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**U. Khassenova**Eurasian National University named after L. N. Gumilyov, Astana, Kazakhstan.  
E-mail: khassenova91@gmail.com**THE CONCEPT OF «ENTREPRENEURIAL UNIVERSITY»  
AND THE MODEL OF DEVELOPMENT**

**Abstract.** In the article the definitions of the entrepreneurship and entrepreneurial university were explored, the peculiarities of the entrepreneurial activities in higher education institutions (HEI) were considered, the definition of entrepreneurial university on the basis of different references was determined. The classification of the model of entrepreneurial university is presented in research. The purpose of the article is to analyze the definition of the essence of the concept «entrepreneurial university» and develop a model of it. Methods of collecting and processing information for this article: to research, analyze the sources, to compare and generalize the material. Also, the main conclusions on the definition of the concept of entrepreneurial university were described. A model of the entrepreneurial university was developed, which is characterized by four main activities: scientific, educational, entrepreneurial and digital. Materials from various foreign sources, examples of various models of an entrepreneurial institution were used in this research, included some recommendations for Kazakhstan's higher education system.

**Keywords:** university, higher education institutions, entrepreneurship, business activity, entrepreneurial university, education system, university transformation.

Today, we are at the root of the formation of a new type of educational institution in Kazakhstan as an entrepreneurial university. This phenomenon essentially is global and occurs in many countries, where the reflection is obviously on the importance of the university in the socio-economic development of the country.

As society develops, people's attitudes toward educational organizations are changed. However, the speed of these changes is different and regard to various structures and organizations. The business environment is probably the quickest to transform. As for the education system, on the whole, it is very conservative, and its subsystem, as universities, especially.

Undoubtedly, this issue is up-to-date in developing countries, because the tasks that facing the entrepreneurial university are more complex. Naturally, this is understood by all subjects of this process - from teachers to legislators who making decisions. At the same time, universities are not considered only as a labor-training tool.

The main problem facing modern universities is the ever widening «gap» between cultures. In the early 1960s, the publication of the report of C. Snow «Two Cultures», which emphasized the danger of mutual hostility between representatives of humanitarian and natural science cultures, now there is a need of the new report that could be called «Three Cultures». To the confrontation between the humanitarian and natural science cultures described by Snow can be added a hostile misunderstanding between the representatives of these cultures to business culture. What the role should the university play in this regard in overcoming this truly civilizational gap between cultures? [1]

In our opinion, one of the important ideas concerning the transformation of a modern university which is aimed at ensuring a better correspondence of the results of its activities to the requirements of the time is the concept of an *entrepreneurial university*. Thus, the question of understanding the model of an entrepreneurial university becomes very relevant.

The purpose of the article is to analyze the definition of the essence of the concept «entrepreneurial university» and develop a model of it. Methods of collecting and processing information for this article: to research, analyze the sources, to compare and generalize the material.

In order to analyze the concept of «entrepreneurial university» more thoroughly, it is necessary to understand what «entrepreneurship» is.

The definition «entrepreneurship» was introduced into scientific circulation by J. Schumpeter. The term tried to define in many different ways. Such features of entrepreneurship as ingenuity, perseverance in achieving goals, willingness to take risks, have become almost universally accepted. Since the publication of the famous Schumpeter's work «The Theory of Economic Development» (1911), there have been written hundreds of articles and books devoted to the phenomenon of entrepreneurship. In our opinion, the most capacious formulation of entrepreneurship was given by professor Howard Stevenson, who worked at Harvard Business School: «Entrepreneurship is a quest for opportunities beyond the resources currently controlled». [2], [3], [4]

In order to carry out similar searches, it is necessary to possess all the above qualities. This definition is especially positive because it is not limited to the sphere of business: according to Stevenson, entrepreneurship is possible in virtually all spheres of human activity.

The exploration of sources reflecting the facts and realities of the term «entrepreneurial university» is used in a lot of works published since the mid-1990s. However, there is still no clear definition of this concept. Most authors simply describe the characteristics of an entrepreneurial university.

Nevertheless, a significant contribution to the formation of the concept of an entrepreneurial university was made by such scientists as J. Ropke [5], S.V. Golubev [6], L.V. Kobzeva [7], S.R. Filonovich, G. N. Konstantinov [8], B.R. Clark [9], E.V. Dolzhenkova, A.G. Mokronosov, I.N. Mavrina [10], A.O. Grudzinsky [11], G.L. Ovsyannikova [12], A.A. Sidorova, N.A. Rummyantsev [13], H. Etzkowitz [20] and others.

In the opinion of J. Ropke, the following requirements are put forward to the entrepreneurial university:

- the university should demonstrate entrepreneurial behavior as an organization;
- university members - teachers, students, employees - should be entrepreneurs;
- the interaction between the university and the environment should lead to a «structural interface» between the university and the region [5].

Since the mid-1990s, many scientists have proven that science and universities are undergoing changes [14]. The challenges of the world economy have led to the fact that the university has become an institution that is losing its traditional characteristics, whereas higher education institutions become involved in the global economy of knowledge and must comply with the national innovation policy of the country [15], [16].

Clark is one of the most famous developers of the concept under consideration. In his book «Creating Entrepreneurial Universities», the notion of «entrepreneurial university» appears, which later played an important role in the development of the modern concept of management in education [17].

By Clark's definition, the **entrepreneurial university is an institution actively seeking ways to reduce its dependence on the state. These universities set a goal: to train, research and develop such tasks that will lead to results.**

Based on his research and describing the experience of five European universities, the author formulated the first generalized concept of a modern, at that time, entrepreneurial university. This concept has proved its theoretical and applied value by virtue of a new dimension in the academic community. Clark identifies five elements of university behavior and their transformation into an entrepreneurial institution:

- a discretionary funding base;
- a strengthened steering core;
- an enhanced development periphery;
- a stimulated academic heartland;
- an integrated entrepreneurial culture.

A critical comprehension of this model helps to draw the following conclusion, Clark does not give step-by-step instructions on how to use the presented five elements to transform the university into an entrepreneurial organization. Also, the Clark's model assumes independence from the state and is not aimed at the development of the region, but this is not ruled out. The main goal of his concept is to support and help HEIs during the transformation period to become a sustainable entrepreneurial organization in

the market [9]. Nevertheless, Clark's work created the concept of an entrepreneurial university and outlined aspects related to the development of an entrepreneurial university.

One of the most modern concepts is the model of the entrepreneurial university, presented by Harvard University scientists: J. Angell and E. Dangerfield to designate an educational institution whose main purpose is material income [18].

So, before entrepreneurial universities are performing the following tasks, as an entrepreneurial university:

- offers ready-made ideas and entrepreneurship programs and prepares for the future creation of their business;
- develops entrepreneurial thinking among students from different specialties;
- serves as an entrepreneurial institution, creates business incubators, technology parks and also attracts students and graduates to work, thereby helping them to create their own business [19].

So, paramount in this model of the entrepreneurial university is the modification of the traditional model as a transition from public financing to multi-channel financing, based on its own search for additional sources of income.

From the point of view of researcher H-STAR Institute of Stanford University Henry Etzkowitz in the book «Triple Spiral. Universities - enterprises - the state. Innovations in action» the following definition is presented: **«entrepreneurial university» is the key to the rise of industry, the creation of new businesses and jobs, economic stability.**

The main idea of the «triple spiral» theory is the dynamic development of relations between universities, government and enterprises for the effective development of new industries and solving problems in existing ones. One of the key roles is assigned to universities, which not only serve as a teaching institution, but also focus on accumulating knowledge. This model assumes that entrepreneurial universities are the centers which creating new technologies, and they are simultaneously working on scientific research [20].

The developed model is more open and describes concrete steps, if Clark's model is generalized, then Etzkowitz talks about specific elements of university transformation - in entrepreneurial. Also, the main difference between these models is that the Clark model does not take into account the development of the region and does not seek to do so in its concept, although in practice universities have worked with the business community most often of a specific region, and the Etzkowitz's model is aimed at the development of the region.

Nevertheless, the notion of «entrepreneurial university» as an innovative concept was often supplemented and refined in the process of self-assessment by universities in the course of their transformation and development.

The analysis of various approaches to the definition of the essence of the concept of «entrepreneurial university» allows us to conclude that often the entrepreneurial function of universities is associated with the commercialization of the results of its scientific research, that is, with the realization of the so-called «The third mission». Significant role in the activity of such an educational institution is played by entrepreneurial culture, management, marketing, education crediting.

Thus, according to the presented definitions, a university that shows entrepreneurial activity:

- diversifies the sources of financing;
- reduces its institutional dependence on public and state institutions;
- conducts training of competitive professionals with creative entrepreneurial thinking, capable of implementing innovative projects in various fields of activity;
- carries out the production of new knowledge and their capitalization;
- has a flexible organizational structure capable of quickly adapting to changes in the requirements of the society and the market;
- encourages the creation of new enterprises by teachers and students in order to commercialize the results of scientific research;
- realizes a full cycle of reproduction of new knowledge (from generation of ideas to creation of prototypes of innovations);
- promotes the integration of education, science, business and thereby creates prerequisites for the country's innovative development;
- is the center of development of an innovative territorial cluster [21].

Despite the significant advantages that the transition to the entrepreneurial university model provides, most scientists are cautiously concerned with this process. They have a question, what for such a higher educational institution in the first place: business or teaching?

Entrepreneurial activity carries hidden threats to the institution itself. This is due to the fact that teachers, using its resources, can pay more attention to the implementation of their own entrepreneurial projects, while neglecting their own direct responsibilities - teaching students [22].

In fact, a contradiction arises between the traditional values of teaching and the need for teachers to develop entrepreneurial skills in order to earn additional funds for the university [22]. At the same time, it should be noted that there is no universal model of the entrepreneurial university, as well as the ways of its formation.

An entrepreneurial university or an entrepreneur-teacher is a completely new concept for Kazakhstan, from our point of view. This tactic is successfully implemented abroad, where many teachers successfully realize their potential in the entrepreneurial sphere and simultaneously contribute to the development of this or that environment. Material income and social recognition are an important component of our lives as human beings, starting from the well-known pyramid, developed by the psychologist Maslow [23].

Unfortunately, in Kazakhstan, speaking about the situation in educational institutions, the social component is higher, where the teacher receives more moral satisfaction from recognizing their merits by colleagues and students than material. However, following the Maslow pyramid, the need for food, shelter, protection, which is often associated with money, are basic needs, accordingly the entrepreneurial concept in the university has a high chance of success in connection with encouraging a person's basic desire to receive material rewards for his/her work and in a worthy measure.

In progressive countries, any innovation, research, and discovery are encouraged not only in words, but also materially. This, of course, stimulates the entrepreneurial activity of teachers, increases their motivation to create, something to study and discover. This also contributes to their authority, since any student can not only listen to a lecture about an item, but also get acquainted with the specific work or research conducted by this teacher.

So, in our opinion, **an entrepreneurial university is a university that successfully performs educational, scientific, innovative and digital activities, organizes academic entrepreneurship, combining interaction between employers and graduates, exporting knowledge and technology of this university through teachers-entrepreneurs to solve socio-economic tasks of society.**

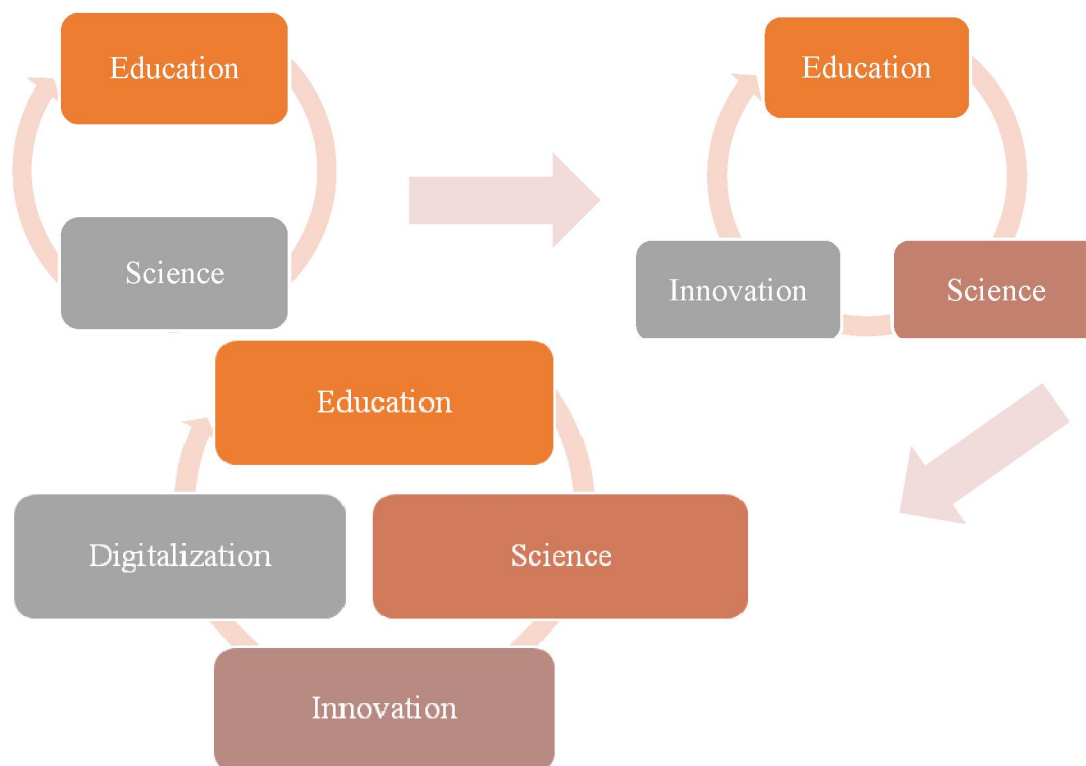
Of course, for the establishment and stabilization of such a phenomenon, greater support is required from the university and the state. The process of teaching requires certain modifications in order to encourage the entrepreneurial development of the university teacher in a positive way. Often, teachers may simply not have enough time for entrepreneurial activity, but more often for any activity because of unnecessary paperwork, which is a pure formality, but takes up a significant amount of time that could be used constructively.

To fill the system of higher education with the desired dynamic - dynamics of the entrepreneurial university and to strengthen the links between industry and education to stimulate a practice-oriented and project approach in education, it is important to include an entrepreneurial university in the typology of universities in Kazakhstan. This will require the integration of this institution into the existing classification of Kazakhstan universities, which in the future will determine its place in the structure of higher education in Kazakhstan.

This will require the integration of this institution into the existing classification of Kazakhstan universities, which in the future will determine its place in the structure of higher education in Kazakhstan.

In connection with global changes in our society, we can see the following trend in the transformation of universities. For example, universities until 2015 drew attention and built a policy of synergy between science and education, the so-called «Universities 2.0». The requirements of modern economy force universities to develop as «University 3.0», this is the cooperation of science, education, and innovation. Soon, the demands of the future economy will be aimed at creating a new form of the university.

Having studied the research of foreign scientists and the modern vision of the role of universities, we propose a model of an entrepreneurial university, which includes the development of science, education, innovation (entrepreneurship) and digitalization (figure).



Model of entrepreneurial university

This model of the entrepreneurial university is characterized by four main activities: scientific, educational, entrepreneurial and digital. At the same time, regardless of how entrepreneurial activity manifests itself, entrepreneurial universities combine teaching, research, and entrepreneurial activities, receive income from it, and also act as an important participant in innovative processes in the country. Implementing the model of the entrepreneurial university, it is necessary to take into account all its «pluses» and «minuses», as well as institutional features of the country and the possibilities of the university itself. At the same time, an important component of their successful activity is the availability of highly qualified managers, as well as teachers who have an entrepreneurial vision, entrepreneurial idea, creative thinking, strive for success, ready to take risks and are not afraid of change.

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**У. Хасенова**

Л. Н. Гумилев атындағы Еуразия ұлттық университеті, Астана, Қазақстан

### **«КӘСІПКЕРЛІК УНИВЕРСИТЕТІ» ТҰЖЫРЫМДАМАСЫ ЖӘНЕ ОНЫ ҚҰРУ МОДЕЛІ**

**Аннотация.** Мақала, оқыған көздері негізінде бизнес мектебінің анықтау бойынша құрылған жоғары оқу орындарының (ЖОО), кәсіпкерлік қызметті салу, ерекшеліктерін кәсіпкерлік және кәсіпкерлік университетінің анықтамасын танысты. Зертте кәсіпкерлік университет үлгілерінің классификациясы берілген. Зерттеудің мақсаты - «Кәсіпкерлік университет» тұжырымдамасын мәнін анықтау, талдау және моделін әзірлеу. осы баптың үшін ақпаратты жинау және өңдеу әдістері: зерттеу, көздерін талдау, материалды салыстыру және синтез. кәсіпкерлік университет моделі және кәсіпкерлік университетінің тұжырымдамасын анықтау бойынша жасалады негізгі тұжырымдар. Ғылыми, білім беру, бизнес және сандық - кәсіпкерлік университет моделі төрт негізгі қызмет сипатталады, ол әзірленді. Зерттеуде әртүрлі шетелдік көздерден алынған материалдар пайдаланылды, кәсіпкерлік жоғары оқу орнының түрлі модельдерінің мысалдары. Қазақстанда жоғары білім аулаға қатысты ұсыныстар бар.

**Түйін сөздер:** университеттер, жоғары оқу орындары, кәсіпкерлік, кәсіпкерлік қызмет, кәсіпкерлік университеті, білім беру жүйесі, университет трансформациясы.

**У. Хасенова**

Евразийский национальный университет им. Л. Н. Гумилева, Астана, Казахстан

### **ПОНЯТИЕ «ПРЕДПРИНИМАТЕЛЬСКИЙ УНИВЕРСИТЕТ» И МОДЕЛЬ ЕГО ПОСТРОЕНИЯ**

**Аннотация.** В статье изучены определения предпринимательства и предпринимательского университета, рассмотрены особенности построения предпринимательской деятельности высших учебных заведений (ВУЗ), сформировано определение предпринимательского вуза на основе изученных источников. В исследовании представлены классификации моделей предпринимательского университета. Цель исследования – анализ определения сущности понятия «предпринимательский университет» и разработка модели. Методы сбора и обработки информации для данной статьи: изучение, анализ источников, сравнение и обобщение материала. Описана модель предпринимательского вуза и составлены основные выводы по определению понятия предпринимательский университет. Была разработана модель предпринимательского университета, которая характеризуется четырьмя основными видами деятельности: научной, образовательной, предпринимательской и цифровой. В исследовании использовались материалы из разных зарубежных источников, примеры различных моделей предпринимательского вуза. Включены некоторые рекомендации для системы высшего образования Казахстана

**Ключевые слова:** университет, высшие учебные заведения, предпринимательство, предпринимательская деятельность, предпринимательский университет, система образования, трансформация университета.

#### **Information about the author:**

Khassenova Unzeilya – Eurasian national university named after L. N. Gumilyov, postgraduate student, e-mail: [khassenova91@gmail.com](mailto:khassenova91@gmail.com).