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The state support of industrial and innovative activities in Kazakhstan: innovation grants

In the article the goals, objectives and measures of the state support of industrial and innovative activity in the Republic of Kazakhstan at the present stage of economic development were disclosed. A number of legal documents regulating the innovation activity in the country was considered. Some of the elements of industrial-innovative infrastructure: special economic zones, industrial parks, technology commercialization centers, industrial design offices; international centers of technology transfer, innovation clusters were highlighted. The main types of innovation grants, issued by the State, in particular to support the production of high-tech products at the initial stage of development; conducting industrial research; patenting in foreign countries and (or) regional patent organizations; acquisition of technology; commercialization of technologies; introduction of managerial and production technologies were reflected.

Key words: government support for industrial innovation, innovation grants, technological parks, industrial design offices, industrial and innovation infrastructure.

In order to ensure the sustainable development of Kazakhstan through diversification and modernization of the economy, creating the conditions for the production of competitive products and export growth, the Decree of the President of the Republic of Kazakhstan dated 17 May 2003, approved Strategy of Industrial and Innovation Development of Kazakhstan for 2003–2015. The Strategy identified the achievement of sustainable development through economic diversification, promoting withdrawal from raw orientation, preparation of conditions for the transition to long-term service and technology economy.

In 2005, in order to ensure the conditions for sustainable development of a competitive economy of the country through the effective use of intellectual potential, generation, distribution and commercialization of new knowledge in the republic was adopted on the formation program and the development of national innovation system of the Republic of Kazakhstan for 2005–2015. This program was the basic document on the formation and development of the national innovation system. The aim was to form an open innovation system providing for the establishment of a competitive final product based on the use of domestic and foreign scientific capacities and technologies. New evidence that innovations are the top priority of economic policy is the adoption of the 2006 Strategy for Kazakhstan's joining the 50 most competitive countries of the world [1–4].

For implementation of the Strategy priorities fully need to further strengthen the innovation activities of all economic systems. This requires, above all, strengthening of the state science and technology and innovation policies.

Therefore, in 2010 in the Annual Message of the President of the Republic of Kazakhstan N.A. Nazarbayev «New Decade — New Economic Growth, New Opportunities for Kazakhstan» the Head of State noted that sustainable development in the coming decade will be provided due to accelerated diversification and raising the competitiveness of the national economy.

Currently, all favorable conditions were created for the development of innovation. Innovative activities in the Republic of Kazakhstan is regulated by the following regulations, providing legal support: The laws of the Republic of Kazakhstan «On Science», «On Copyright and Related Rights», «On state support of small business», «Patent Law of the Republic of Kazakhstan», «On technical regulation», «On regulation of the trading activity», «On investment funds», «On Information». Other documents: Kazakhstan innovative development concept, organization and rules of the state scientific and technical expertise, rules of formation and accreditation of specialized subjects of innovative activity.

One of the governing regulations of innovation also is the Law of the Republic of Kazakhstan «On the state support of industrial-innovative activity», which has been approved by January 9, 2012.

The purpose of the state support of industrial innovation is to increase the competitiveness of the national economy by stimulating the development of priority sectors of the economy.

The main objectives of state support are the following [5–8]:

- creation of favorable conditions for the development of priority sectors of the economy;
- creation of favorable conditions for modernization (technical upgrading) of existing production facilities in order to improve productivity;
- support the effective implementation of innovation and development of high-tech industries;
- development of the research base in the priority sectors of the economy and its integration with the production process.

In accordance with this Law, innovation is the result of physical and (or) legal entities who have received:

- practical implementation in the form of new or improved production facilities, technologies, goods, works and services,
- the organizational, technical, production decisions, administrative and commercial nature,
- other socially useful results, taking into account environmental safety in order to increase economic efficiency.

In accordance with the Law «On the state support of industrial-innovative activity», industrial and innovation infrastructure consists of the following elements [9–11]:

- special economic zones;
- industrial zones;
- technological parks;
- joint-stock investment funds of risk investment;
- technology commercialization centers;
- industry design offices;
- international centers of technology transfer;
- innovation clusters.

Development of the data elements that make up the industrial and innovation infrastructure, improves the condition of industrial and innovative regions and the country as a whole.

In addition, state support law is governed by the definition of the following measures of state support of industrial innovation:

- financing, including co-financing of projects, lease financing;
- provision of warranties and guarantees on loans;
- lending through financial institutions;
- subsidizing interest rates on loans issued by financial institutions, and the coupon on the bonds;
- implementation of investments in the authorized capital;
- guaranteed order;
- provision of innovative grants;
- provision of qualified human resources;
- provision of engineering and communication infrastructure;
- provision of land and subsoil use rights;
- supporting the domestic market;
- attracting foreign investment;
- development and promotion of export of domestic processed goods, services.

By the experience of many countries Kazakhstan was determined long-term vision and plan of action in the field of innovation. The next stage of Kazakhstan's innovation policy was reflected in the Concept of Innovative Development of Kazakhstan till 2020, adopted by presidential decree in June 2013. The purpose of the Concept is consonant with the Strategy «Kazakhstan 2050 — a new course of the established state» and aimed at facilitating the entry of Kazakhstan into the 30 most competitive countries of the world through the development of new technologies and services that will ensure the transition from a commodity to an innovative type of economy [12].

According to the Law of the Republic of Kazakhstan «On the state support of industrial-innovative activity» National Agency of Technological Development is the sole operator of tools to support innovation [13]. More than 3,000 innovative projects have been identified since the establishment of the National Agency for Technological Development, of which more than 535 were supported.

During the 2010–2013 years it was formed an effective innovation infrastructure consisting of 8 industrial parks, 4 industrial design offices, 21 commercialization offices and 4 regional commercialization centers, 4 international centers of technology transfer. It was established system of innovation support tools, including project and venture financing, innovation grants, services of technological business incubation, commercialization offices services, industrial design offices, service centers of international technology transfer and innovation competitions.

The State provides grants for innovative co-financing and reimburses the costs of the project, which increases the responsibility of the applicant for the success of the project.

With the adoption of the Law «On the state support of industrial-innovative activity» in 2012, a list of innovative grants was expanded and fleshed out with 4 to 9 species:

- 1) attracting highly qualified foreign specialists;
- 2) attracting consulting, design engineering organizations;
- 3) training of technical staff abroad;
- 4) introduction of managerial and production technologies;
- 5) supporting the production of high-tech products at the initial stage of development;
- 6) carrying out the industrial research;
- 7) patents in foreign countries and (or) regional patent organizations;
- 8) acquisition of technology;
- 9) commercialization of technology.

Since the launch of the program of innovative grants, more than 1,300 applications from innovators and innovative companies were reviewed, over 200 of which have received grants. With a view to the development of small and medium-sized innovative companies and projects, technology parks since 2010 is provided with the technological business incubation (TBI).

Provision of technological business incubation provide legal, accounting, marketing, economic support, provision of infrastructure, project management services, business plan development, learning the basics of business planning and innovation management, and other services.

In accordance with state programs the main places of concentration of innovation (innovation clusters) are technological parks in Kazakhstan. In the country a two-tier system of technoparks — six national and seven major regional cities in Almaty, Karaganda, Uralsk, Shymkent, Ust-Kamenogorsk, Petropavlovsk and Astana was formed. A distinctive feature of national technoparks is the presence of sectoral focus of their activities and conditions of the Special Economic Zone (SEZ) with preferential tax treatment.

The implementation and operation of technology parks in Kazakhstan is carried out on the modern European model, which has the following features: the presence of a building intended to accommodate the dozens of small firms (which contributes to the formation of a large number of new small and medium-sized innovative enterprises enjoying all the benefits of the collective system of services); service system consisting of complex and simple service recruited from firms which form required for the existing structure of innovative enterprises in the services sector.

A summary of the sphere of activity of Kazakhstan's industrial parks:

1. LLP «Technological park «Algorithm»» was created in 2004 in order to ensure a favorable environment for innovation in the western region of Kazakhstan by strengthening the synergy between all actors of the innovation process, as well as the initiators of innovative infrastructure projects and support services. Fields of activity: mechanical engineering for the oil and gas industry, instrument, petrochemical, environmental protection technology.

2. The Almaty regional industrial park was created in 2005 in order to enhance the added value of enterprises, enhance competitiveness and support innovation. Areas of activity are: construction technology, building materials, chemical industry, metallurgy, mechanical engineering.

3. LLP «Technological park «UniScienTech»» was created in 2004 in order to create favorable conditions for innovation in Central Kazakhstan by means of the initiators of innovative physical infrastructure and specialized services.

4. LLP «Alatau Iy-City Management» in Almaty was created in 2003 to form a strategic framework accelerated development of the information technology industry in Kazakhstan.

5. Technological park KazNTU named after Satpayev K.I. in Almaty was created in 2004 to ensure the dynamic development of high technologies, the introduction of scientific, technical and technological developments in the industry, research and the commercialization of the final results of the R&D.

6. LLP «Regional Technology Park of Astana» was created in 2007. Areas of activity are the following: the development of technologies in construction, building materials production, technology development in industry.

7. Technological park «Altai» in Ust-Kamenogorsk was established in 2008. Areas of activity are: production and processing of non-ferrous metals, information technology, engineering, environmental technology, the production of new material.

8. LLP «East Kazakhstan regional technological park «Altai»» in Ust-Kamenogorsk was created in 2005. Areas of activity are the following: production and processing of non-ferrous metals, information technology, engineering, environmental technology, the production of new material.

9. LLP «Regional Technology Park of the South-Kazakhstan region» in Shymkent was established in 2008. Areas of activity are: the chemical building materials technology, production and processing of agricultural products, processing of hydrocarbon raw materials, environmental protection technology.

10. LLP «Regional industrial technological park «Aktobe»» in Aktobe was created in 2006. The goal is to provide conditions for the sustainable development of a competitive economy of the region through the effective use of intellectual potential, generation, distribution and commercialization of new knowledge in the region through the mechanism of public-private partnership. Areas of activity are: mining and smelting industry, agriculture, oil and gas industry.

National technological parks are focused on the creation of the Republic of Kazakhstan in the new high-tech industries. Regional parks, among which can be noted as a high-tech technology park Almaty; technological park «Algorithm», Uralsk city; technological park «UniScienTech», Karaganda city, all of the are created in order to determine the disclosure and development of the region's innovation potential, ensuring the needs of the region's economy in innovative products.

One characteristic of Kazakhstan technological parks is their location on the territory of large enterprises with the involvement of the leading higher education institutions and research institutes.

The industrial parks of Kazakhstan prevails mixed ownership structure, i.e., public and private sectors jointly participate in the high-tech projects. Some Kazakhstani technoparks includes the so-called business incubators, i.e. building or several buildings, where for a limited time (two to five years) newly created small businesses rent space on favorable terms.

Industry design bureaus assist subjects of industrial innovation in the organization of production of new or improved products.

In Kazakhstan, there are 4 design offices in the areas of oil and gas, agricultural, transport engineering and mining equipment. These design offices have one of the strongest in the country teams of design engineers, using 3D-technology.

Industry design bureaus were created in order to promote domestic enterprises in the development of new products, through the acquisition, adaptation, development of design documentation, with the subsequent transfer on a reimbursable basis to domestic enterprises.

During the period from 2010 to 2013 the industry design bureau at the request of the machine-building enterprises 394 and purchased 64 sets of design documentation were developed. As a result of the done work to date the company has mastered the production of 178 new kinds of products.

Since 2011, the formation of a network of regional offices of commercialization is initiated. So, 21 commercialization offices have been established on the basis of the country's leading research institutes and universities. In 2012, Kazakhstan's Almaty region, Karaganda, Uralsk, Ust-Kamenogorsk and Astana were established five regional centers of commercialization. For 3 years is considered more than 400 applications scientists at 122 projects / technologies were developed concept study, of which 55 projects were selected for further commercialization [14].

Since 2004, the state invests in innovative projects according to the priorities of technological development. The main form of investment in innovative projects is a non-controlling participation in the authorized capital through the acquisition of shares / stakes in the formation or increase the authorized capital of legal entities, with the term of participation in the project up to 5 years. In order to develop high-tech and knowledge-intensive industries is also carried out work on the formation and development of the venture capital industry of the country, by entering into the charter capital of the venture funds to 49%, with a term of up to 7 years of participation.

The National Agency of Technological Development is taking part in 5 Kazakhstani venture funds and capitalization of 7 foreign venture funds. The difference from the direct project financing is that the venture capital funds are to finance the project up to 100%.

The National Agency of Technological Development carries out advocacy activities in which is actively working to promote innovation activity — on an annual basis, the republican forums, seminars in all regions, projects exhibitions (including «Field of innovation» in the competition of «Altyn Sapa» and «Chords of innovation» within the Astana economic Congress), the annual TV show — contest of innovative business plans NIF50K and rationalization decisions «Ratsionalizator.kz». In the period from 2010 to 2013 as part NIF50K competition 966 applications were received, the contest «Ratsionalizator.kz» 373 applications were received, among which were identified by 12 winners.

In its international policy of Kazakhstan is open for dialogue with all the participants of the innovation process in all countries, without exception, however, sees the priority in countries with advanced national innovation system, such as Finland, the USA, Israel, Germany, France, South Korea, Malaysia, Singapore. Currently, there is cooperation with more than 40 leading international organizations and international experts on innovation. It concluded 60 memorandums and agreements with foreign partners. Annually within Astana Economic Forum the Innovation Congress is held, which became a central discussion platform for innovative development of the country with international participation. The Innovation Congress was attended by more than 200 international experts on innovation from more than 20 countries. Establish a permanent partner-network of consultants on innovative development of more than 20 countries. So, together with experts from the European United Nations Economic Commission implemented the project «Innovation Performance Review of the Republic of Kazakhstan», with the methodological support of the Korean Institute of planning evaluation, science and KISTEP Technology held the first Technology Foresight, with the Statistical Institute of SESRIC Organization of Islamic Cooperation (Turkish Republic) implemented project «Atlas of Islamic world innovation», with the European Commission «Overview of scientific and technological development of Kazakhstan». For the development of the national innovation system proposals were worked out. In order to strengthen scientific and technological cooperation between Kazakhstan and the European Union is provided through participation in the framework programs for the development of research and technology [15].

The main activities of the Centers are the following: to stimulate technological cooperation between the two countries; access to innovation and technological information, search for potential partners; analysis in the field of science and technology trends; promoting development of domestic output to world markets. Kazakh-Korean technology cooperation center was established August 25, 2011 in Daejeon on the basis of the Korean Innovation Cluster Foundation (Daedeok Innopolis) and in Astana at the National Agency of Technological Development. KKCTC is to become a channel for the transfer of advanced technologies and experience. KKCTC also is looking for programs for training of Kazakhstani specialists in the Republic of Korea and the organization of joint research between Kazakhstan and Korean research organizations.

Kazakh-French Center of Technology Transfer was established in 2010 in the form of a consortium of two founders — JSC «Center for Engineering and Technology Transfer» (Kazakhstan) and by CEIS (France). The center is one of the concrete results of the Strategic Partnership Treaty (2008) between the Republic of Kazakhstan and the French Republic, and the Agreement on Cooperation between the Government of the Republic of Kazakhstan and the Government of the French Republic in the field of development of the real sector of the economy based on innovation (2009). The main objective of the Center is to create conditions for development of cooperation in the academic, scientific and technological fields and technology transfer between the subjects of innovative activity of the Republic of Kazakhstan and the French Republic. In general, the Kazakh-French center of technology transfer has great potential for development, in view of the interest of the French partners in the implementation of joint projects in the field of innovation and industry of Kazakhstan.

In September, 2013 an agreement on the operation of the Kazakhstan-Norwegian Center for Technological Cooperation was signed. The main activity of the Kazakh-Norwegian center for technological cooperation is aimed at the establishment and development of cooperation between organizations and companies of Kazakhstan and Norway on Innovation and Technology. The center will focus on support for cooperation between companies and research institutions of Kazakhstan and Norway, the development of technology transfer between Kazakhstan and Norway, to stimulate the creation and promotion of joint innovation and research projects between Kazakhstan and Norway.

In September 2013 the National Agency for Technological Development in cooperation with Innovaro Inc. an agreement on the operation of the Kazakhstan-American Center for Technological Cooperation. It is planned that in 2014 the Kazakh-American technology cooperation center will work in full mode and is permanently located in Silicon Valley (California) was signed.

By the experience of many developed countries such as US, South Korea, Japan, the UK, Germany, Netherlands, Hungary, Kazakhstan system of technology foresight has been applied since 2010, which is focused on the definition of the country's true priorities in the field of innovation and technology to compliance with all the global trends of technological development.

With the methodological support of the Korea Institute of planning and evaluation the technologies KISTEP in Kazakhstan jointly with the expert community the first scientific and technological foresight was held, following which the list has been identified 75 critical technologies, which will give impetus to further development of the priority sectors and will help to bring them to a new technological level.

Development of critical technologies will be ensured through the implementation of targeted technological programs involving government, business and science.

According to international practice to strengthen business engagement in the process of carrying out the process of scientific research work on the development of targeted technology programs underway in Kazakhstan. This is a completely new direction for Kazakhstan.

In 2012 in Kazakhstan with the participation of the state large industrial companies and research institutions 10 pilot targeted technology programs were first developed for the development of critical technologies in industries such as mining and smelting complex, energy, oil and gas, agriculture, chemical industry, information and communication technologies defined for the first technological foresight. In 2013, 10 developed another target technology programs are created.

It is assumed that the target technology programs will be a tool for the mobilization of all stakeholders (government, business and academia) to solve business process problems. Their implementation will be carried out on the principle of co-financing with the business. In the long term, they will be able to play a positive role in strengthening the competitiveness of the various sectors of the economy.

In general, it should be noted, the vector of innovation policy in Kazakhstan is focused on the goal of entering the 30 most competitive countries of the world.

References

- 1 *Univ T.R.* Improvement mechanisms to promote industrial innovation in Kazakhstan // *Vith Ryskulov Readings: Socio-Economic Modernization of Kazakhstan under Conditions of Global Financial Instability.* — Almaty, 2012. — С. 979–998.
- 2 *Univ T.R.* Innovational and technological component of the competitiveness of the Republic of Kazakhstan // *Vith Ryskulov Readings: Socio-Economic Modernization of Kazakhstan under Conditions of Global Financial Instability.* — Almaty, 2012. — P. 348–359.
- 3 *Мамраева Д.Г.* Национальная инновационная система: реалии и перспективы // Молодежь и глобальные проблемы современности: материалы республ. науч.-практ. конф. студентов, магистрантов и докторантов и молодых ученых (24 апреля, 2015 г.), Т. 2 / Карагандинский ун-т «Болашак». — Караганда, 2015. — С. 109–112.
- 4 *Мамраева Д.Г.* Видение инновационного развития Республики Казахстан на период до 2020 года // *Будущее науки — 2015: материалы 3 междунар. науч. конф. (23–25 апреля, 2015 г.), Т. 1 / Юго-Западный государственный университет.* — Курск, 2015. — С. 176–179.
- 5 *Kabdulsharipova A.M., Krauze V.E., Levchenko G.A., Univ T.R.* Special and industrial zones regions as «points of growth» of Kazakhstan's economy // *Vith Ryskulov Readings: Socio-Economic Modernization of Kazakhstan under Conditions of Global Financial Instability.* — Almaty, 2012. — С. 248–261.
- 6 *Kanagatova A., Nuketayeva D., Suleimenova Z.* Public Challenges in Creating an Intellectual Nation in Kazakhstan // *Proceedings of the 11th International Conference on Intellectual Capital, Knowledge Management and Organisational Learning / Rooney J., Murthy V., 2014.* — P. 259–267.
- 7 *Nurpeissova A., Univ T.R.* Some approaches to the management of human capital in the business of innovation // *Vith Ryskulov Readings: Socio-Economic Modernization of Kazakhstan under Conditions of Global Financial Instability.* — Almaty, 2012. — P. 1780–1796.
- 8 *Мамраева Д.Г.* Взаимодействие государства, бизнеса и науки в инновационно-технологической сфере // *Будущее науки — 2015: материалы 3 междунар. науч. конф. (23–25 апреля, 2015 г.), Т. 1 / Юго-Западный государственный университет.* — Курск, 2015. — С. 173–176.
- 9 *Amanbaevna T.G., Univ T.R.* Innovative development as a basis for modernization of economy of the Republic of Kazakhstan // *Vith Ryskulov Readings: Socio-Economic Modernization of Kazakhstan under Conditions of Global Financial Instability.* — 2012. — P. 663–677.
- 10 *Amirbekova D.* Theoretical Background of Knowledge Competence Development in SMEs in Kazakhstan // *Proceedings of the 2nd International Conference on Innovation and Entrepreneurship / Ribiere V., Worasinchai L., 2014.* — С. 257–263.
- 11 *Aubakirova G.* Features of Innovation Activity Management in the Republic of Kazakhstan // *Inzinerine Ekonomika-Engineering Economics.* — 2014. — Т. 25. — № 2. — С. 160–166.
- 12 Концепция инновационного развития Республики Казахстан до 2020 года, утвержденная Указом Президента Республики Казахстан от 4 июня 2013 г. № 579 // <http://akorda.kz> – официальный сайт Президента Республики Казахстан (дата обращения: 03.02.2016).

13 Закон Республики Казахстан «О государственной поддержке индустриально-инновационной деятельности» от 9 января 2012 года № 534-IV // <http://akorda.kz> – официальный сайт Президента Республики Казахстан (дата обращения: 03.03.2016).

14 Информационно-аналитический отчет за 2013 год «О тенденциях развития инноваций в Республике Казахстан и в мире // www.natd.gov.kz – официальный сайт АО «Национальное агентство по технологическому развитию» (дата обращения: 03.02.2016).

15 www.natd.gov.kz – официальный сайт АО «Национальное агентство по технологическому развитию» (дата обращения: 08.02.2016).

Д.Г. Мамраева

Қазақстандағы индустриалдық-инновациялық қызметті мемлекеттік қолдау: инновациялық гранттар

Мақалада экономика дамуының қазіргі кезеңіндегі Қазақстан Республикасындағы индустриалдық-инновациялық қызметті мемлекеттік қолдау мақсаты, міндеттері және басым іс-шаралары зерттелген. Мемлекеттегі инновациялық әрекетті реттейтін нормативті-құқықтық құжаттардың біркелкі қарастырылған. Индустриалдық-инновациялық инфрақұрылымның кейбір элементтері: арнайы экономикалық зоналар, технопарктер, технологияларды коммерцияландыру орталықтары, салалық құрастырушылық бюро, технологиялар трансфертінің халықаралық орталықтары, инновациялық кластерлері анықталған. Мемлекетпен бөлінетін инновациялық гранттардың негізгі түрлері, яғни, дамудың бастапқы кезеңіндегі жоғары технологиялы өнім өндірісі қызметін қолдау; шет ел мемлекеттері және (немесе) аймақтық патенттік ұйымдарда патенттеу; технологияларды сатып алу; технологияларды коммерцияландыру; басқару және өндірістік технологияларды ендіру т.б. жан-жақты талданған.

Д.Г. Мамраева

Государственная поддержка индустриально-инновационной деятельности в Казахстане: инновационные гранты

В статье раскрыты цели, задачи и меры государственной поддержки индустриально-инновационной деятельности в Республике Казахстан на современном этапе экономического развития. Рассмотрен ряд нормативно-правовых документов, регулирующих инновационную деятельность в стране. Выделены некоторые элементы индустриально-инновационной инфраструктуры: специальные экономические зоны, технопарки, центры коммерциализации технологий, отраслевые конструкторские бюро; международные центры трансфера технологий, инновационные кластеры. Отражены основные виды инновационных грантов, выдаваемых государством: на поддержку деятельности по производству высокотехнологичной продукции на начальном этапе развития; на проведение промышленных исследований; на патентование в зарубежных странах и (или) региональных патентных организациях; на приобретение технологий; на коммерциализацию технологий; на внедрение управленческих и производственных технологий.

References

- 1 Univ T.R. *Vith Ryskulov Readings: Socio-Economic Modernization of Kazakhstan under Conditions of Global Financial Instability*, Almaty, 2012, p. 979–998.
- 2 Univ T.R. *Vith Ryskulov Readings: Socio-Economic Modernization of Kazakhstan under Conditions of Global Financial Instability*, Almaty, 2012, p. 348–359.
- 3 Mamrayeva D.G. *Youth and the global problems of the present: proceedings of the republican scientific-practical conference of students, masters, doctoral students and young scientists (April 9, 2015)*, V. 2 / Karaganda University «Bolashak», Karaganda, 2015, p. 109–112.
- 4 Mamrayeva D.G. *The Future of Science — 2015: Proceedings of the 3rd International Scientific Conference (23–25 April, 2015)*, Volume 1 / Southwestern State University, Kursk, 2015, p. 176–179.
- 5 Kابدulsharipova A.M., Krauze V.E., Levchenko G.A., Univ T.R. *Vith Ryskulov Readings: Socio-Economic Modernization of Kazakhstan under Conditions of Global Financial Instability*, Almaty, 2012, p. 248–261.
- 6 Kanagatova A., Nuketayeva D., Suleimenova Z. *Proceedings of the 11th International Conference on Intellectual Capital, Knowledge Management and Organisational Learning / Rooney J., Murthy V.*, 2014, p. 259–267.

- 7 Nurpeissova A., Univ T.R. *Vith Ryskulov Readings: Socio-Economic Modernization of Kazakhstan under Conditions of Global Financial Instability*, Almaty, 2012, p. 1780–1796.
- 8 Mamrayeva D.G. *The Future of Science — 2015: Proceedings of the 3rd International Scientific Conference (April 23–25, 2015)*, 1 / Southwestern State University, Kursk, 2015, p. 173-176.
- 9 Amanbaevna T.G., Univ T.R. *Vith Ryskulov Readings: Socio-Economic Modernization of Kazakhstan under Conditions of Global Financial Instability*, 2012, p. 663–677.
- 10 Amirbekova D. *Proceedings of the 2nd International Conference on Innovation and Entrepreneurship* / Ribiere V., Worasinchai L., 2014, p. 257–263.
- 11 Aubakirova G. *Inzinerine Ekonomika-Engineering Economics*, 2014, 25, 2, p. 160–166.
- 12 The concept of innovation development of Kazakhstan till 2020, approved by the Decree of the President of the Republic of Kazakhstan from June 4, 2013 year № 579 // <http://akorda.kz> – official site of the President of the Republic of Kazakhstan (data of the accessed: 03.02.2016).
- 13 Law of the Republic of Kazakhstan «On the state support of industrial-innovative activity» on January 9, 2012 year № 534-IV // <http://akorda.kz> – official site of the President of the Republic of Kazakhstan (data of the accessed: 03.03.2016).
- 14 Information-analytical report for 2013 «About the development trends of innovation in the Republic of Kazakhstan and in the world» // www.natd.gov.kz – official web-site of the JSC «National Agency for Technological Development» (data of the accessed: 03.02.2016).
- 15 www.natd.gov.kz – official web-site of the JSC «National Agency for Technological Development» (data of the accessed: 08.02.2016).

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