

## The Entrepreneurial Education in the Republic of kazakhstan: from Theory to Concept

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### Abstract

This article provides information about the current situation of entrepreneurial education in Kazakhstan. The understanding of entrepreneurial education in Kazakhstan is lacking, so the present article aims to help us in the efforts of finding directions for its development. The strategy of the research, used for this article and conducted in 2018, was divided into the three stages. Data collection for the research consisted of a survey with fourteen open questions. Contextual analysis of the responses was used to process the data. The research insights are presented with examples of different universities of Kazakhstan. In general, seven basic points constitute a conclusion paragraph of this study.

*Keywords:* education, entrepreneurial education, innovation.

### 1. Introduction

The Republic of Kazakhstan has adopted long-term goals for integrating the country into the global market and to become one of the top 30 most developed countries of the world [1]. These goals influenced all economic sectors of the state including education.

The First President of the Republic of Kazakhstan, Nursultan Nazarbayev, during his governance paid special attention to the development of human capital and underlined this as a fundamental factor for the success of any country [2]. So, high-quality human capital directly depends on the high-quality education system. Also, there is a necessity to increase financial expenses for education, science and healthcare from all sources to 10% of GDP [3].

Currently, there are 131 universities in Kazakhstan, the state educational order is 53 thousand grants annually for 96 thousand of school graduates.

The recent international reports on the economic competitiveness and the investment attractiveness of regions highlight the existence of the deficiencies in the training of qualified personnel. Thus, in accordance with the Report of the World Economic Forum on Global Competitiveness (2017-2018), lack and low qualification of personnel is indicated by one of the major business problems in many developing countries, including Kazakhstan [4].

At the same time, personnel who are capable of ensuring the growth and competitiveness of the economy are specialists with entrepreneurial and managerial competencies. Therefore, the development of an entrepreneurial education system is of paramount importance, since it is the segment of the educational market

that is responsible for the training of entrepreneurial and managerial personnel [5].

The goal of this article is to answer the research question «Does entrepreneurial education take place in the country's higher education system?». Turning to international experience, there are various theories and concepts for the development of business education and business universities.

For example, B.Clark, one of the fundamental developers of the considered concept. In his book «Creating Entrepreneurial Universities», Clark describes the concept of the «entrepreneurial university» and provides five elements on the transformation of the university and the interaction of universities with business and the state in different regions [6].

A similar opinion can be found in the «triple helix» theory proposed by Henry Etzkowitz [7]. The basic idea of this theory is that the dynamic development of relations between universities, government and enterprises contribute to the effective development of new industries. It is important to mention, that following the theory, the key role in this process is played by universities that not only perform the functions of a training institute, but also focus on the accumulation of knowledge. This model assumes that entrepreneurial universities are the centers for the development of new technologies, which in parallel work on research [7].

According to the European Commission, entrepreneurial education can positively influence local labor markets and the economy [8]. Investments in entrepreneurial education are considered as highly profitable ones in Europe. The same studies show that students who study entrepreneurship are three to six times more likely to run their business in the future.

However, there are other opinions regarding the concept of entrepreneurial education. So, the question arises: What is the goal of this education: business development or teaching? Moreover, there are some concerns regarding this among many scholars.

For example, Russian scholar Yu. B. Rubin believes that entrepreneurial activity carries hidden threats. This is due to the fact that teachers, using the resources of the university, can pay more attention to the implementation of their own entrepreneurial projects, while neglecting their direct responsibilities - teaching students [9].

This paper presents the opinion that the prerogative of a modern university is to become a source of new knowledge and technology, including education, science, entrepreneurship and digitalization. Coming from this idea, we can conclude that it is necessary to develop entrepreneurial skills among future specialists, regardless of their specialization.

It is vital to remember that the business creates new work places and provides a great share of the population with a sufficient income. Kazakhstan is already moving in this direction. For example, a group of experts in the area of education has made some amendments to the Law on Education. As a result, universities have gained academic, managerial and financial independence. One of the main innovations of this bill is to provide universities with the right to create endowment funds [10].

Thus, the process of rethinking the role of higher education institutions has begun. To explore the current situation of entrepreneurial education in Kazakhstan more thoroughly, the following section presents a survey developed for the investigation of this issue

## 2. Methodology

The strategy of the research consists of three stages. The research was held in 2018:

1. sending letters to universities for voluntary participation in the survey;
2. data collection, advising universities on the questionnaire and applications;
3. formation of the research results and recommendations. It is crucial to note that these recommendations were sent to the Ministry of education and science of the Republic of Kazakhstan.

Data processing lasted for 2 months. The research was conducted on the voluntary basis and involved 70 Kazakhstani universities (or 53% of HEIs), including 10 national, 28 state, 13 joint-stock, 1 international and 18 private educational organizations (Fig 1).

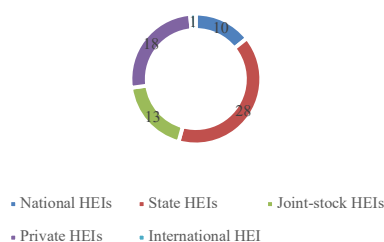


Fig. 1. The number of universities participating in the survey, by their status

The range of respondents included the staff of the relevant units. In our research, we did not single out which of the employees answered the questions, as it was important for us to understand the concept of entrepreneurial education at the universities. In order to preserve confidentiality as well as following the aim of this research to understand the concept of entrepreneurial education at the university, this study did not distinguish responses according to staff positions.

The research method consisted in a survey with 14 open questions (Appendix).

This type of survey has many advantages [11] and does not limit the respondents in their answers. It allows getting in the most relevant and plausible information regarding the development of entrepreneurial education in Kazakhstan.

The results were processed using the method of contextual analysis [12]. In particular, the most frequently met words and phrases were analyzed and semantically similar items were grouped.

## 3. Results

So, with regard to the institutional environment at the universities by provided answers, it can be concluded that almost all responded universities are seeking to position themselves as the entrepreneurial type of universities. However, it should be noted that there is no legislative framework to ensure the implementation of the model of the entrepreneurial university in Kazakhstan.

Nevertheless, universities are developing the internal and external environment of the business university, setting a number of tasks. Among them there are:

- formation of entrepreneurial and innovation ecosystem at the university;
- expansion of financial sources and management tools and their use for own development;
- creation of small innovative enterprises, implementation of promising research projects, etc.;
- formation of entrepreneurial creative corporate culture for the development of dual training in the context of the development of entrepreneurial education;
- formation of students, faculty and staff entrepreneurial culture and entrepreneurial skills, etc.

The second question in the questionnaire was about the availability of official regulations of the university, which is reflected in any model of development of the entrepreneurial university. Almost all the respondents indicated such documents as the Development Strategy of the university, the concept of development of the entrepreneurial model of the university, regulations on the centers of commercialization, regulations on functioning business incubators at universities and etc.

All these documents focus on the recent bill adopted by the Head of state on the expansion of academic and managerial independence of universities.

The fundamental points in the normative documents of universities were:

- the autonomy of universities and integrated entrepreneurial culture (perception by management and

leading professors of innovation) as essential conditions for successful and sustainable development of entrepreneurial university;

- development of educational programs based on professional standards, taking into account the formation of entrepreneurial skills of students;
- development of students' entrepreneurial skills, competencies, generation of business knowledge, etc.

Speaking about the presence of specialized structural units in the university involved in the promotion of entrepreneurial education policy, it can be concluded that 31% of universities have specific centers/departments of technology commercialization, which are responsible for carrying out activities to improve the entrepreneurial culture.

Various start-ups are opened at the universities in order to promote business ideas in the field of research services. Besides, they are aimed at the disclosure of innovative and entrepreneurial potential of students and faculty through the formation and development of competencies that are necessary to create start-up projects. These projects are expected to transform into successful businesses in the future, expanding access of start-up projects to sources of financing and infrastructure support for small and medium-sized businesses.

What is more, according to the research results, universities create co-working centers for students where they have a great opportunity of working together with the potential employers and successful businessmen.

The next question in the questionnaire underlined the topic of students' involvement in the business environment, as well as the presence of university business incubators and start-up laboratories, where students can demonstrate their entrepreneurial skills and thinking.

The majority of respondents (57%) responded positively about the presence of business incubators and start-up laboratories. Also, 18 universities are planning to open such units. Relying on this, it can be concluded that responded universities seek to develop an entrepreneurial culture (Fig 2).

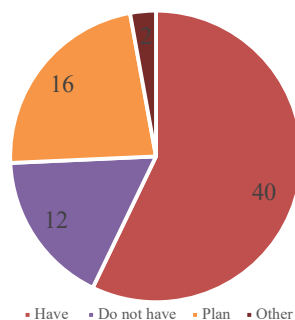


Fig 2. Presence of business incubators and start-up laboratories, by number of universities

One of the most important issues was the involvement of faculty and staff of the university in the process of learning entrepreneurship. In most cases, respondents expressed positively to the question of training seminars and training for teachers. Many universities cooperate with JSC «Science Foundation» that annually conducts training with the involvement of successful entrepreneurs.

In addition, on the basis of Almaty Management University (AlmaU), teachers from Kazakhstan have an opportunity to participate in a training program on the basics of entrepreneurship. On June 6, 2018, within the framework of the «Ecosystem of student entrepreneurship» project an 8-hour Strategic session was held for the top management of the universities and faculty involved in the development of entrepreneurial education by the center for innovation and entrepreneurship development of AlmaU.

L. N. Gumilyov Eurasian National University (ENU) organizes the training of teaching staff on the CASTLE programme in the framework of the Erasmus+ project. On the basis of the Youth business incubator, 37 start-up projects and more than 100 jobs were created.

The next question was about entrepreneurial thinking among the staff and teachers of the universities.

Entrepreneurial thinking differs from traditional original thinking and approaches to decision-making and other processes. The population of Kazakhstan has a new mindset formed through training, education and the environment in which it lives.

The respondents provided information on the need to conduct courses and training on the basics of entrepreneurship, training programs, the creation of educational and methodical base, organization of a series of seminars and legal and economic support of start-up projects.

The next question in the questionnaire was «What programs of entrepreneurial education are implemented in university?»

90% of the responding organizations have already introduced the discipline entitled «Basics of entrepreneurship» for students of 1 and 2 courses. For example, referring to ENU's response, the course named «Fundamentals of entrepreneurship» is read in all specialties of the university, except economic, in order to form students' readiness for entrepreneurial activity. Thus, students-non-economists when graduating, have a theoretical foundation of their specialties and future profession from the perspective of «economic human», a modern, flexible specialist of the 21<sup>st</sup> century.

There are also specialized disciplines in various specialties related to the entrepreneurship. For instance, medical universities teach the discipline entitled «Entrepreneurship in healthcare», in law specialties students pass «Entrepreneurial law» discipline, in technical universities, there are disciplines in engineering entrepreneurship, and etc.

The students of management, economy, state and local governance and study «Organization of business», «Economics», «Project Management» disciplines. Universities pay particular attention to the formation and development of entrepreneurial thinking and psychology of students by offering such course as «Psychology of leadership».

In light of the current trend of digitalization of higher education, universities are developing such an educational program as «IT-entrepreneurship». For example, Karaganda economy university has already conducted recruitment of applicants for the 2018-2019 academic year.

Then, there was a question regarding the availability of educational resources (internal and external) for students to develop entrepreneurial knowledge and skills. According to the received data, universities provide both internal and external sources of information.

The internal resources of universities include library funds with the available literature on entrepreneurship, created business incubators for the development of future businessmen, various courses (including online) for the development of entrepreneurial skills.

External resources include a variety of Internet resources, international citation databases (Web of Science, Scopus, RSCI), various online platforms for MOOC training, as well as developed mobile applications for IOS and Android.

The next question was about the changes that have occurred as a result of the introduction of entrepreneurial education. As a result of the introduction of entrepreneurial education in universities of Kazakhstan, the interest of students and faculty in projects of commercialization of the results of scientific and technical activities has significantly increased. Also, the result of high-quality training on entrepreneurial disciplines can be considered an increase in the proportion of graduates who have created their own enterprises and actively cooperate with the university in terms of the development of entrepreneurial education. Besides, the number of student start-up projects, which are actively supported not only by universities but also by government agencies and various enterprises, has increased. Finally, the percentage of graduates' employment has increased.

Among the positive changes in the responded universities, it is also worth noting the introduction of newly developed educational programs on entrepreneurship, the introduction of additional disciplines for the entire contingent of students in universities. University students have improved their professional competence, legal literacy, choice of materials, tools and technologies for their processing. No negative changes were underlined by the respondents concerning this question.

The next question asked respondents to provide some information about the entrepreneurial influence, the achievement of the goals of entrepreneurial activity of universities at different levels.

Analyzing the answers of universities, it can be noted that meetings of scientists, students and faculty with representatives of industrial enterprises of different regions of the country are organized for the development of the entrepreneurial activity of universities on the regular basis, sometimes universities presented ready projects for implementation in the real sector of the economy.

Positioning themselves as the «Entrepreneurial Universities», universities are in charge of projects for representatives of business, developing an innovation economy, and at the same time, commercialization of intellectual property. As a result, universities become less state-dependent.

The general development of regions through the introduction of new technologies, the creation of knowledge-intensive and innovative products, institutions on the basis of universities of small innovative enterprises, the emergence of new jobs— these and other measures are implemented in the frames of the presence of targeted state support of innovation and entrepreneurial infrastructure of Kazakhstani universities.

Innovation and entrepreneurship infrastructure is a link between the university and business. The formation of a full-fledged innovation infrastructure will contribute to the organization of a high-tech production based on the development of domestic science; attraction of the

investments for financing innovative projects at any stage. Last but not least, innovative infrastructure will help to establish optimal interaction between the universities, industry and business.

Finally, the last question for the universities-respondents was about the existing barriers to the introduction of the model of entrepreneurial education.

Universities were offered a table with a list of some obstacles and a scale of answers (from 1 to 5), where 1 – “easy to overcome the barrier”, 5 – “the most difficult barrier to overcome”. Respondents evaluated each of the presented barriers according to this scale. One of the main implications reflects that there is a lack of financial resources in the implementation of the business model.

Content barrier noted by the HEIs is mainly as a medium can be overcome. This applies to staff, their entrepreneurial skills, the development of educational programs on entrepreneurship, etc.

#### **4. Conclusion**

In general, analyzing the responses of the universities to the survey, it is possible to make seven concluding points:

1. Most of the surveyed universities declare themselves entrepreneurial universities. They have set several tasks in the development and implementation of entrepreneurial education.

2. All the responded universities have rudiments or basics of entrepreneurial activities reflected in the legal documents (strategy of the universities, the concept of development of commercialization centers, regulations on business incubators etc.).

3. More than half of the investigated universities operate or plan to open specialized structural units for the development and support of students, faculty and staff involved in the promotion of entrepreneurial policy. There are business incubators, technology commercialization center, co-working centers functioning at the universities.

4. The level of involvement of faculty and students in the entrepreneurial activities of universities is very high. Teachers participate in various training, seminars to improve entrepreneurial skills and competencies. Students launch a lot of start-up projects, implementing their business ideas.

5. Universities provide various types of support to the students and teachers for the development and promotion of start-up projects. They also invite successful businessmen for training and reading lectures.

6. New courses in entrepreneurship are being introduced, new educational programs are being developed in order to improve entrepreneurial competencies and skills of students and prepare future businessmen.

7. There is a number of positive changes with the introduction of the model of entrepreneurial education (the interest of students and faculty on commercialization projects, increasing the number of start-up projects among students, increasing the employment of graduates).

This study makes a significant contribution to the investigation of the development of entrepreneurial education in one of the Central Asian countries – Kazakhstan. For a developing country, it is essential to develop civil society by educating an active, intelligent and modern University graduate.

Further work in this direction will help to update the issue of entrepreneurial education and as a result, will bring many innovations to a significant improvement in the quality of human capital of the Republic of Kazakhstan.

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## Appendix

### Questionnaire for the assessment of the entrepreneurial potential of the Kazakhstani universities

Question number	Direction	Question
1.	Institutional environment	How did the university transform its culture to create an ecosystem that supports the entrepreneurship of students, staff, faculty, alumni?
2.	Regulatory documents	What regulatory documents reflect the new model of «entrepreneurial university» (Strategies, Quality Objectives, and other documents).
3.	Organizational structure	What departments at the university are involved in promoting the business education policy?
4.	Involvement of students	How do students and graduates demonstrate their ability to apply entrepreneurial thinking and skills during their time at the university? Do business incubators and start-up laboratories function at the university?
5.	The involvement of teachers and staff in the process of teaching entrepreneurship	Have training sessions been conducted for teachers? Are business practitioners involved in the educational process? How many start-ups have faculty and staff members created?
6.	Innovation and entrepreneurship of employees	How do employees demonstrate innovation and professional growth in the work of planning and implementing university business activities?
7.	Educational activities	What programs of entrepreneurial education are implemented at the university, on what course, in what educational programmes?
8.	Resources	Describe the educational resources available to students for the development of entrepreneurial education: internal and external.
9.	HEIs support	What forms of support for entrepreneurial education of students operate in your university?
10.	Changes	What effective changes have occurred with the introduction of business education in your university?
11.	Entrepreneurial influence	To what extent have the objectives of the university's business been achieved at the regional and national levels?
12.	Obstacles	What are the obstacles to the introduction of a model of «Entrepreneurial education» in the country?
13.	Influence of an entrepreneurial university	To what extent and how has the university experience influenced policy and practice in a wider environment?
14.	Membership in the community	Are you a member of the Association of Business Universities of Kazakhstan, created with the support of the MES RK and the National Chamber of Entrepreneurs «Atameken»?