture of venture investment is one of the areas of state support for innovation in the Republic of Kazakhstan.

Venture financing was developed in the United States of America in the middle of the XX century, during the formation of the knowledge economy. The emergence of technological entrepreneurship into a separate group of firms based on new technologies occurred in the mid-1990s, when the Silicon Valley of Stanford University and MIT Road 128 in the USA became famous – «fields» of high-tech startups.

Financing innovation activities by investing in the authorized capital, buying financial instruments, as well as providing cash loans – all this is risky financing. Investors' equity investments cannot be traded on the stock exchange, and are naturally not convertible quickly. Only upon exiting the project and the success of the product of technological entrepreneurship, the investor has the opportunity to count on profit. The infrastructure of venture financing has reached development in the USA, some European countries, where pension funds have been actively involved in supporting high-risk entrepreneurship, which allowed them to accumulate excess profits, as well as the possibility of state support for innovation. Unlike the USA and Europe, the Unified National Pension Fund of the Republic of Kazakhstan does not participate in investment processes with high risks, therefore, there is no possibility of obtaining excess profits. Such a situation can be interpreted as distrust of Kazakhstani business in general and poor competence in comparing risks and profitability when searching for possible financial investments. Today, venture capital financing in the Republic of Kazakhstan is in its embryonic form, but it has great potential for growth.

To achieve the purpose of the study, the following tasks were set:

- to analyze the Republic of Kazakhstan's the venture capital market;
- to review global ratings of venture investments and indicators of technological entrepreneurship;
- classify the innovative risks of venture financing of technology entrepreneurs;
- conduct a survey of respondents - technological entrepreneurs of the Republic of Kazakhstan;
- to identify or refute the relationship between the indicators of venture investments and the annual turnover of the company.

The development of theoretical approaches of venture capital has been influenced by the works of many scientists. For the first time, the study of the relationship of venture capital to the development and implementation of innovations in the United States in 1998 was conducted by S. Kortum and D. Lerner, who confirmed the positive impact of risk financing on labor productivity growth [1]. Their work became the basis for a quantitative study of the impact of risky capital on the country's economy.

The study of the impact of venture capital on the attractiveness of businesses (in particular small and medium-sized) in further obtaining and diversifying sources of financing (in attracting bank loans) was carried out [2]. The ecosystem of entrepreneurship financing was studied by Vincenzo Capizzi, Annalisa Groce, Francesca Tenca, in their study they studied the ratio of the practice of business angels in further venture financing and confirmed the positive impact, as well as proved the negative impact of monitoring conducted by business angels to further attract venture investments [3].

M. G. Colombo and L. Grilli in their study «On growth drivers of high-tech start-ups: exploring the role of founders' human capital and venture capital», proved that companies funded by venture investors make an undeniable great contribution to the development of the economy and innovation system [4].

Ensuring the economic development of the country at the level of firms through the influence of venture investments on them was studied by S. Manigart and H. Sapienza in the work «Venture capital and growth» [5]. The researchers Fabio Bertoni, Massimo G. Colombo, Luca Grilli also proved the significant impact of venture financing on the growth of high-tech start-ups in Italy [6].

In general, studies conducted earlier in various regions of the world by foreign scientists confirm a positive relationship between venture financing and productivity growth of firms and economies. For example, A. Zh. Baymukhamedova in her research proved the influence of favorable conditions in the form of tax benefits, regulatory and legal framework of innovations and financing for venture investors on the inflow of financial resources, efficiency and improvement of the national innovation system [7].

Kazakh scientists L. A. Kazbekova, A. S. Shaynurova, N. B. Kultanova analyzed the venture capital market in Kazakhstan and came to the conclusion that the venture capital market of Kazakhstan is at very early stages of development, and the main goal of risk funds is not to make a profit but to develop [8].

Existing foreign and Kazakh studies only confirm the need for further in-depth study of the relationship of venture investment in technological entrepreneurship.

In the Republic of Kazakhstan, risk financing acquired the opportunity to develop in 2003 (the creation of «National Innovation Fund» JSC). The main document regulating the legal status and activities of venture funds is the Law of the Republic of Kazakhstan «On Investment and Venture Funds» dated July 7, 2004 No. 576-II (with amendments and additions as of 02.01.2021). All the measures taken have become an important element of the formation of the innovation system of Kazakhstan.

To date, when financing technology entrepreneurs, venture funds have an advantage, which finance up to 100 % of its cost in the project, depending on the terms of agreements on further profit sharing. There is an undeniable advantage of venture funds in comparison with second-tier banks. Small knowledge-intensive firms often do not have sufficient collateral to obtain a loan from banks for business development. Obtaining loans from Kazakhstani banks secured by a patent and an industrial design are provided infrequently. All this is due to the difficulties of assessing the value of intellectual property rights, as well as due to the high cost of valuation services. It is not profitable for banks of the Republic of Kazakhstan to accept intellectual property objects as collateral, due to their low liquidity.

Venture capital is realized through high risk, which is characterized by one of the principles of such investment – «big risk – big income». Figure 1 clearly illustrates the classification of types of innovative risks of venture capital.

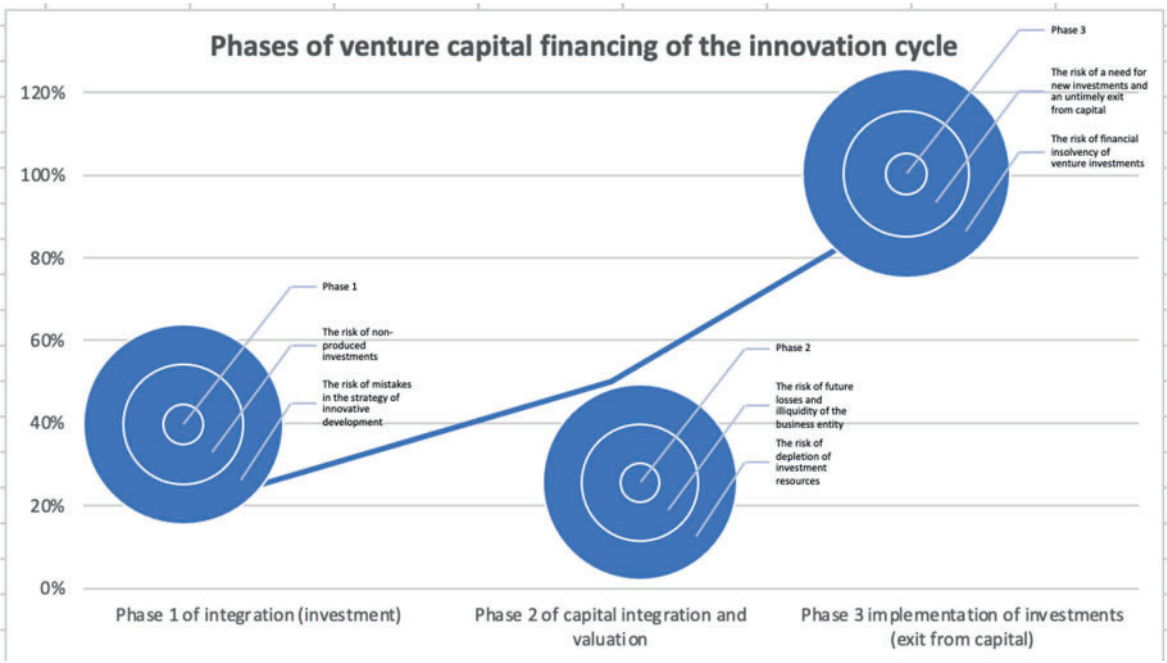

Figure 1 – Classification of innovative risks of venture capital by phases of financing of an innovative project

Note – compiled by the authors based on [9]

At each stage of the development of an innovative project, there are specific risks, where the initial stage of the development of an innovative project is most at risk. There are many factors that influence the magnitude of risks, which include development in the industry, in the region and in the economy of the country as a whole.

The Kazakhstan venture capital market of the country is on the way to formation. The existing gaps in the support of technological entrepreneurs in the Republic of Kazakhstan can be indicated by the lack of financial resources and high costs of innovation for enterprises [10]. According to the official data, entrepreneurs noted that there are a number of financial problems they face when implementing innovations: lack of financial resources and high costs for innovations and technologies, difficulties in finding partners for innovation. This speaks to the acute issues facing researchers in the financing of technological entrepreneurs in the country, in particular, the issues of venture financing.

THE MAIN PART OF THE STUDY

The Global Entrepreneurship Monitor Report: Kazakhstan 2020-2021, compiled under the guidance of the Higher School of Business (HSE) of Nazarbayev University, demonstrates the results of monitoring entrepreneurship in the Republic of Kazakhstan in terms of «Access to entrepreneurial finance» – 38th place out of 45 GEM countries. A rather low indicator in comparison with the average indicators of global monitoring [11, 42 p.].

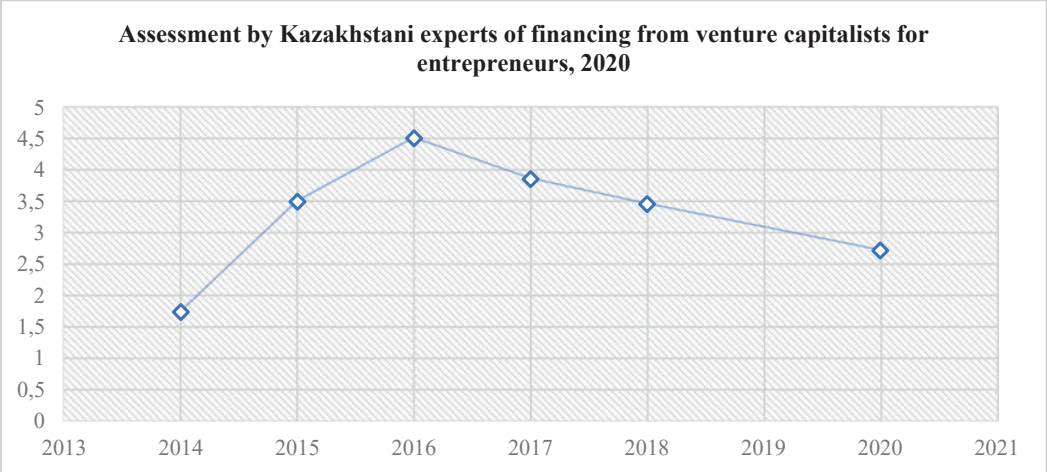

Figure 2 – Assessment by Kazakhstani experts of financing from venture investors for entrepreneurs, 2020

Note – compiled by the authors on the basis of [11]

As we can observe from the results of a survey of the adult population of the 18-64 age group and a survey of national experts, there is a significant decrease in the sources of financing for entrepreneurs from venture capitalists. The survey data of the experts of the report are presented only for 2020, due to the lack of recent statistics. The authors demonstrate the acute relevance of the study of this issue.

The rating of the Republic of Kazakhstan in the Venture Capital & Private Equity Country Attractiveness Index 2021 also clearly demonstrates the relevance and necessity of research and stimulation of the venture industry in Kazakhstan.

Table 1 presents an index that clearly demonstrates how attractive countries are for investors, taking into account venture capital assets and direct investment. This ranking uses the earliest information of the investment environment and the assessment of doing business in 125 countries. The liquidity of the stock market, IPO and public issue activity, activity in the mergers and acquisitions market, debt and credit market, the share of overdue bank loans in the total amount of gross loans, the tax regime, investor protection and corporate governance, the humanistic and social environment, the culture of entrepreneurship and the prospect of concluding transactions.

Table 1 – Rating of the Republic of Kazakhstan in the Venture Capital & Private Equity Country Attractiveness Index 2021

Country	Rank	Score
United States	1	100
United Kingdom	2	90,3
Japan	3*	87,4
Russia	30*	66,1
Kazakhstan	54*	54,1
*The increase in the indicator over a 5-year period		
Note – was compiled by the author on the basis of [12]		

The content of the index, individual indices of venture capital and direct investment, as well as calculation weighting schemes include the following indicators: economic indicators (GDP, estimated objective GDP growth, unemployment rate), the significance of the capital market (the vastness of the stock market, the market valuation of companies listed on the stock exchange, the number of national companies), the liquidity of the stock market, IPO and public issue activity, activity in the mergers and acquisitions market, debt and credit market, the share of overdue bank loans in the total amount of gross loans, the tax regime, investor protection and corporate governance, the humanistic and social environment, the culture of entrepreneurship and the prospect of concluding transactions. In this rating, the Republic of Kazakhstan lags behind other countries, which proves the need for further development and study of this issue.

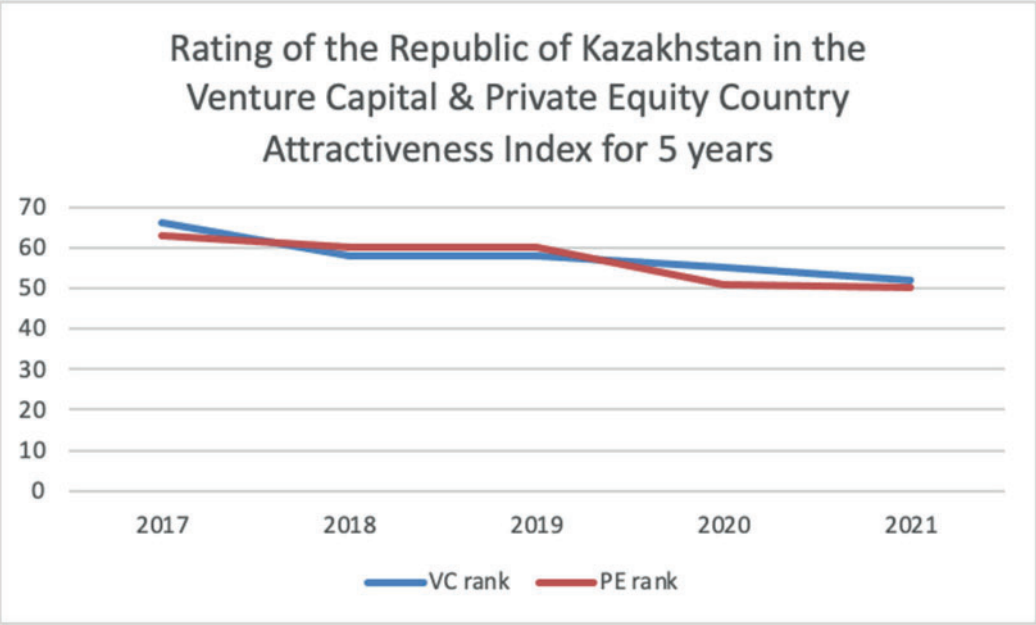

Figure 3 – Rating of the Republic of Kazakhstan in the Venture Capital & Private Equity Country Attractiveness Index for 5 years

Note – compiled by the authors on the basis of [12]

The trends of the Republic of Kazakhstan from 2017 to 2021, that we can observe a decreasing trend in the rating according to the indicator «entrepreneurial opportunities», which includes taking into account such factors as innovation, the number of articles in scientific and technical journals, barriers to starting a busi-

ness, difficulties with closing a business and the development of corporate R&D. The largest decrease can be observed in terms of innovation and corporate R&D. However, in general, there are fluctuating indicators for other indicators at times, which allows the country to improve its rating indicators.

This index gives an idea of the «possibility of successful transactions» when investors evaluate Kazakhstan taking into account institutional and socio-economic factors. The situation can be improved by improving the development of the index indicators, as indicated above.

One of the important problems that creates difficulties in the development of the venture capital investment market is the lack of transparency and accessibility of transactions in the republic. For example, according to the statistics of venture investments of the countries of the Organization for Economic Cooperation and Development (hereinafter – the OECD), there is a big gap between these indicators and indicators of Kazakhstan risky investments (Table 2).

Table 2 – Statistics of venture investments in the OECD countries, the Russian Federation and the Republic of Kazakhstan

Country	**Development stage**	**2018**	**2019**	**2020**	**2021**
United States	Total (Seed, Start-up (other early stage), Later stage venture	137 856.936	135 648.691	-	-
United Kingdom		2 745.083	3 349.978	3 406.929	5 176.394
Japan		2 285.752	2 502.530	2 074.464	3 031.316
NON OECD economy Russia		155.000	131.000	-	-
Kazakhstan		9.160	9.270	27.800	-
Note – compiled by the authors on the basis of [13]					

As can be seen from table 2, the indicators of Kazakhstan lag behind global trends. This can be explained by the novelty and momentum of the venture capital industry in the country, as well as the existing institutional and socio-economic gaps in the current national innovation system. As a result, the issue of the development of venture financing and research of Kazakhstan's risky investment market and its impact on the development and promotion of technological entrepreneurship in the country should become a subject for further research by scientists.

The development of the innovation infrastructure, as well as the interest of the authorities, naturally have a great impact on the survival of investment projects and on their ability to further commercialization. This fact is clearly demonstrated by the share of expenditures on research and development (hereinafter referred to as R&D) in the gross domestic product of the country (hereinafter referred to as GDP) (Table 3).

Table 3 – Research and development expenditure in Kazakhstan 2013-2021 (% of GDP)

Country	**Period**					
	2013 2014 2015	2016	2017	2018 2019	2020	2021
Kazakhstan	0,17	0,14	0,13	0,12	0,13	0,13
Note – compiled by the authors on the basis of [14]						

Due to the lack of statistics at the global level on R&D expenditures for 2021,2022, the authors conducted comparative statistics on the available data (Table 4). As can be seen from Table 3, R&D expenditures in the GDP of the country of the Republic of Kazakhstan have significantly decreased over the past 10 years and

lag behind the indicators of developed countries (Table 4). However, it is worth mentioning that by 2025 the government expects growth of 0.87 % of the country's GDP. In this connection, systematic work is underway (there was an increase of 8.1 % in 2020 compared to 2019), and the effect of the work undertaken should not be expected immediately.

Table 4 – Research and development expenditure (% of GDP), comparative statistics of countries for 2 years (from 2019-2020)

	Research and development expenditure (% of GDP)		Change R&D, 2019 to 2020
Country	**2019**	**2020**	
United States	3,17	3,45	+0,28
United Kingdom	1,71	-	-
Japan	3,2	3,26	+0,6
Russia	1,04	1,10	+0,6
Kazakhstan	0,12	0,13	+0,1
Note – compiled by the authors on the basis of [14]			

Today, monetary studies are being conducted in the country, which are aimed at detecting and removing barriers to the development of entrepreneurship.

One of the most important such factors is access to finance. There is not a little data confirming the lack of financial resources. For example, 1/3 of startups in Kazakhstan have difficulties with access to financing, while startups from large sectors have easy access to financing. To date, according to official data from the Tech Hub of the Astana International Financial Center (hereinafter – AIFC), venture capital accounts for only 8.3 % of startups according to the results of the study for May 2021 [15]. The quality of Kazakhstani startups competes with startups from foreign countries, but their number does not increase, as a result of which it is impossible to talk about a significant increase in the number of investments provided. The reason for the current situation is the stage of development of the startup ecosystem of the Kazakh market, which, with newly issued and prepared financing and subsidy support programs, as well as with still emerging and changing support measures, is still the initial stage of the formation of a solid and effective startup ecosystem.

Another reason is the lack of conditions of benefit while seeking investments by technological entrepreneurs in the Republic of Kazakhstan. The main sources of financing are the enterprises' own funds. This can be confirmed by the official innovation statistics for 2021 of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, where we can observe this trend among 28,203 enterprises of the republic. Of which 89.5 % are innovatively passive.

To conduct the study, the authors used the method of descriptive statistics, based on data from the Bureau of National Statistics, on data from the Global Entrepreneurship Monitor report: Kazakhstan 2020-2021, on data from The World Bank research group, as well as on the study "Startup Ecosystem in Kazakhstan" conducted by Tech Hub AIFC together with Tuz Ventures. Basic statistics were analyzed through basic statistical procedures as well as through logical analysis. The authors conducted a correlation analysis of the results of the survey of 101 respondents from the Republic of Kazakhstan. The total aggregate of all respondents of enterprises as of May 24, 2022 is 28,203 people; 10.5 % (2,960) of them are innovatively active, among them 3.4 % (101) participated in the study.

The questionnaire was sent to 101 respondents; it consists of 9 items ($\alpha = 0.723$), Cronbach's Alpha based on standardized elements of 0.671.

Internal consistency is interpreted as «good», being between the values of $0.7 \leq \alpha < 0.8$.

Portrait of the respondent:

● an entrepreneur engaged in innovative / high-tech entrepreneurial activity, or organizing an innovative project at an early stage its development;

● employees of companies engaged in innovative / high-tech entrepreneurial activities.

● participants of startup teams who have their own project in the form of a pitch deck, but have experience in attracting investments and are engaged in raising capital.

Territorial scope of the study: The Republic of Kazakhstan. Age coverage: 18-35 [16].

To analyze the factors affecting technological entrepreneurship, the indicators listed below were taken. The study uses a correlation analysis method that takes into account such factors as:

● sources of innovation financing (own funds (family, friends), venture capital, IPO of strategic and portfolio investors, loans and borrowings, foreign funds, the republican budget, grant funds, start-up funds);

● annual turnover of the company;

● the period of operation of the company.

The authors put forward the following hypotheses:

H0 Venture financing has a significant impact on the company's annual turnover;

H1 Venture financing does not significantly affect the annual turnover of the company;

The results show that venture financing significantly affects the development of technological entrepreneurship in the country.

According to the report of the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan «On innovative activity of enterprises in the Republic of Kazakhstan» [10], among the most painful reasons for which innovative activity was not carried out at enterprises, it is possible to highlight the lack of financial resources. For 2021, in the republic as a whole, out of the total cost of innovation 800 089.05 million tenge, the largest expenses, namely 77.6 %, are borne by enterprises (own funds). There are no statistics on venture investments.

As a research base, we can conduct a survey of the results of the survey, where we trace the existence of the relationship and the need for the development of venture financing. For the analysis, the authors calculated a measure of the degree and direction of the relationship between the values of variables, analyzed statistical indicators of the probability of a relationship between variables measured on a quantitative scale. The authors tested hypotheses about the relationships between the variables shown in the table 5, using correlation coefficients.

Table 5 – Correlation analysis

		Innovation costs at the expense of venture funds	**Approximate value of the annual turnover**
Innovation costs at the expense of venture funds	Pearson Correlation	1	,498**
	Sig. (double-sided)		,000
Approximate value of the annual turnover	Pearson Correlation	,498**	1
	Sig. (double-sided)	,000	
	N	101	101
Note – compiled by the authors ** The correlation is significant at 0.01 (two-way).			

As can be seen from Table 5, there is a moderate positive relationship of a high degree of significance between the indicators “The innovation costs at the expense of venture funds” and “The annual turnover of the company”, which may indicate that there is a link between the impact of venture financing on the annual turnover of the company. The results of the regression analysis show a significant relationship between the

sources of financing, in particular venture capital on the annual turnover of the company, as well as the value of R 2 = 24.8 % implies an increase in variance of 24.8 %. The results also showed Sig significance = 0.000b, which means a significant relationship between the variables «The innovation costs due to venture funds» and «The annual turnover». For example, S. Kortum and D. Lerner proved the connection between venture capital and innovation. Their research touched on the US economy and the conclusions are limited to the framework of one national economy [1].

However, we can conclude that risky financing has significantly affected the results of the annual turnover of the respondents surveyed by the authors of the study.

THE RESULTS OBTAINED (CONCLUSIONS)

A special place in the development of technological entrepreneurship is occupied by financial resources, which are needed not only in significant quantities and are subject to high risks, but must be formed through the joint efforts of public and private capital. Today, all measures taken by the state in the field of technological entrepreneurship development, both legislative and economic, do not lead to the expected results. The authors conclude that there are no real incentives for the development of innovative and technological entrepreneurship and the imperfection of the innovation policy, the lack of real incentives for competition, as a result of which the authors come to the conclusion that the innovation process in the Republic of Kazakhstan falls into an institutional trap. As a result of the study, the authors conclude that venture financing of technological entrepreneurship in development faces a number of serious problems that hinder its effectiveness. After analyzing the global ratings, the authors demonstrate the lagging positions of the Republic of Kazakhstan in venture investments. Confirms the position of the country – R&D indicators. When considering this aspect in the context of a 9-year period, stability is observed, and the state's policy in this direction assumes significant shifts by 2025.

If we analyze the data on R&D spending as a percentage of GDP of the countries presented in the study (United States, United Kingdom, Japan, Russia, Kazakhstan), we can see that the greatest progress in the increase is in the countries that are leading in terms of attractiveness for placing venture and private investments. Kazakhstan increased spending on R&D by 0.1 percent (54th place in the ranking of the attractiveness of venture capital investment), while the United States by 0.28 (1st place), Japan (3rd place) and the Russia by 0.6 % (30th place). The relationship between the indicators of R&D spending and venture capital investments can be clearly seen in the study of the authors.

The authors also come to the conclusion that innovation and corporate R&D suffer most in the country, in the period from 2017 to 2021 there is a significant decrease in the position in the country in the Venture Capital & Private Equity Country Attractiveness Index in terms of «entrepreneurial opportunities».

Among the hypotheses put forward by the authors, the authors confirm the following:

H: venture financing has a significant impact on the annual turnover of the company;

Venture financing significantly affects the development of technological entrepreneurship in the country. But today, this method of financing is mainly available only to large enterprises. The analysis of venture financing of technological entrepreneurship allows us to conclude that state support measures are important in this regard. Technology entrepreneurs in the Republic of Kazakhstan have the need to finance investments both at the early stage of project launch and at the implementation stage, however, in most cases the amount of requested investments ranges from 50 to 100 thousand dollars on average per project.

Based on the survey conducted, the authors come to the conclusion that today technology entrepreneurs find access to venture financing moderately difficult and mainly rely on personal savings and friends, family for initial and ongoing financing. There is a trend where entrepreneurs attract their own capital, and its amount is high due to the early stage of a startup.

In conclusion, authors note the need for higher activity of venture investors, which would contribute to changing the current structure of innovation financing from public to private and would minimize difficulties in attracting investments.

The study of venture investments and its impact on the development of high–tech startups by studying a wider range of entrepreneurs and studying at the global level is the basis for further study by domestic

scientists. The authors also recommend paying attention to the lack of statistics on the venture capital market in Kazakhstan.

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ТЕХНОЛОГИЯЛЫҚ КӘСІПКЕРЛІКТІ ВЕНЧУРЛЫҚ ҚАРЖЫЛАНДЫРУДЫҢ ҚАЗАҚСТАНДЫҚ ТӘЖІРИБЕСІ

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АННОТАЦИЯ

Экономиканын маныздыэлементы – сапалы технологиялық өндіріс секторы. Технологиялық өндіріс секторы дамуы үшін ғылым мен бизнес арасында байланыс орнатылуы қажет. Олардың арасындағы байланысты орнатудың бірінші кезеңі технологиялық кәсіпкерлікті қолдау болып табылады. Технологиялық кәсіпкерлік – жоғары қосылған құны бар ғылымды қажетсінетін технологияларды коммерцияландырудың жоғары бір деңгейі.

Технологияға негізделген кәсіпкерлікке венчурлық капиталды инвестициялау дамитын тиімді экожүйе қажет, өйткені ол инвестициялаудың жоғары қауіпті құралы болып табылады. Зерттеудің өзектілігін мынадай көрсеткіштер көрсетеді: соңғы 10 жылда елдің ЖІӨ-де ҒЗТКЖ шығындары айтарлықтай төмендеді; Қазақстан Республикасының gem рейтингі, «кәсіпкерлік қаржыландыруға қол жеткізу» көрсеткіші бойынша – 45 елдің ішінен 38 орын; the venture Capital & Private Equity Country Attractiveness Index рейтингінде – 54 орын.

Зерттеудің мақсаты Қазақстан Республикасындағы технологиялық кәсіпкерліктің венчурлық инвестициялаудың аналитикалық және эмпирикалық шолуы болып табылады.

Зерттеу әдістемесі негізгі статистика, логикалық талдау, корреляциялық-регрессиялық талдау, сауалнама, және талдау мазмұнынан турады.

Зерттеудің бірегейлігі / құндылығы Қазақстан Республикасының Технологиялық кәсіпкерлеріне сауалнама жүргізу арқылы технологиялық кәсіпкерліктің венчурлық қаржыландыру сияқты елімізде қарқын алып келе жатқан құбылысты зерттеу болып табылады.

Зерттеу нәтижелері венчурлық қаржыландыру технологиялық кәсіпкерліктің дамуына айтарлықтай әсер ететіндігін көрсетеді. Алайда, қаржыландырудың бұл әдісі негізінен ірі кәсіпорындарға ғана қол жетімді. Авторлардың қорытыны бойынша техно-пренерлер венчурлық қаржыландыруға қол жетімділікті орташа күрделі деп санайды және негізінен жеке қаржыға сүйенеді.

Түйін сөздер: технологиялық кәсіпкерлік, инновация, венчурлік инвестициялар, ҒЗТКЖ.

КАЗАХСТАНСКИЙ ОПЫТ ВЕНЧУРНОГО ФИНАНСИРОВАНИЯ ТЕХНОЛОГИЧЕСКОГО ПРЕДПРИНИМАТЕЛЬСТВА

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АННОТАЦИЯ

Качественный технологический производственный сектор – то без чего не может существовать экономика. Для этого необходимо наладить связь между наукой и бизнесом. Первым этапом на пути установления коммуникации между ними является поддержка технологического предпринимательства. Технологическое предпринимательство – высокий уровень коммерциализации наукоемких технологий, обладающее высокой добавленной стоимостью.

Предпринимательство, основанное на технологиях, нуждается в эффективной экосистеме, где развивается венчурное инвестирование, так как представляет собой высоко-рискованный инструмент инвестирования. Актуальность исследования демонстрируют следующие показатели: затраты на

НИОКР в ВВП страны значительно понизились за последние 10 лет; рейтинг Республики Казахстан в GEM, по показателю «Доступ к предпринимательскому финансированию» – 38 место из 45 стран; рейтинг в the Venture Capital & Private Equity Country Attractiveness Index – 54 место.

Целью исследования является аналитический и эмпирический обзор венчурного инвестирования технологического предпринимательства в Республике Казахстан.

Методология исследования основана на методах базовой статистики, логического анализа, корреляционно-регрессионного анализа, анкетирования, и контент анализа.

Оригинальность / ценность исследования заключается в исследовании такого набирающего обороты в стране явления как венчурного финансирование технологического предпринимательства, посредством опроса технологических предпринимателей Республики Казахстан.

Результаты исследования показывают, что венчурное финансирование существенно влияет на развитие технологического предпринимательства. Однако такой способ финансирования в основном доступен лишь крупным предприятиям. Автор приходят к выводам что техно-пренеры находят доступ к венчурному финансированию умеренно сложным и в основном полагаются на личные финансы.

Ключевые слова: технологическое предпринимательство, инновации, венчурные инвестиции, НИОКР.

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