

Formation of Entrepreneurial Culture of Students

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Abstract – The article is devoted to the basic development tendencies in the sphere of higher education; it is specifying the notion of “entrepreneurial university” trends and forms of entrepreneurial culture at higher educational institutions as well. The other items under consideration here refer to specifics and competitiveness of higher educational institutions as business entities, quality and efficiency of their business activity, and to the scope and framework of entrepreneurial university. The appropriate conclusion suggests the importance of business activity development by Kazakhstani higher educational institutions. The authors conceptualized a model of forming of entrepreneurial culture at the university and present the observation data gained from the students’ opinion survey concerning business environment at the leading regional university. These research analysis data allow understanding of the levels and development indexes of entrepreneurial culture in the university environment, and indicating the following: values orientation, pro-business thinking, entrepreneurial vigour and maturity, entrepreneurial proactive attitude.

Keywords – entrepreneurial university, entrepreneurial culture, conceptual model, business environment, entrepreneurial development centre.

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1. Introduction

High rate of growth of demand and supply of educational, chiefly, special professional services, reaching 10-15 times annually in emerging world, now makes educational industry a rapid developing one, with promising potential and future-proof forms of economic activity. Global marketization influence higher education institutions environments, therefore, stimulates their striving for active market-oriented policy, self-reliance and efficiency [1], [2], [3].

The specific feature of economic relations existing between the system of higher education and the society is caused by the ambivalent nature of learning and educational services, which, from one hand, can be referred to public goods, while from the other hand, contributing to creative professional personal development these services can be considered, according to home and foreign experts, as a private benefit. This means that both, the public and the private characters of the higher education system need balanced, not contradictive development following from a well-run market and governmental regulatory activity over the high professional education sector, serving as embodiment of efficient high school. Summing up what has been said the tendencies of higher education institutions functioning under the current conditions are evident, as follows [4]:

1. Development of private sector in education industry, and as a result of it, an increased competitive climate for learning and educational services market;
2. Decline of level of the state financing;
3. Structural switch in the learning and educational demands;
4. Integration with the international academia.

Hot issue problems caused by the above described tendencies in the higher education market become the present time new challenges requiring new strategies for high school development in the form of entrepreneurship activity and establishment of new entrepreneurial type of higher education institutions.

A hindsight study of university mission, which is about one thousand years old, proves its double

function, as an educative mission and a research one. The two missions naturally complement each other suggesting their indivisibility ever since. The last thirty years development of a new mission of university, the entrepreneurial one, is widely discussed, because universities today are highly important for national economies not only as elite training centers or sources of manpower but from the point of added value generation, intellectual product commercialization and business initiation, e.g. opening startups, spinoffs and so on, as well [5].

The mission of entrepreneurial university is not contradictory to the ideas of research and entrepreneurial models, since it includes both, a research and an educational university model. At the same time this mission is promising from the possibility point of view new competences and functions.

Among the first researchers, who made an attempt to establish a scientific rationale for the notion “entrepreneurial university” is an American scientist and educationalist Berton R. Clark, who studied thoroughly the system of higher education and proposed a conceptual foundation of entrepreneurial university. According to Clark the distinctive feature of this model of university is decisiveness about commercializing the production of their research knowledge and extension or diffusion of it [6]. From the scientist’ viewpoint the key element of entrepreneurial university’s efficiency is the managerial style conducive to flexible and strategic interaction with the environments.

The significant traits of “entrepreneurial university” according to Clark are, as follows:

1. Enhancing the role of the university’s management core;
2. Business networking with organizations outside the university;
3. Expansion of financing sources;
4. Motivation of university sub branches’ business activity;
5. Development of integrative entrepreneurial culture.

Universities, which have accepted business managerial style and practice wide inner and outer networking in order to enhance their functioning and statutory activities, can be referred to as entrepreneurial ones. According to expert P. Schulze two development ways of entrepreneurial university are possible [7]: first, training of highly qualified business-minded specialists capable to private business undertaking in future and, secondly, business activity of higher education institutions themselves, i.e. students and university staff mainstreaming into entrepreneurship activities with

all kinds of information-consultancy and resource support included.

At present we have a reasonable background for market-oriented higher education institutions to develop their business activities. However, progressing technical science knowledge stipulates new demands and interaction forms between the suppliers learning and educational services and their customers, and, thereupon, mainstreaming of pro-business orientation of universities’ activities. Latter-day universities are expected to have their own aggregate supply of competitive, diverse and combinative products and services. Marketing them they become, thence, kin to profit-generating production entities – concluded Maria and Vadim [8].

Considering the conception of entrepreneurial university, we may state that it is an institute capable to cope with current higher education problems attributable to the “knowledge society” transition period. Beginning from middle of 1990s, there appear lots of publications, the authors of which made attempts to reveal insights into the notion of “entrepreneurial university”. However, no clear notion is given yet. Meanwhile, the term “entrepreneurial university” is used to denote a high educational institution or university, which either seeks for their fund rising, or uses innovative educational technologies, or alternatively interacts with industries and introduces their technological developments in production. Such a variety of opinions, however, embarrass understanding of the notion “entrepreneurial university” and hinders operationalization of the term, and as a result, leads to the situation when universities following self-promotion purposes erroneously position themselves as entrepreneurial ones.

Some authors [9], [10], [11] simply describe characteristics of entrepreneurial university. For instance, Ropke advances requests to the universities pretending to be declared as entrepreneurial one, which are, as follows [12]:

- Maintaining entrepreneurial spirit at universities;
- University members, the staff and students, have to manifest entrepreneurship abilities;
- Interaction of universities and the environments is to evolve into regional-scale “structural associative relations”.

According to Clark, who conceptualized entrepreneurial university features, as decisiveness about commercializing generation and extension or diffusion of their knowledge, the members of such universities find commercialization not perilous for academic traditions and quality of knowledge. This implicitly suggests diversification of university sourcing. The scientist stresses the importance of the

managerial style promoting flexible and strategically associative interaction with the environment, as the key element of entrepreneurial university's efficiency.

Of course, one cannot say that the descriptions above do not correspond to important elements of an entrepreneurial university. However, we believe, that simplification of the notion till it is understood just as commercialization or any other traditionally known entrepreneurship form leads to constriction of the problem and impedes solution of difficulties now exist in higher education industry described above. Therefore, we find it sounding to hark back to the notion "entrepreneurial university".

We can take the definition of entrepreneurship proposed by G. Stivenson and based upon it consider the general entrepreneurial potential of university. Every university needs some resources to settle their tasks, and deficient resources restrain the potentialities of universities to solve the tasks. Thus, using the definition by Stivenson we can say that an entrepreneurial university is always seeking for possibility to go out of the restraining limits.

Bearing in mind that only the activities that go out of any limits are the key elements for universities efficiency assumed, that a truly entrepreneurial university has to overcome constraints in three spheres:

- Knowledge generation through continuous development of new research methods and exploring new spheres, or new problems in earlier explored spheres;
- In teaching: development of innovative teaching methods and modifying the content of teaching material with the newest scientific and practical achievements;
- Practical applicability of new knowledge through different forms of interaction with the society.
- Thus, the term "entrepreneurial university" should refer to such postsecondary institutions, whose systematic efforts to overcome constraints in three spheres are: knowledge generation, teaching and practical applicability of new knowledge through initiating new activities, internal environment transformation and interaction with external environment modifying [13].

2. Method

According to Kazakhstani scientist Kozhakhmetov [14] the staff's time-sheet in entrepreneurial university is expected to be dense, as it includes research studies, teaching and networking with business environment. Besides, the appropriate climate, wage and moral incentives are important motivating factors to be taken into consideration

here. The scientist equates the essentiality of entrepreneurial university with the conception of "triple spiral" proposed by a well-known scientist Itzkowitz. The kernel of this conception lies in the following: the three constituent parts of our economy, as universities, business and the state work together, so that closely related they can ensure innovations and economic growth.

The scientist believes that "entrepreneurial university" is the keystone to industry growing, new productions and employment generating, it is moving towards economic stability as well. Foreign countries have wide usage of universities research potential for industrial development. The students and the staff of entrepreneurial universities are involved in entrepreneurship activities, partaking in creating new productions and companies, and the graduates, who are engaged in or do their own business keep in touch with their alma-mater. This gives the universities one more opportunity to accumulate their assets using them for research activities. Through commercialization and applied scientific research activities entrepreneurial universities can become the pivot in the above mentioned "triple spiral".

In view of this nowadays universities, they are more than simply "sources of manpower" for innovative economies but they themselves can perform as creators of innovations at different stages. Entrepreneurial universities have to become "Incubators" for future businessmen among students and university staffs. Besides, they can solve technical or commercial problems and task the social ones, hence, conducting parallel activities, as teaching, research and business ones.

We need to use our universities' scientific-research potential, providing the possibilities for university staffs and students to commercialize the results of their research studies, establish a new production or a start-up. The graduates and former colleagues now engaged in pure business activities are expected to keep in touch with their alma-maters and universities and provide all kind of support, as finance, material, or sharing their business experience. According to Kozhakhmetov through commercialization and applied scientific research activities entrepreneurial universities can become the pivot in the above mentioned "triple spiral".

Today mainstreaming of small business sector, which is more adaptive and dynamic in reacting to environmental changes can highly promote innovative economic potential development, as well as commercialization of research studies and innovative technologies introduction. Based upon foreign countries experience universities now play the leading role in business activities generating, since they concentrate all the research, educative and energy powers.

Young people are the most active and creative members of the society and capable to partake with high efficiency in economic development of a country or a region. Young people are more open to innovative improvements and rarely hesitate to assume risks. The students in abroad are potential businessmen and a link between scientists and investors.

Mainstreaming of universities as a factor of young businessmen training is reflected in the following: now Kazakhstani society has woken up to the fact of necessary small business activities development by our universities, and this understanding gives rise to new business sub branches and complex innovative enterprises appearing within their university areas. Our scientists now pay attention to youth's (students') entrepreneurship and entrepreneurial culture within their university environments. However, the problem arises in the lack of efficient business teaching techniques and methods.

All the students' endeavors concerning their business plans and activities, as well as their desire to take an active part in business events, their keen interest to this kind of activity, when a unique combination of entrepreneurship, research and technical abilities can result in an interesting form, are to be supported.

Our contemporary researchers stress high importance of personal entrepreneurship influencing the behavior of a person, as well as the role of business-minded person and motivation of business activities playing in academic process [15]. Entrepreneurial behavior reflects the everyday behavior of a person and therefore it is closely connected with the personality, qualification of the personality and willingness to follow the business behavior style.

According to our scientist the social norms, culture and university expectations are the keystone determinant of business activity. The universities with developed entrepreneurial traditions will have higher commercialization results and high index of business activity.

Based upon the studies analysis the level of entrepreneurial culture development in universities is possible on the parameters, as follows [16]:

1. The level of students' oriented values (a share of students, whose values are connected with non-material goods, as self-realization, independence, freedom and prestige activity, i.e. connecting their business with spiritual values);
2. The level of business-minded and business-oriented students (a share of students well-disposed to entrepreneurship);
3. The level of students' entrepreneurial energy (a share of students, who take an active part in entrepreneurial projects and competitions);
4. The level of students' entrepreneurial maturity (a share of students, who are conscious about undertaking their own business while study);
5. The level of students' business activity (a share of students, who have their own business.

It can raise doubt whether it is necessary to increase the level of students' business activity, since this work and university studies sometimes impede each other. But as for increasing the level of students' entrepreneurial energy there is no doubt, because it is possible to acquire additional competences concerning creativity and business acumen improvement. And this is important in any sphere of activity.

High level of business-oriented students and the level of their entrepreneurial maturity make preconditions for business activity level growth. Therefore, universities have to develop entrepreneurial opportunities, including the system of training and support of entrepreneurship, project and business events, and entrepreneurial infrastructure as well.

Universities' business environment is an important factor influencing students' entrepreneurial culture development.

Considering the research papers dealing with psychological and pedagogical aspects of business activity [17], one can draw a definition of entrepreneurial competences, as an integrative capability of a person to create, organize and realize innovative projects socially and economically advantageous, as they can ensure satisfaction with personality's self-realization. Motivation for project activity can be described as the keystone of entrepreneurial culture, for development of socio-economic relations in business, education industry and other spheres.

Author suggests the following features of personal entrepreneurial culture, conditioned by passion to business occupation [18]:

- entrepreneurship as a talent to anticipation, forecasting, "professional feel";
- self-sufficiency and outside-the-box thinking ability;
- novelty in goals achievement;
- decisiveness and inventiveness or quick wittedness;
- businesslike character and pragmatism;
- high proficiency level of informational technologies;
- self-discipline and exacting attitude towards others;
- team-work skill;
- responsibility and promise implementing.

Entrepreneurial culture is not formed as a result of mechanical accumulation of knowledge and skills.

They can only be formed, when we pay attention to complex development of all personal aspects, as cognitive abilities and emotions, and they reveal themselves in aggregate competences: cultural, professional, personal.

The constituents of entrepreneurial culture are the components, as follows:

- economic: market law awareness, professionalism, future-proof activities orientation; careful attitude towards instruments and so on;
- social: the skill in constructive networking with different state and private structures, concurrent entities, as well as the skill to use social mechanisms for new resources raising; sincere interest to improve as own, so surrounding life; knowing of possessing social roles, developed communicative skills, corporatism air; managerial abilities and so on;
- psychological: creative thinking; distinctive entrepreneurial ideas and plans, motivation for success achievement; psychological mental ballast, decisiveness and so on;
- ethical: human dignity, conscientiousness, desire of honest profit gaining; charity activity and so on;
- pedagogical: respect to people, awareness of human life absolute value, willingness to promote conditions for subordinates' creative potentials realization, stimuli for competitiveness and so on.

Formation of students' entrepreneurial culture can be realized in process of the following tasks accomplishment:

- economic knowledge acquiring; creative thinking, creativity, tolerance and communicative skills development;
- entrepreneurial traits of character development: clearness of purpose, consistency, moderation, decisiveness, initiatively and self-dependence, self-discipline and confidence;
- formation of keystone competences related to entrepreneurial culture.

The last research papers present a conceptual model (Figure 1), which is the union of four basic aspects conducive to formation of entrepreneurial culture according to Anderson and Warren [19]:

- entrepreneurial motivation;
- psychological competences;
- social competences;
- managerial competences.

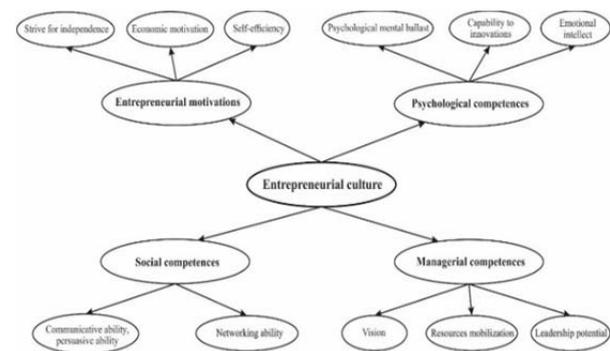


Figure 1. Conceptual model of entrepreneurial culture forming

With the benefit of theoretical and practical hindsight we know, that motive is the key element for entrepreneurial culture formation.

Entrepreneurial motives are those which motivate people to business activities. Motivation is the greatest factor for achieving success in business activity.

According to literary sources there are three basic factors responsible for entrepreneurial motivation:

- strive for independence and self-dependence (preference should be given to independent tasks accomplishment and independent decisions making);
- economic motivation (interest in economic benefit, with the view of economic value of activity);
- self-efficiency (personal believe in capability of successful entrepreneurial purposes achievement and self-realization possibility).

There is a wide set of characteristics, which can be included into psychological competences, as they are peculiar to business acumen people. This group of psychological competences includes individual character traits distinguished for business activity:

- potentiality to innovative solutions (capability to partake in inventions development processes, resulting to appearance and introduction of new products, processes and services);
- emotional intellect (the ability to express emotions and use them in thinking, understanding and using emotions in disputes, emotions controlling skill, and at the same time the skill to operate emotions in process of business communication);
- psychological mental ballast (ability to adaptive behavior and to cope with stress situation, difficulties connected with risks and failing projects) and others.

Since business activity requires social environment the business entities have to be capable to interact with their environments. Therefore, social competences, which can effect upon business

activity, are important factors for successful business, and these competences include the following:

- communicability and persuasive ability (capability to influence the attitudes and human behavior for the benefit of success promoting climate);
- networking capability (the ability to develop communication (networking) with business entities and those, who can provide necessary resources for business project accomplishment and development).

Managerial competences include the abilities, as follows:

- vision, i.e. the ability to visualize business objectives, tasks and strategies realization (due to intuitive reasoning and holistic approach);
- mobilization of resources, i.e. the ability to accumulate resources necessary for entrepreneurial activity (financial and material);
- leadership potentiality, i.e. the ability of human resources mobilization and management according to business activity vision and with the purposes of business tasks accomplishment.

Development of communicative ability, search of required information and resources skill, leadership ability, managerial and other skills and abilities important as social and managerial competences should be among the main tasks connected with formation of entrepreneurial culture of future specialists.

3. Results and Discussion

The university conducts different arrangements for the purpose of students' entrepreneurship development. These arrangements are: business events devoted to popularizing Entrepreneurship education and own business-project development; master-classes and conference-talks with prosperous personalities, businessmen and business-coaches; business trainings helpful for own business undertaking; business games, round-table meetings, sometimes business events connected with commercialization of innovative developments and products marketing.

The Center provides also all possible support to students' startup-projects all-over the Caspian Sea region. This support can be rendered at any development stage of business-projects: beginning from the idea development to commercialization of ready products. The startups can refer to the sphere of business services, consulting, edTech, IT media, e-commerce sector and agricultural sector.

Business events of the Center are, as follow:

1. National competition of startup projects "Startup Bolashak (Future)"
2. Youth entrepreneurship forums

3. Youth case-championships
4. Speed Dating with businessmen and business-coaches partaking
5. Trainings
6. Business educative courses

The aim of these business events is to render support to individual students or business-teams to identify their own business interest and niche. An important thing in all these activities, we think, is connected with professional assessments of students' startup-projects, the possibility to get an expert support, or have a talk or meeting with investors, and finally a possibility to conclude a contract.

Monitoring of students' entrepreneurial culture has been carried out at the Yessenov University.

The questionnaire list included questions aimed at identifying the degree of students' possessing with the information concerning business events and support measures the university arrange today for the youth entrepreneurship benefit, as well as the questions related to career expectations of students and potential sources for their business activity, its motives and values.

Besides that, the questionnaire included the questions and the answers helped to reveal students' attitude to entrepreneurship. They were the questions connected with influence of business activity on national economy development, governmental support efficiency to business activity, ethical aspects of entrepreneurship and the role of the university in development of students' active pro-business position.

The questionnaire covered 1215 students including undergraduate students (bachelors) and graduate students of humanitarian (58.7 %) and natural-science (41.3 %) disciplines of the Yessenov University who took part.

The results of the questionnaire showed insufficient students' knowledge ability about business events and youth entrepreneurship support measures realized today by the university. The question is posed this way: "Do you possess the information about business events and the support measures the university arrange today to students' entrepreneurship?"

Only 37 % of the Yessenov University students know about the university's activities related to youth entrepreneurship development. 51 % of respondents do not know about training and other business events. Other 12 % of students said they were uncomfortable for answering. The achieved results show that promotion of youth's entrepreneurship requires more efforts from the part of the organization team of the business event. On the whole the students showed a rather active position, as according to the questionnaire 39 % of respondents participate in business events in their cities (business games, competitions of startups, master-classes, forums and so on); 25 % of this amount attend 1-2 business events a year; 11 % of

students attend 3-5 business events, and 5 % of students attend more than 5 business events a year. 11 % participants of business events have been distinguished and awarded with special diplomas/certificates, project grants, and etc.

The questionnaire results concerning students' interest to entrepreneurship development revealed 69 % of respondents, who showed interest to business occupation and they want once to change their career for private business (Figure 2).

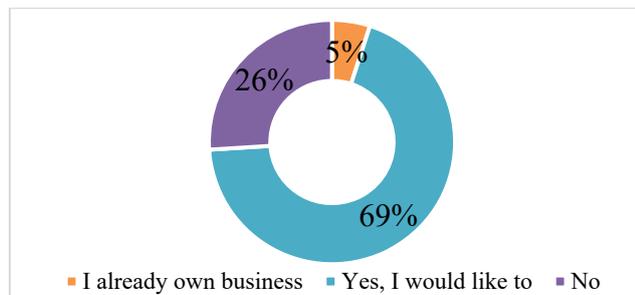


Figure 2. Answers of the respondents to the question: *Would you like to go into business at a certain stage of your career?*

Other respondents want to work in the budget (state) sector, or as a salaried employee in a production company or other sphere.

Among the factors against business occupation the respondents' answers were, as follows: lack of startup capital (41 %), absence of in-born ability and competences to entrepreneurship and entrepreneurship (43 %), lack of appropriate knowledge and practical skills (35 %) and insecurity of this activity (risk, fear, debts) (25 %) and so on.

Students can draw the ideas for their business activity from their hobbies or interests (48 % respondents), or from university knowledge (lectures, seminars and trainings, 35 %), the results of research and applied studies carried out jointly with the university research staff (20 %), or they may be the ideas of their friends and relatives.

Motivation of students' business activity can stem from independence and self-dependence of their activity planning and decisions taking, as well as from the possibility of high profit gaining (55 % respondents). For 49 % respondents the value of business activity is connected with the possibility of self-realization. 29 % respondents connect this value with the possibility of new interesting contacts and meetings.

The values orientation analysis regarding the youth's business activity shows that today the government and the higher education institutions should make joint efforts aimed at development of entrepreneurial culture and forming positive motivation.

Different competences necessary for students' business activity have been studied separately.

Nowadays young people do not know how to cope with difficulties and risks, they lack self-dependence when they have to adopt a decision, or have no sufficient confidence. Many respondents at the same time admit that they lack such personal qualities, as insistency and tenacity, inventiveness and creativity, communicative and organizational abilities. 36% of respondents need to develop managerial competences.

From time to time the university students attend different master-classes and trainings (62% respondents), elective courses (41%), summer/winter business-schools (42%), Staff programs (33%), conference-talks in the Businessmen Club (17 %), which can serve as a form of entrepreneurial culture development.

Since business environment is a key element in students' entrepreneurial culture development, the university has to pay attention today to business environment development and the conditions motivating the youth's entrepreneurship in all appropriate aspects of making.

The questionnaire among the students of the Yessenov University was conducted with the aim to assess the university's entrepreneurial opportunities. The questionnaire data concern important aspects of the university entrepreneurship air and are indicated in Table 1.

Table 1. Students' opinion of the entrepreneurial environment of the university

Assertion of assessment	Assessment mark
The university provides educative and consulting services to students concerning development of own business-project	3
If the university can provide financial support to startup projects, I may be change my mind towards own business	5
The university should provide facilities, the necessary equipment and laboratories to work on projects	5
The university leaders should invite experts in business to develop Business Studies curriculum documents (economic, law, ethical, managerial, communicative), with the view of required competences development	4
In my university such business events, as entrepreneurship master-classes, trainings, interactive seminars, conference-talks with prosperous speakers – business-coaches are conducted	4
In my university a Center of entrepreneurship and innovations is efficiently functioning	4
In the university there is a business-friendly climate	3
The university has the system of motivations and incentives for involving students into entrepreneurial activity	3

The main point to be paid attention is that the students underestimated the educative and consulting services provided by the university as support measures to students' business projects development. According to the respondents' opinion, the university leaders should invite experts in business to develop Business Studies curriculum documents with the view of required competences development, as well as provide all the project-related activities with appropriate premises, equipment and laboratories.

Furthermore, the students' opinion analysis shows that the university began motivational activity now aimed at students involving into entrepreneurial activity. This is connected with foundation of the Center of entrepreneurial development and innovations on the basis of the Yessenov University.

4. Conclusion

On the whole, the students have positive attitude to entrepreneurship. This is influential on the potential of youth's entrepreneurship development at the Yessenov University.

The entrepreneurial proactive attitude of students depends on a lot of factors. The factors against the students' own business activity have, mainly, personal background, as lack of business-ideas, uncertainty to undertake own business because of market instability, lack of appropriate competences and knowledge, and others. With this regard one of the university tasks is to be connected with active project-oriented students' work (startups).

Though the majority of students who highly appreciate the university's role in entrepreneurial culture development, nevertheless, they feel unsatisfied with the real support measures the university leaders arrange to create business environment in the university. They think that a support resource base is needful, as well as popularization of Entrepreneurship education and professional competences development.

Educative business events, as master-classes, trainings, elective courses, summer/winter business-schools, project work of interdisciplinary teams and so on, as well as startups fundraising support, special premises for business projects work, creating business-friendly atmosphere, involvement into intellectual products creation and marketing, and others are to be among the most important support measures for students' entrepreneurial culture development.

The need to develop students' entrepreneurial culture is caused by high requirements to professional training, and by current economic and socio-cultural policy. It is highly important to motivate students to develop strive for entrepreneurship and innovations.

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