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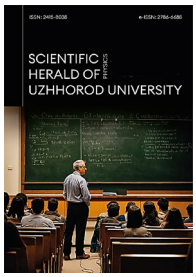

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Entrepreneurial universities of the Republic of Kazakhstan: The essence and features of development

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Abstract

Relevance. The relevance of the problem stated in the article is defined by the fact that entrepreneurial universities have become one of the most important condition for the development of an innovative economy these days. As the experience of developed countries shows, only the interaction of universities and business can cause rapid innovation processes in the economy, actualise research in the areas necessary for the economy, develop innovative products in demand by society and their rapid commercialisation. The development of entrepreneurial institutions in the Republic of Kazakhstan is vital for sustained economic growth. The reason for this is the need to develop an innovative economy in the country, which should contribute to bringing national enterprises to a new level of international competitiveness.

Purpose. The purpose of the article is to study the essence and features of the development of entrepreneurial universities in the Republic of Kazakhstan.

Methodology. The leading method to study this problem is empirical, namely, the study of the regulatory framework and the practice of creating entrepreneurial universities.

Results. As a result of the study, it was discovered that the entrepreneurial component in the activities of universities in Kazakhstan is underdeveloped, which reduces their competitiveness, especially at the international level. In addition, the interaction between business and universities is not well established. The main causes and consequences of this problem are considered, acceptable models of interaction are identified.

Conclusions. The need to create and develop entrepreneurial universities sets the task for the state to discover more considerable incentives that promote closer cooperation between universities and commercial organisations. This will

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allow solving issues not only of conducting and financing research, training more qualified personnel, but also issues of rapid commercialisation of innovations, which will entail the development of an innovative economy.

Keywords: entrepreneurial universities; entrepreneurial education; academic entrepreneurship; knowledge transfer; technology transfer.

Introduction

The concept of entrepreneurial universities is being discussed during the last quarter of century. It is generally recognised that globalisation and internationalisation have considerably influenced the transformation of most public institutions. Under the influence of global processes, the sphere of education and universities, in particular, have changed [1]. Universities have acquired new responsibilities and functions. This was caused by the following reasons: regional economic and social development; reduction of public funds spent on universities; development of the market of educational services. All the above required universities to develop their entrepreneurial activities and commercialise services, create enterprises based on knowledge. The purpose of the research is to study the essence of entrepreneurial universities and the features of their development in the Republic of Kazakhstan.

Nowadays, universities have taken a prominent place in economic development based on science and technology, and the entrepreneurial university is widely recognised as a key participant in competitiveness, economic growth, and wealth creation in the modern world [2]. To the traditional functions of universities: education and research, another one is added: the commercialisation of research results and their introduction into the economy. This new role of the university, on the one hand, implies a radical change in the internal organisation and activities of academic institutions [3], on the other hand, it can be fulfiled through various mechanisms, such as patents, licenses, research joint ventures, and the creation of affiliated academic companies [4].

Currently, "entrepreneurial university" is recognised as the main engine of self-development and innovation, an adequate response to achieving success in extremely unstable and unpredictable markets [5]. The model of an entrepreneurial university includes the following elements of organisational culture [6]: academic traditions; decision-making methods; research values, etc. Entrepreneurial universities are distinguished by the following main features: they are subjects of knowledge transfer; cooperate widely with commercial enterprises and other organisations; provide comprehensive support for innovation; form subsidiaries of commercial research and innovative companies; create business incubators and science parks.

Entrepreneurial universities perform the following functions in the context of globalisation [7]: they are subjects of knowledge and innovation; ensure the competitiveness of the national economy; stimulate economic growth; contribute to the creation of national wealth. Universities strive to position themselves as "entrepreneurial" and establish connections to considerably strengthen their influence in the regions and beyond, participating in such activities as licensing, dissemination, and "knowledge transfer" [8]. The role of universities has gone beyond technology transfer (for example, through patents, subsidiaries, and startups), and now covers more areas of activity, such as participation and provision of leadership to stimulate entrepreneurial thinking and business activity, especially in an innovative environment. Universities are becoming centres of modern entrepreneurship around the world [9].

Thus, an entrepreneurial university is a university that is capable of innovating, recognising, and creating opportunities, taking risks and responding to challenges. It sells its services in the field of knowledge and is a natural incubator that supports its researchers, technical specialists, and students in the creation of new enterprises [10]. It is increasingly recognised that entrepreneurial education itself will not be effective unless the learning paradigm changes and the educational institutions themselves become entrepreneurial. Universities can effectively become incubators of entrepreneurship and innovation only if they are engaged in entrepreneurship. Accordingly, entrepreneurial universities have emerged in recent years, and numerous measures have been taken to encourage universities to change [10].

Materials and Methods

The research is conducted based on studying the adopted regulatory documents of the Republic of Kazakhstan, designed to promote the commercialisation of innovations, practical developments of national and foreign universities, international university rankings, research on entrepreneurial universities. It is established that entrepreneurial universities are the fundamental link without which the development of the knowledge economy is impossible. The points of contact between business and universities are studied, which cause the need for interaction between these structures: namely, the training of highly qualified personnel capable of solving innovative tasks, research, the development of new products, the commercialisation of innovations. The models of interaction between universities and businesses that are most acceptable for the Republic of Kazakhstan, including venture enterprises, are considered. The article examines the most important issues of economics solved by entrepreneurial universities, which are generators and conductors of knowledge in the real sector of the economy, a source of highly qualified labour for business.

The following methods were used in the study:

- theoretical (analysis, synthesis, specification, generalisation, comparison);
- empirical (study of the regulatory framework, international rankings of universities of the Republic of Kazakhstan, and their competitiveness at the international level; study of statistical materials on entrepreneurial universities; evaluation of experience of universities in the field of their development as entrepreneurial universities; observation of the positive effects of entrepreneurial universities on the economy).

The research was based on theoretical materials, regulations, data from the global university ranking, practical developments, and results of activities in the field of development of entrepreneurial universities.

The study was conducted in three stages:

1. At the first stage, the study analysed theoretical provisions of the entrepreneurial university, established its essence, the factors of its development, its impact on the development of the innovative economy. The main features of the entrepreneurial university such as knowledge generation, the ability to commercialise innovations, close cooperation with business to name a few were highlighted. The influence of entrepreneurial universities on the development of an innovative economy was established. The problem was identified, the purpose and methods of research were highlighted, and the research plan developed.

2. At the second stage, the study analysed competitiveness of universities of the Republic of Kazakhstan at the international level based on the global university ranking. The entrepreneurial universities of Kazakhstan, the presence of an entrepreneurial component in the activities of universities, the problems of interaction between business and universities were studied. The reasons for the underdevelopment of the entrepreneurial component in the activities of universities of Kazakhstan were examined. Possible areas of development of entrepreneurial universities in Kazakhstan and ways to increase their competitiveness both at the national and international level, due to closer interaction with business, were identified. The most important models of interaction between business and universities were studied.

The regulations of the Republic of Kazakhstan are designated to provide a legal framework for the development of entrepreneurial universities. The importance of the role of entrepreneurial universities in the creation and commercialisation of innovative products and their impact on the development of the innovative economy is established. The way entrepreneurial universities influence the achievement of the country's economic development goals is identified. Therefore, we summarised the materials of various studies on the impact of entrepreneurial universities on innovative development. Moreover, the main problems of the development of entrepreneurial universities and possible solutions were identified.

3. At the third stage, the theoretical and practical conclusions were clarified, the results obtained were generalised and systematised.

Results and Discussion

In modern conditions, universities are changing drastically, their external and internal environment is being transformed. For the effectiveness of their activities, universities must adapt to these changes. Therefore, it is important to explore a new university model that has emerged as a result of rapid changes in various factors. In the Republic of Kazakhstan today, similarly to many countries, there is a search for the most effective model of an entrepreneurial university aimed at developing innovations and their introduction in the real economy and other spheres of public life. It is necessary to identify ways to transform existing universities into entrepreneurial ones that maximise participation in the following areas:

- innovative development;
- training of specialists in demand in the labour market;
- provision of personnel for projects in the field of research and innovative projects;
- provision of the innovative economy with managerial personnel of appropriate education.

Educational programmes should provide education in the field of entrepreneurship, namely, contribute to the development of the following qualities in students:

- behaviour that contributes to building a successful career;
- skills and competencies in the field of entrepreneurship;
- relevant economic, cultural, and social values.

Therewith, not only students who are future specialists obtain a benefit, but also the university itself, since positioning it in the market of educational services as an entrepreneurial one allows improving the image of the university, which gives it a considerable competitive advantage, and contributes to its further sustained development. A good image allows the university to attract more students and projects, including commercial ones, and, consequently, large amounts of income that can be allocated to development [11].

President of the Republic of Kazakhstan N. Nazarbayev notes that the most important and irreplaceable factor of economic growth is human capital, whereas the level of personnel training forms its quality [12]. In Kazakhstan, 130 universities perform educational activities, which receive 53.6 thousand grants from the state [13]. In the message of 2018, the President stated that the country has a need to carry out public spending on science, education, and healthcare in the amount of up to 10% of GDP [14]. According to the global ranking of higher education institutions (Figure 1), in total five universities of the Republic of Kazakhstan were included in it [15].

Rank	University	Score
577	Al-Farabi Kazakh National University	43.748
652	L.N. Gumilyov Eurasian National University	37.690
696	Suleyman Demirel University - Kazakhstan	33.771
828	EA Buketov Karaganda State University	17.835
862	Karaganda University of Kaspotrebsoyuz	6.506

Figure 1. The place of universities of the Republic of Kazakhstan in the global ranking of higher education institutions in 2021 (RUR, 2021)

Entrepreneurial universities are of paramount importance for the Republic of Kazakhstan for the following reasons [11]:

– in order for the country to grow economically and increase its international competitiveness, it is necessary to switch to an innovative model of economic development;

– public spending on education is not sufficient;

– the growth of the level of competition in the national and international markets of educational services;

– business requires highly qualified specialists, competitive, including at the international level;

– a modern university should not only create knowledge but also commercialise it;

– the need to increase international university rankings and the competitiveness of national universities at the international level;

– the necessity to develop entrepreneurial consciousness in society.

Hereinafter the study refers to the global ranking of higher education institutions (Round University Ranking (RUR)). The RUR rating in 2021 evaluates the effectiveness of 867 leading higher education institutions in the world by 20 indicators grouped into 4 key areas of university activity [17]: teaching; research; international activities; financial stability. The place of universities of the Republic of Kazakhstan in this rating in 2021 is shown in Figure 1.

Kazakh universities are in the second half of the ranking and are recognised and leading in the global education market. It is also noteworthy that in 2010 the rating included 4 universities, three of which left it, and the Al-Farabi Kazakh National University, which remained in the rating, decreased its position from 445 in 2010 to 577 in 2021, which indicates an increase in the competitiveness of foreign universities in the market of international educational services, compared with Kazakh ones. The reputation RUR rating (Figure 2) evaluates the effectiveness of more than 801 leading higher education institutions in the world by academic reputation in terms of the quality of teaching and the quality of research [16].

Rank	University	Score
512	L.N. Gumilyov Eurasian National University	38.273
606	Al-Farabi Kazakh National University	28.823
786	Shakarim University	6.332
786	EA Buketov Karaganda State University	6.332
786	Suleyman Demirel University - Kazakhstan	6.332

Figure 2. The place of universities of the Republic of Kazakhstan in the ranking of the reputation of higher education institutions in 2021 (RUR, 2020)

As evident from Figure 1, Kazakh universities are in the second half of this rating again. Therewith, L.N. Gumilyov Eurasian National University takes first place among Kazakh universities with a large margin (512th place in the ranking), Al-Farabi Kazakh National University takes second place (606th place), and three universities share third place: Shakarim University, E.A Buketov Karaganda State University, and Suleyman Demirel University (all three universities were ranked 786th out of 801) [17]. In 2010, this rating included four Kazakh universities, three of which left it, the remaining one was Al-Farabi Kazakh National University.

The academic rating (Figure 3) [18] evaluates academic staff, their research productivity and citation, academic reputation in terms of research quality. For that purpose, 10 indicators are used with a share of 10% for each indicator compared to 20 indicators in the RUR World University Rankings [19].

Rank	University	Score
615	L.N. Gumilyov Eurasian National University	43.248
697	Al-Farabi Kazakh National University	34.756
699	Shakarim University	34.657
723	Suleyman Demirel University - Kazakhstan	31.288
786	EA Buketov Karaganda State University	23.403

Figure 3. The place of universities of the Republic of Kazakhstan in the academic ranking of higher education institutions in 2021

According to the academic rating, all five leading Kazakh universities are in the last third of the distribution. Moreover, according to the previous rating, in 2010 four Kazakh universities were listed in the academic rating, of which only Al-Farabi University remained.

The RUR subject rating evaluates the effectiveness of more than 801 leading higher educational institutions in the world in 6 broad subject areas: humanities, life sciences, medical sciences, natural sciences, technical sciences, social sciences. The number of universities varies from 505 medical sciences to 669 technical sciences. All universities are evaluated according to the same 20 indicators and 4 key areas of university activity as RUR World University Rankings [19]. The specified rating exists of two types:

– natural sciences (figure 4);
– technical sciences (Figure 5).

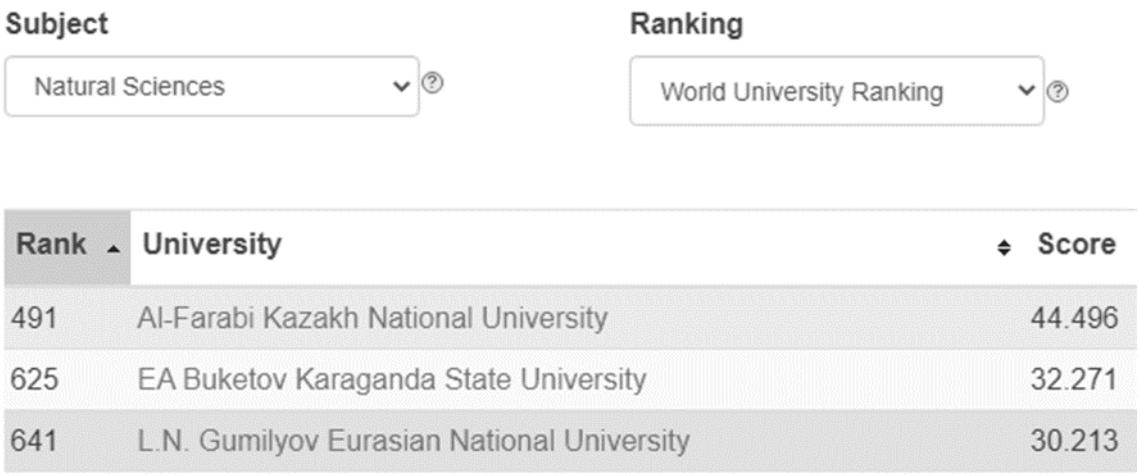
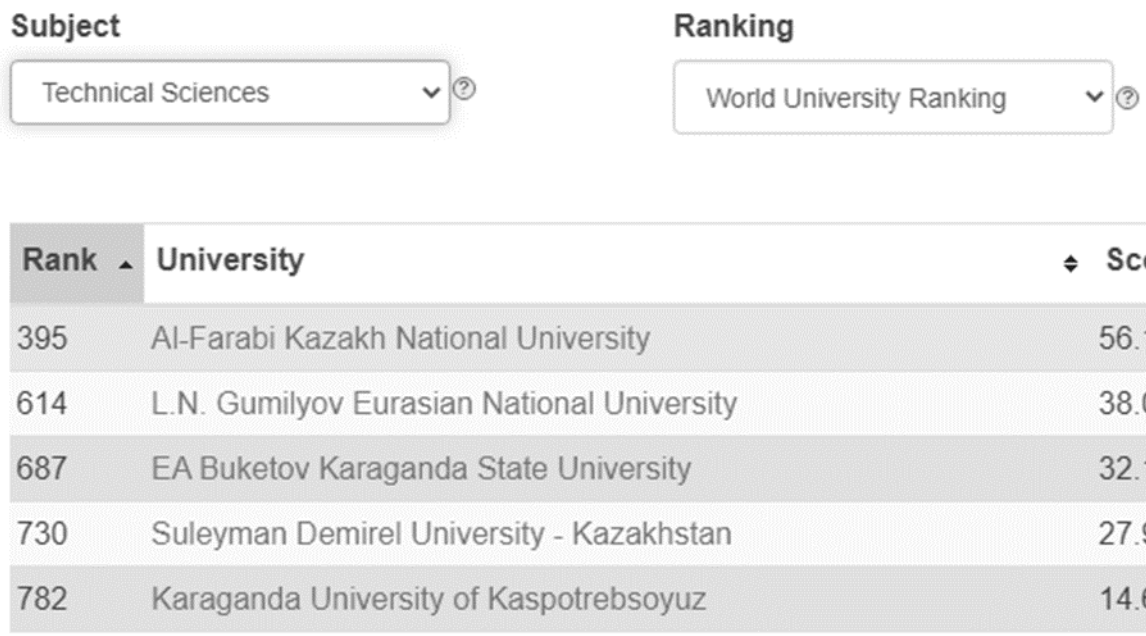


Figure 4. The place of universities of the Republic of Kazakhstan in the subject ranking of higher educational institutions in natural sciences in 2021 (RUR, 2021)

As can be observed in Figure 4, according to the academic rating in the field of natural sciences, only three Kazakh universities were included, whereas in technical sciences (Figure 5), all five universities were included in the rating.



Rank	University	Score
395	Al-Farabi Kazakh National University	56.127
614	L.N. Gumilyov Eurasian National University	38.045
687	EA Buketov Karaganda State University	32.171
730	Suleyman Demirel University - Kazakhstan	27.983
782	Karaganda University of Kaspotrebsoyuz	14.611

Figure 5. The place of universities of the Republic of Kazakhstan in the subject ranking of higher educational institutions in technical sciences in 2021 (RUR, 2021)

From the analysis of the place of Kazakh universities in international rankings, it can be concluded that an insufficient number of universities are competitive at the international level, which has not changed over the years.

The most important step towards the creation of entrepreneurial universities in Kazakhstan was the adoption in 2015 of the Law "On the commercialisation of the results of scientific and (or) technological activities" [20], which developed a system for financing innovative projects introduced in production. In addition, this regulation contributes to the transition of grants and research programmes in accordance with the programmes of industrial and innovative development of the country.

Studies of universities conducted in Kazakhstan have shown that Kazakh universities attempt to position themselves as entrepreneurial universities. However, the law does not define the issues of the implementation of the entrepreneurial university model in Kazakhstan [13]. To develop a business environment and transition to entrepreneurial university, Kazakh universities solve the following tasks [13]:

– the creation, within the framework of the internal university environment, of conditions for the development of innovation and entrepreneurship in all areas of university work;

– increase in the volume and structure of financing, wide use of financial management tools to ensure development in the necessary area;

– the creation of separate small enterprises for the introduction of innovative projects;

– development of an entrepreneurial type corporate culture;

– improvement of entrepreneurial qualities and skills among the staff and students of the university.

– University Development Strategy;

– The concept of the development of the entrepreneurial model of the university;

– Regulations on commercialisation centres;

– Regulations on business incubators and others.

Internal regulations of universities include such provisions as:

– university autonomy:

– the presence of an entrepreneurial component in the organisational culture of the university, as a guarantor of the development of an entrepreneurial university;

– inclusion of an entrepreneurial component in educational programmes;

– development of students' entrepreneurial skills.

About one-third of Kazakh universities currently have specialised departments in their structure, the function of which is to perform activities to improve entrepreneurial culture [13].

A fairly large number of startups are being created at Kazakh universities to promote services in the field of research, to fulfil the entrepreneurial and innovative potential of students and teaching staff. Startups also contribute to easier obtaining of project financing, including at the expense of funds and infrastructure of state support for small and medium-sized businesses. In addition to startups, coworking spaces are being created for students and teaching staff to cooperate with existing entrepreneurs and other economic entities [21; 22]. Furthermore, universities of Kazakhstan hold various seminars, conferences, advanced training courses, implement various other educational programmes in the field of entrepreneurship and the development of entrepreneurial culture. The most important task facing modern universities is the development of entrepreneurial thinking among university staff, including teaching staff. Entrepreneurial thinking differs considerably from the standard one, and it is formed among the population through the influence of the external environment in which a person lives and education. Entrepreneurial education should be received not only by specialists of an economic

profile but also in other fields of activity. Access to specialised information resources, including foreign and international ones, is necessary for the development of entrepreneurial education [23; 24]. The information resources of entrepreneurial education include:

– library collections;

– business incubators;

– materials of leading successful companies and internships in them;

– specialised databases on the Internet;

– online educational platforms in the field of entrepreneurship;

– courses and educational programmes;

– specialised mobile applications, etc.

The development of entrepreneurial education in Kazakh universities entails the following positive aspects:

– students and staff have become more interested in commercialising their technological developments;

– the number of university graduates opening their own business after graduation is growing;

– productive cooperation between universities and business;

– growth in the number of students startups;

– support of student projects not only by universities but also by enterprises and government organisations;

– the growth of the share of employment of university graduates.

The implementation of educational programmes on entrepreneurship at universities has led to the growth of students' competence in the field of doing business, the growth of their legal and financial literacy, professional growth. For better interaction of students with the entrepreneurial environment, universities regularly hold meetings with representatives of various industrial enterprises, where young specialists present their developments with the aim of their subsequent commercialisation and introduction into the real economy [25-27]. Universities that position themselves as "entrepreneurial" develop projects for existing business entities, which contributes to the development of an innovative economy and the financial independence of universities from the state. Nevertheless, the Republic of Kazakhstan provides targeted state support for the university innovation and entrepreneurial infrastructure, which stimulates innovative development at the regional level, the introduction of new technologies, the production of innovative products through small enterprises of universities, and as a result, the creation of new jobs.

The link between the university and business is the innovative and entrepreneurial infrastructure of the university. The creation and development of this infrastructure provide the following opportunities: the organisation of national high-tech production; the introduction of technological and other innovative developments of national researchers; attracting investment in innovative investment projects at any stage of their development; effective interaction of the university and the real economy. However, there is still a problem of insufficient funding, which hinders the acceleration of the development of entrepreneurial universities in the Republic of Kazakhstan [13; 28]. There are also problems in the development of entrepreneurial education itself, which is the reason for the slow development of entrepreneurial universities. Training programmes in the field of entrepreneurship can be provided by [21]: state universities with appropriate departments, departments specialising in education in the field of entrepreneurship; training centres of the employment service; licensed non-state educational institutions. The experience of developed countries shows that entrepreneurial education should start from childhood by introducing entrepreneurial disciplines into school curricula. It is also necessary to introduce entrepreneurial disciplines into the educational programmes of colleges and universities, including in non-economic specialities.

The next serious problem is the considerable gap between the theory of entrepreneurial education and practical business activities in Kazakhstan. Educational programmes in the field of entrepreneurship should primarily focus on the development of applied skills in the student, which will later be used in practice. For the above-mentioned purposes, close direct relationships between educational institutions and actually operating enterprises are necessary. Entrepreneurial education should focus on the development of such competencies among students that will allow them to successfully engage in entrepreneurial activity in the future [29; 30].

The role of universities in economic and other spheres of life is increasing all over the world, as a result of which the following components of university life are being transformed: the organisational culture, mission and perception of the university; the organisational structure; the educational process; the outcome of universities – thinking and qualification skills of graduates are obtained faster each year. The unification of science and education has become the basis for the successful economic development of many countries and the growth of their competitiveness in international markets [31-33]. Such integration is caused by the following features of modern real economic systems, especially developed countries: the growth of knowledge-intensive production; reduction of the life cycle of goods; reduction of the life cycle of production equipment; the need for sustained development of personnel, lifelong training; decrease in the amount of time from invention to the introduction of the product into mass production.

The current state of the real economy requires the unification of science, education, and business, they are no longer capable of working effectively separately, without having direct close ties with each other. Only when all three components are in a closely related system, rapid development and introduction of innovations, and the transition to an innovative economy are possible [34; 35].

It is necessary to promote the unification of science, education, and business at the state level. The relationships between these actors should cover a wide range of issues and be long-term. Due to the large number of areas covered by the interaction of science, education, and business, a fairly large number of models of such interaction has been established in world practice. All leading universities in the international market of educational services are closely connected with the largest industrial corporations. Laboratories of such universities develop technologies for specifically formulated business tasks. As a result, there is an "innovation pipeline", which is the most important

driving force for the development of an innovative economy. Many universities conduct research in several areas at once [29].

In modern innovation practice, the following models of interaction between business and universities have been established [29]:

– research universities conduct research up to the stage of a technical prototype;

– technoparks are a structure that generates enterprises established by universities and other research organisations to introduce innovations;

– business incubators are structural divisions of universities that support projects of young specialists and researchers from development to implementation;

– technopolises are technological complexes that comprise a full range of enterprises, from research laboratories to large companies engaged in the development, introduction, and implementation of innovative products;

– innovative and entrepreneurial universities are universities of the knowledge economy, one of the main tasks of which is the production and introduction of innovations into the real economy and the life of society.

One of the most successful models of interaction between universities and business is the technopark. Venture business is developing based on technoparks, which contributes to the rapid commercialisation of innovations and the development of an innovative economy. The most important condition for the development of venture business in the economy is the availability of a highly qualified workforce. Venture business has the following advantages that contribute to innovative development: flexibility of the business system; mobility – the ability to quickly adapt to changing conditions; the ability to quickly change the area of search, to recognise and implement successful new ideas in a timely manner, to maximise the potential of researchers; protection from losses at the beginning of the innovation process. Nevertheless, the institutional venture capital market in the Republic of Kazakhstan is underdeveloped. Part of the reason for this is the lack of necessary legal provisions for the organisation of venture funds. As a result, there are no clearly established rules for the relationship between the participants of such funds. There is also insufficient state incentives for the creation and operation of such funds: tax incentives, subsidies, etc. Thus, it is obvious that the main driving force of the knowledge economy is entrepreneurial universities. This is evidenced by the multilateral experience of developed countries.

The integration of science, education, and business are not fast enough. Most frequently, research organisations develop an innovative product or technology and then attempt to sell it without any requests from the business sector. The state order is also not related to the development of innovations for business needs [36; 37]. Therefore, there is still a problem of the relationship between universities and business, and, consequently, of the commercialisation of innovation and the development of entrepreneurial universities.

Conclusions

At present, entrepreneurial universities are one of the main basic elements of innovative economic development. An entrepreneurial university is considered a higher educational institution that not only provides educational services on a commercial basis and in accordance with the needs of the market but also, in cooperation with business, conducts research, designs innovative products, and commercialises them by introducing them into production in the real economy.

Currently, entrepreneurial universities are the most prestigious and in demand in the market of educational services throughout the world. To date, only five universities of the Republic of Kazakhstan are included in the global ranking of higher education institutions. Therefore, it is necessary to continue improving the competitiveness of the country's universities. The most important task is to establish comprehensive close cooperation between universities and businesses. It refers not only to the training of highly qualified personnel by universities for the real economy but also to conducting joint research, developing new products, and introducing them into production.

Business is still not sufficiently connected with universities, meanwhile, there is some dissatisfaction with the quality of training of young professionals in the business environment. To eliminate this problem, closer cooperation between commercial enterprises and universities is required. It is desirable that a young specialist, during studying at the university, becomes familiar with the specific features of the organisation in which they plan on working. It is also necessary to improve cooperation between business and universities in the field of research and applied development, the most important principle of which will be that the customer is "business". In that way, universities will be capable of aiming their research at the sphere of activity necessary for practical economic activity, such a system also allows attracting financial resources for investments in research not only from the state budget but also from real enterprises interested in innovative developments. The participation of the state is also required since it should set the area for the development of the innovation system, provide state support for research projects in priority areas of activity.

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Conflict of Interest

None.

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Підприємницькі університети Республіки Казахстан: Сутність та особливості розвитку

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Анотація

Актуальність. Актуальність проблеми, викладеної в статті, визначається тим, що підприємницькі університети стали однією з найважливіших умов розвитку інноваційної економіки на сучасному етапі. Як показує досвід розвинених країн, лише взаємодія університетів і бізнесу може спричинити швидкі інноваційні процеси в економіці, актуалізувати дослідження в необхідних для економіки напрямах, розробку затребуваних суспільством інноваційних продуктів та їх швидку комерціалізацію. Розвиток підприємницьких інститутів у Республіці Казахстан є життєво важливим для сталого економічного зростання. Причиною цього є необхідність розвитку інноваційної економіки в країні, що має сприяти виведенню національних підприємств на новий рівень міжнародної конкурентоспроможності.

Мета. Метою статті є дослідження сутності та особливостей розвитку підприємницьких університетів у Республіці Казахстан.

Методологія. Провідним методом дослідження даної проблеми є емпіричний, а саме вивчення нормативно-правової бази та практики створення підприємницьких університетів.

Результати. У результаті дослідження було виявлено, що підприємницька складова в діяльності університетів Казахстану недостатньо розвинена, що знижує їх конкурентоспроможність, особливо на міжнародному рівні. Крім того, взаємодія між бізнесом та університетами не є добре налагодженою. Розглянуто основні причини та наслідки цієї проблеми, визначено прийнятні моделі взаємодії.

Висновки. Необхідність створення та розвитку підприємницьких університетів ставить перед державою завдання знайти більш вагомі стимули, які сприятимуть більш тісній співпраці між університетами та комерційними організаціями. Це дозволить вирішити питання не тільки проведення та фінансування наукових досліджень, підготовки більш кваліфікованих кадрів, а й питання швидкої комерціалізації інновацій, що потягне за собою розвиток інноваційної економіки.

Ключові слова: підприємницькі університети; підприємницька освіта; академічне підприємництво; трансфер знань; трансфер технологій.