ROLE OF HIGHER EDUCATION INSTITUTIONS IN SOCIETY: CHALLENGES, TENDENCIES AND PERSPECTIVES

Academic papers

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INNOVATION IN ENTREPRENEURSHIP: PROBLEMS AND PROSPECTS FOR DEVELOPMENT. NATIONAL AND NORWEGIAN EXPERIENCE

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Abstract
The article discusses the innovation activities of enterprises in Ukraine. Negative and positive risk factors of innovation are considered: limiting and stimulating factors, as well as factors hindering the dynamic development of innovation activity in Ukraine. Thanks to the research, other scientists conducted summing up the already known information, as well as discover the problems of innovation activities of Ukrainian enterprises and their solutions. For this aim we use the experience of Norway. Consider information about innovation clusters and find the possibility of using the experience of Norway for Ukraine.

Keywords: innovation, scientific approach, social entrepreneurship, business, economic development, entrepreneurship.

Introduction
One of the prerequisites for ensuring the growth of the domestic economy is the implementation by business entities of innovation activities. With the development of economic relations and the transition of the Ukrainian economy to the market economy for the enterprise, it is important to survive in conditions of fierce competition. Innovative processes play an extremely important role in the modern economy, and identifying and taking into account their peculiarities is an indispensable condition for ensuring the effectiveness of the state’s economic strategy.

Only in this way, the national economy can take a decent place in the global market environment. Innovative entrepreneurship at the stage of its development becomes the main structure-forming element of a competitive market environment, an important driving force for the development of the economic system. Ensuring the proper level of development of innovative entrepreneurship in the country will enable to increase the competitiveness of the economy and contribute to the growth of the country’s GDP.

In Ukraine, issues of the development of the innovation system and innovation entrepreneurship were dealt with by such scholars as L. Fedulova, M. Pashuta, A. Sirko, A. Galchinsky, V. Heyets, A. Kinakh, V. Seminozhenko, A. Chukhno, L. Melnikov, I. Pryluky, V. Zyankota, and others. Scientists define the role of the national innovation system in innovation development, the state of state regulation of innovation processes and analyze its individual components. Problems of management of innovative processes are investigated in the works of such domestic scientists as Y. Bazhala, V. Bazilevich, Z. Varnalia, A. Galchinsky, V. Geytsa, I. Egorova, O. Zhilinska, I. Pavlenko, V. Sisonenko, V. Solovyov, and L. Fedulova.

The study of Norwegian innovations were carried out in Norway by Scientists B. Asheim, A. Isaksen and L. Cohen and they are the developers of the theory of regional innovation systems. Researchers have analyzed the connection between regional innovation systems and clusters (Asheim, 2005).

Actual scientific researches and issues analysis
Austrian and American economist, political scientist, sociologist and historian of economic thought, Joseph A. Schumpeter (1883-1950) first began to study economic dynamics and substantiated the main provisions of the theory of innovations. He is regarded as one of the greatest economists of the first half of the twentieth century. Schumpeter is considered the father of innovation. According to Schumpeter innovation is a «process of industrial mutation, that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one» (Schumpeter, 1942): Schumpeter described development as a historical process of structural change, which was caused by innovations, which he divided into five types (Schumpeter, 1934):
1. introduction of either a new product unknown to consumers or a new type of product (consumer novelty);
2. implementation of a new production method;
3. opening of a new market in which this industry has not been presented before;
4. opening of a new source of raw materials;
5. introduction of a new organizational structure in any industry.
Schumpeter wrote the theory of innovations in 1939. Now we define innovation more rigorously by means of the production function previously introduced. Production function describes the way in which quantity of product varies if quantities of factors vary. If, instead of quantities of factors, we vary the form of the function, and we have an innovation (Schumpeter, 1939).

Joseph A. Schumpeter identified five typical changes in economic development based on innovation:
1. the use of new technology, new technological processes or new market provision of production (purchase and sale);
2. introduction of products with new properties;
3. use of new raw materials;
4. changes in the organization of production and its logistical support;
5. the emergence of new markets (Schumpeter, 1934);

The English economist Adam Smith (1723-1790) initiated the study of innovation processes associated with the division of labor, specialization, invention and mechanization. His model of economic development includes division of labor, productivity, income, mechanization and technical progress.

David Ricardo (1770-1823) first investigated the influence of new ideas and substantiated the presence of the effect of their introduction (innovations) into production as a deepening process of division of labor and the opening of new markets.

The American economist P. Drucker (1909 –2005) emphasized that innovation is a special tool of entrepreneurship. In the process of innovation, new resources appear, and new applications are available (Textbooks for students online).

The Norwegian scientist and Professor Dr. Jan-Urban Sandal consider that changes in society are impossible without social innovation. He relates the importance of social entrepreneurship with innovation. Social entrepreneurship involves controlling the process of social change through innovation. We can define social innovation as social innovation is a process by which a person takes free and independent decisions on the combination and use of factors of production, with a view to introducing a social service that should improve people’s lives and not exist earlier in the market. As a result, social value is increased.

The social entrepreneur operates with a high degree of risk and with a good reputation on the line. If the activity fails, the social entrepreneur loses the trust of the market and his reputation as a social agent (Sandal, 2010).

The research objective

The aim of this article is to consider innovation in entrepreneurship. Identify problems of innovation at Ukrainian enterprises and identify prospects for the development. Furthermore, considering Norwegian innovation experience at the enterprise. We will also compare the innovation activities of the Ukrainian and Norwegian experiences.

The statement of basic materials

Today, innovation has a very important role. The country that implements innovation takes the leading position in the economy. Effective innovation activities provide many benefits for building an efficient economy.

Modern enterprises, operating in a complex socio-economic environment, need to create and implement a variety of innovations that can provide advanced positions in a competitive environment. Accordingly, a permanent and integrated provision of innovative development will ensure a non-conflict transition of the company to a new level of its life and make Ukrainian products competitive to enter the European market. The enterprise management system should be open to innovation and provide continuous self-education and self-development at all levels of their interconnections with the external environment.

Innovation is always a very risky activity. Consider the negative and positive factors of the risks of innovation.

Constraining factors:
- financial losses as a result of rejection of innovative products by the market;
- loss of business image as a result of failure of innovation;
- lost opportunities due to concentration of efforts on unpredictable projects;
- difficulties in financing innovative activities;
- transformation of the traditional system of functioning of the enterprise and management of its activity;
- high costs for implementing an innovation project;
- rebuilding well-established relationships with partners, for example, when it’s impossible to use existing supply channels for raw materials or product sales.

Stimulating factors:
- Improvement of financial results as a result of the successful implementation of an innovation project;
- getting big profits;
- growth of the image of the enterprise;
- outstanding competitors in this market segment;
- attracting new customers and maintaining the interest of existing ones by providing them with more sophisticated products;
- improvement of the organizational structure of the enterprise;
- realization of creative potential of employees of innovative enterprise;
- penetration into new, more financially attractive spheres of activity, development of new profitable markets.

The main initiator of innovation in a market economy is the use by companies of innovation in competition to enhance their competitiveness.

In general, in the case of developed countries, sustainable economic growth is based on a high level of innovation and the use of knowledge and innovation as one of the main economic resources. It is innovation activity of enterprises that can ensure their competitiveness both in the domestic market and on the external.

The positive social effect of innovation lies in:
- direct the economy on an intensive development path;
- ensure the growth of productivity factors of production;
- help redistribution of resources on promising socio-economic directions.

Innovation processes in Ukraine are unsustainable and do not have clear long-term incentives for innovation. The national scientists define the state of investment activity in Ukraine as a crisis, because it does not correspond to the level of innovation processes in highly developed countries.

Ukraine has created conditions for the development of innovation activity, formed the basis of the regulatory framework and mechanisms for implementing innovation policy, as well as creating conditions for the development of appropriate infrastructure. However, despite the high innovation potential, the innovative component of economic development is poorly utilized. The state of innovative activity in Ukraine is defined by the majority of experts as crisis.

The main factors hampering the dynamic development of innovation activity in Ukraine are:
- high risks and insufficiency of funding sources;
- short-term payback;
- insufficient number of scientific and innovative structures
- lack of international scientific and technical programs and cooperation projects;
- outflow of scientists.
- imperfect legislative framework regulating innovation activity
- low professional level of innovators, imperfect system of motivation of creative work;

In addition, an important factor hindering the development of investment activity is the lack of development of innovation infrastructure. In Ukraine, innovative infrastructure does not cover all aspects of innovation processes, only separate elements of infrastructure are formed, almost no venture funds function, technology transfer, or lack of proper support for research and development institutions.

In addition, the current economic situation in Ukraine is characterized by a low level of use of scientific knowledge, a very slow increase in the production of innovations. Despite the fact that Ukraine belongs to eight countries with the necessary scientific and technical potential for the creation and production of the latest aircraft, it is among the top ten largest shipbuilding countries in the world. Even though domestic machine-building products occupy some of the leading places in Europe, it is significantly behind the countries European Union on the general level of innovation activity. The reason for this may be an unstable political and economic situation in our country.

### Table 1. Costs for innovation activity in Ukraine, UAH million (State Statistics Service of Ukraine, 2016)

<table>
<thead>
<tr>
<th>Year</th>
<th>Research and development</th>
<th>Acquiring new technologies</th>
<th>Purchase of machinery and software</th>
<th>Other expenses</th>
<th>Total cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>1196,3</td>
<td>47,0</td>
<td>8051,8</td>
<td>2185,5</td>
<td>11480,6</td>
</tr>
<tr>
<td>2015</td>
<td>1638,5</td>
<td>87,0</td>
<td>5546,3</td>
<td>2290,9</td>
<td>9562,6</td>
</tr>
<tr>
<td>2016</td>
<td>1754,6</td>
<td>47,2</td>
<td>5115,3</td>
<td>778,8</td>
<td>7695,9</td>
</tr>
</tbody>
</table>

Figures show that over the past 3 years there has been a decline in the state’s innovation activity. Comparing the years 2014 and 2016 shows that during this period, the total amount of expenses for innovation activity has decreased. Enterprises should actively use and initial activities in order to receive more profits and be competitive.
Modern companies operate in extremely difficult conditions: lower demand for their goods and high competition, loans at high interest rates. This means that every enterprise that strives to stay stable must become a pioneer, but company executives do not invest in innovation and try to save their own revenues by reducing indirect costs.

The world’s most productive innovation is considered industry. Production becomes more oriented not to the mass consumer, but to the specific needs of individual individuals, that is, in markets with small capacity. The number of entrepreneurial structures, especially small and medium-sized enterprises, which are able to adapt quickly to the requirements of the environment, is growing at a high pace. The rapid pace of modernization of people’s lives leads to an increase in the requirements for the quality of goods and services, to their diversity. Accordingly, society becomes more open and responsive to innovation as a means of achieving the necessary diversity.

The problem of the development of innovative entrepreneurship in Ukraine is due to the transition of the economy to a new innovative type of development. Economic growth of the country in modern conditions depends to a large extent on its ability to adapt to technological changes, and the increase in turnover and growth of production - from innovations.

An important role in the competitiveness of enterprises is given to clusters - geographically united by groups of interconnected companies, specialized suppliers, service providers, firms in the relevant industries, as well as related activities by organizations in certain areas that compete with each other, and together with and they work together. The cluster concept is a new method of vision of the national economy, and also points to the new role of companies and governments trying to improve their strategic position on the market.

Norway is ranked first in the world ranking on the level of stability and business environment, provided with an appropriate legal framework and strong state support, and is characterized by openness and transparency.

Norway has been leading the level of satisfaction of the population with its life for several years in a row. For example, a strong purchasing power of the population is ensured, on the one hand, by their high competence, and on the other, with decent pay for workers’ professions that are not inferior to their prestige before management. The human factor is a key indicator for assessing the effectiveness of the functioning of the state apparatus. One of the main reasons for successful business is the development of social entrepreneurship as one of the forms of ensuring economic stability and social balance, which is aimed at reducing or solving social problems.

Today, social entrepreneurship in Norway is considered at two levels: government support and the activities of large corporations that support financially or resourcefully social entrepreneurs.

Innovative technologies in Norway are in top positions among developed countries. Formation and strengthening of innovative clusters is one of Norway’s national priorities. It is a complex process of interaction between its various participants - it is private business, the state, higher educational institutions, non-governmental organizations, etc., and are the result of their mutually beneficial cooperation.

“Norwegian Innovation Clusters is a government supported cluster program. The program aims to trigger and enhance collaborative development activities in clusters. The goal is to increase the cluster dynamics and attractiveness, the individual company’s innovativeness and competitiveness. The program is organized by Innovation Norway, in joint effort with Siva (The Industrial Development Corporation of Norway) and the Norwegian Research Council” (Norwegian Innovation Clusters).

The Norwegian Innovation Clusters programme is based on the following understanding of clusters and cluster development:

- A cluster - a geographical association of enterprises and similar knowledge, which are interconnected by interests and needs. Enterprises can get easier access to important production factors and ideas, as well as to innovations through interaction and collaboration. Over time, a cluster arises based on the advantages of location and development dynamics.
- A cluster organization is an official institution created for the purpose of greater interaction and cooperation between cluster participants. The cluster organization is based on partnership relations between cluster participants, and may also be state development agencies.
- The cluster development project is targeted action for a certain period in order to strengthen and strengthen the cluster’s development. This can be achieved by introducing long-term measures aimed at strengthening the competitive positions of the participants in these clusters (Norwegian Innovation Clusters).
- The program contributes to a documented positive development in each cluster based on the cluster’s established position and prerequisites for development. The specific objectives of this development are determined for every level, but should for all the clusters be expressed in the following common goals:
- The cluster businesses, knowledge institutions and development actors should increase their interaction and cooperation.
- The cluster should increase their capacity for innovation through collaboration with R & D or other
knowledge providers.
- The cluster should enhance their access to relevant expertise.
- The cluster firms and knowledge providers should increase their international orientation.
- The cluster should establish an environment that promotes the development and application of knowledge as the foundation for entrepreneurship, investment, innovation and change.
- The cluster’s resources and potential should be visible” (Norwegian Innovation Clusters).

According to Doing Business (World Bank Index) (as of June 2017) Norway ranked sixth in the ranking among 190 countries, ahead of Britain, Germany, the USA, Finland, France, Switzerland, Sweden and Japan (Doing business 2017). In the same rating, Norway is ahead of Ukraine (80th place) - 74th position. According to the Global Community of Practitioners on Challenges of Competitiveness of Clusters and Innovations (TCI), Norway, in terms of the number of cluster initiatives, is ahead of such advanced Nordic countries as Belgium, the United Kingdom, Denmark, the Netherlands, Finland, and Sweden. Cluster initiatives involving entrepreneurs, academics, government officials and other stakeholders stimulate the process of creating and operating innovative clusters.

There are currently 33 cluster initiatives in Norway, including four in the engineering and food sector, three in the marine, ecological, oil and gas, tourism and information technology sectors, two in the energy and metallurgy sectors (Cluster resources, 2017). According to the TCI (2017), cluster initiatives are gaining momentum in such promising sectors of the Norwegian economy as alternative energy, biotechnology, biopharmaceuticals, etc.

Summary

The Norwegian experience is very interesting, but the Norwegian economy is now at a more advanced level than the Ukrainian one. Innovative clusters are mainly funded by the state and not fully efficient in practice, because the state pays too much interest in the development of innovations and does not allow full individual freedom of potential. The creators of innovation must be individuals. As we know, an entrepreneur is one person. If entrepreneurs are united and do some work together, they cannot be called entrepreneurs and their activities will not be innovative.

So it is very problematic to use the Norwegian experience for Ukraine because:
1. there is not a stable economic situation in Ukraine and there is a social transformation;
2. state funding is limited, since money is directed towards education, medicine, and military sphere;
3. private business does not develop, but survives due to the instability of the Ukrainian economy.

First of all, in order to improve the state of innovation activity in Ukraine, it is necessary to organize a more developed innovation infrastructure, namely the creation of innovation parks, techno centers, scientific and technological and technology centers that specialize in creating favorable conditions for the effective operation of innovative enterprises that implement original scientific and technological ideas. Today only techno parks are the only effective mechanism in Ukraine, but their number does not meet the conditions of the innovative strategy of economic development.

Effective state support for scientific staff is also needed, in order to be able to use as much innovative potential of the country as possible and to stop the outflow of scientific personnel abroad.

First of all, the state should stimulate the introduction of innovative developments in manufacturing enterprises, since it is the manufacturing enterprises that have a rather high chance of success. An effective source of financing for innovation is investment, and it is necessary to create a favorable investment climate in the country.

Ukraine faces several complex tasks related to the financing of innovation activities, namely:
- increase of total investment in innovation from public and private sources;
- improvement of management of the innovation system and financing of innovation activity;
- development of effective tools for supporting innovative activity for the entrepreneurial sector and attracting primary and venture capital;
- setting clear innovative goals.

For the development of innovation activity in Ukraine, it is necessary to implement a set of organizational and economic measures:
- provide the necessary conditions for the development of innovation activities and social entrepreneurship;
- implementation of an effective state innovation policy, coordinating the pace and proportions of the development of science, technology and production;
- improvement of the mechanism of protection of intellectual property rights and procedures for patent protection of innovations;
- ensuring a favorable climate for the creation of its own high technology productions of the full cycle through the use of various forms of state support;
- development of innovation infrastructure by improving the information support system of innovation activity, certification and implementation of development, training and retraining of personnel;
- ensuring the commercialization of scientific results through the formation of the basis for effective partnership between the state and business sectors in the innovation field;
- expansion of interstate cooperation in the field of scientific research and innovation, coordination of efforts in the development of priority areas for several states (Project of EU, 2011).

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Anotacija

VERSLOΜΟ INOVACIJOS: VYSTYMOSI PROBLEMOS IR PERSPEKTVYOS. NACIONALINĖ IR NORVEGIJOS PATIRTIS

Efektyvių inovacijos skatina ekonominės ekonomikos, Šiandien inovacijos atlieka labai svarbų vaidmenį. Šalis, įgyvendinanti inovacijas, užima pirmaujančią poziciją ekonomikoje. Šiuolaikinės įmonės veikia sudėtingoje socialinėje ir ekonominėje aplinkoje, reikalaujančioje sukurti ir įgyvendinti įvairias naujoves, galinčias suteikti pažangias pozicijas konkurencinėje aplinkoje. Todėl nuolatinis ir integruotas inovacijų vystymas užtikrins, kad kompanija pereitų į naują lygį ir kad Ukrainos produktai taptų konkurencingi patekimui į Europos rinką. Įmonės valdymo sistema turėtų būti atviri naujovėms ir užtikrinti nuolatinę saviradžią ir savarankišką vystymąsi visuose tarpusavio ir su išorine aplinka lygmenyse.

Pagrindinis rinkos ekonomikos naujovių iniciatorius yra inovacijų diegimas įmonių konkurencijos sąlygomis, siekiant padidinti jų konkurencingumą. Apskritai išsivysčiusių šalių atveju tvarus ekonomikos augimas grįzdžiamas aukštu inovacijų lygį ir žinių bei inovacijų, kaip vienu iš pagrindinių ekonominių išteklių, naudojimo. Įmonių inovacinė veikla gali užtikrinti jos konkurencingumą tiek vidaus rinkoje, tiek išorėje. Teigiamas socialinis inovacijų poveikis yra:
- ekonomika nukreipiama intensyvaus vystymosi keliu;
- užtikrinamas gamybos veiksnių našumo augimas;
- skatinamas išteklių persikirstymas perspektyvioms socialinėms ir ekonominėms kryptims.

Inovacijų procesai Ukrainoje yra nepastovūs ir neturi aiškių ilgalaikių paskatų diegti naujoves. Nacionaliniai mokslininkai teigia, kad Ukrainos investicinė veikla yra atsidūrusi krizinėje būklėje, nes jį neatitinka inovacijų procesų lygio išsivysčiusiose šalyse.

Ukraina sukūrė sąlygas naujovių diegimo veiklai plėtoti reguliavimo sistemos ir inovacijų politikos įgyvendinimo mechanizmų pagrindu ir sukūrė sąlygas atšilimamos infrastruktūros plėtрай. Tačiau, Nepaisant didelio inovacijų potencialo, novatoriško ekonominio vystymosi komponentas yra prastai naudojamas. Naujovių aktyvumo Ukrainoje būkite dauguma ekspertų apibūdina kaip križę.

Novatoriško verslumo vystymosi Ukrainoje problema yra ta, kad ekonomika pereina prie inovacijų vystymosi lipo. Šalies ekonominis augimas šiuolaikinėmis sąlygomis labai priklauso nuo jos gebėjimo pritaikyti
Norvegija pirmąsiai pasaulio reitinguose pagal verslo aplinkos stabilumą, kuriam suteikta tinkama teisinė sistemą ir stipri valstybės parama, ir kurių būdingas atvirumas ir skaidrumas.


Šiuo metu Norvegijoje yra trisdešimt trys grupių iniciatyvos, iš jų keturios - mechanikos ir maisto pramonėje, trys - žveja, ekologijos, naftos ir dujų, turizmo ir informacijos sektoriuose, dvi energetikos ir metalurgijos sektoriuose.

Norvegijos inovacijų grupės yra vyriausybės remiamais programomis. Programos tikslas - aktyvinti ir stiprinti bendrą vystymo veiklą grupėse.


Taip pat reikalinga veiksminga valstybės parama mokslo darbuotojams siekiant panaudoti šalies novatoriškiausių potencialą ir sustabdyti mokslo personalo nutekėjimą užsienyje.
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