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INNOVATION STUDIES AND INNOVATIVE CAPACITY OF EDUCATION SYSTEM: ECONOMIC AND THEORETICAL IMPLICATIONS

The paper covers the basic concepts, theories and patterns of innovative processes. The key emphasis is made on the analysis of innovation studies and innovative capacity of education system. The need for establishing an optimal combination of market innovation mechanisms and active government support of assimilation and diffusion of pivotal innovations that would determine the country's competitiveness is substantiated.

Keywords: *innovation studies; innovative processes; innovative education.*

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ІННОВАТИКА ТА ІННОВАЦІЙНА ЗДАТНІСТЬ СИСТЕМИ ОСВІТИ: ЕКОНОМІКО-ТЕОРЕТИЧНИЙ АСПЕКТ

У статті розкрито основні концепції, теорії інновацій та закони протікання інноваційних процесів. Головну увагу зосереджено на аналізі інноватики та інноваційної здатності системи освіти. Наголошено на необхідності оптимального поєднання ринкових інноваційних механізмів і активної державної підтримки освоєння і поширення базисних інновацій, що визначають конкурентоспроможність країни.

Ключові слова: *інноватика; інноваційні процеси; інноваційна освіта.*
Табл. 1. Літ. 23.

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ИННОВАТИКА И ИННОВАЦИОННАЯ СПОСОБНОСТЬ СИСТЕМЫ ОБРАЗОВАНИЯ: ЭКОНОМИКО-ТЕОРЕТИЧЕСКИЙ АСПЕКТ

В статье раскрыты основные концепции, теории и законы протекания инновационных процессов. Основное внимание уделено анализу инноватики и инновационной способности системы образования. Акцентировано внимание на необходимости оптимального сочетания рыночных инновационных механизмов и активной государственной поддержки освоения и распространения базисных инноваций, определяющих конкурентоспособность страны.

Ключевые слова: *инноватика; инновационные процессы; инновационное образование.*

Problem statement. Traditions and innovations are complementary factors of development: any innovation is in certain contradiction to the existing tradition, and it can arise only inside it (Grudtsyna, 2010).

Tradition characterizes the system's tendency to stability and reproductive capacity; while innovation is determined by the creative potential of actors and the innovative abilities of the environment. Traditional and innovative aspects of the system are knit together by the overall objective – to develop its strength and integrity.

Literature review. The credit for discovering the innovative dynamics and developing the foundations of the innovations theory of cyclic-genetic regularities of society development goes mainly to F. Braudel (1988), N. Kondratiev (1925; 1991), S. Kuznets (1926), G. Mensch (1979), J. Schumpeter (1982) and P. Sorokin (1992).

Scholars, who are the authors of the system concepts of innovations (Ilyin et al., 1996; Lapin, 2008; Potashnik and Khomeryky, 1994; Prigozhin, 1989; Sazonov, 2008;

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Slastionin and Podymova, 1997; Yakovets, 2004) consider the problems of creating and using innovations in higher education, analyze the conditions for their effective introduction, as well as the key characteristics of innovative process given that innovation has a certain logic behind its deployment logic – from a novel idea to its use, as well as the logic of relations among the process actors involved.

Unresolved issues. At the same time, the following issues are not sufficiently studied: education system's innovativeness, innovative educational activities as a process of creating and implementing innovative educational programs that turn educational innovations into novel technologies of training and ensure better performance of education activities.

The research objective is to expand the concepts, theories of innovations and the basic laws governing the course of innovative processes through carrying out a scientifically grounded analysis of innovation studies and innovativeness within the educational system.

Key research findings. Novelty is the main result of a creative process, a property and inherent value of any innovation. According to the dictionary by S.I. Ozhegov and N.Y. Shvedova (1999), innovation means "created or developed for the first time, recently appeared or arisen instead of the former, newly discovered, belonging to the immediate past or to contemporaneity, insufficiently familiar, little known".

A very detailed and sufficient overview of various interpretations and views on "innovation" can be found in (Grudtsyna, 2010).

The very notion of "innovations" encompasses fundamental difference from the current state of affais offering, significant level of novelty. Considering this, here we summarize the types of innovation classifications (Table 1).

Contemporary studies of the impact of globalization on the civilization development pathway show increased territorial differentiation of innovative process. Thus, a group of developed countries with high level of average per capita income (15% of the world population) owns the bulk of innovations and high-tech industries. Countries with low level of average income per capita are usually in the state of technological stagnation and do not have adequate financial resources and skilled labor to implement pivotal innovations. As a result, the technological and economic gap between countries and civilizations is only growing (Grudtsyna, 2010).

Today, followers of Ukrainian innovative school I.S. Bakhov (2014), S.A. Yerokhin et al. (2008), M.A. Pichugina (2015) recognize the need for an optimal combination of market innovative mechanisms and active government support for assimilation and diffusion of innovations determining the country's competitiveness. It is the state that forms the legislative rules for innovation-based development, creates innovative climate, and enforces standards and rules for innovative activity. As noted by (Grudtsyna, 2010) the state must first of all perform a strategically innovative function: to back pivotal technological and economic innovations; implement innovations in the non-market sector of the economy at its own expense.

However, over the 2000 to 2005 period, the state actually removed itself from practical support of innovation-driven development. A medium-term reform program was carried out but strategic guidelines for socioeconomic development of the country basing on long-term investment projects were not presented. It was not until 2006 that the draft law of Ukraine "On the Strategy of Socioeconomic Development

of Ukraine for the Years 2006–2020" determined the task of accelerated modernization, the objective of which consisted in the transition to a postindustrial society.

Table 1. **Types of innovation classifications,** *compiled by the author as summary of* (Prigozhin, 1989; Yakovets, 2004)

Classification type	Types of innovations	Characteristic of innovations
By kinds	Innovations in the spiritual sphere	Ideological orientations, religious instructions, ethical norms
	Socio-political	Forms of organization of social and civic movements and political parties
	State-legal	Forms of public authority organization
	Environmental	Forms and modes of rational use of natural resources and their restoration
	Economic	The most effective forms of resources organization and management: new institutions, new types of documents, new methods of managing economic processes etc.
	Technological	Technological modes and modes of production
	Military and legal	Methods of conducting operations, organizing law enforcement forces
By the level of novelty	Epoch-making	Innovations leading to deep transformations of a given sphere of social life, transition to a new socio-cultural order
	Pivotal	Sweeping changes in the technological base, ways to organize production and public (legal) system
	Improving	Innovations intended to develop and modify pivotal innovations, diffuse them in various spheres
	Micro-innovations	Innovations designed to improve individual parameters of products manufactured, technology used, economic, social and political systems
	Pseudo-innovations	Erroneous ways of human ingenuity and enterprise (a semblance of innovation)
	Anti-innovations	Innovations of a reactionary nature, a setback in a given sphere of human activity
By the territorial area	Planetary innovations	Covering the entire populated territory of the planet, deeply transforming it
	Local (regional) innovations	Innovations confined to the territory of a country, region, city
	Pinpoint innovations	Innovations confined to the limits of one organization (enterprise), team

Postindustrial modernization mission is to build knowledge-driven economy – an economy that uses high-performance resource-saving and environmentally friendly manufacturing technologies and is able to produce generation of innovations for intensive economies self-renewal. Cooperation of business and governmental authorities expressed through national projects can become one of the key conditions for successful modernization.

In this context another important responsibility of the state is the formation of innovative climate. The notion of "innovative climate" includes a number of interrelated elements:

- fully developed and stable legislation taking into account the specifics of innovative activities and providing guarantees of intellectual property, innovator's rights protection;
- securing economic preferences for innovative activities aimed at implementation of strategic priorities in the form of tax and customs privileges, preferential loans, development of venture capital financing for small and medium-size innovative business;
- development of innovation infrastructure, establishment of innovation business centers, incubators and technopolises, arrangement of innovation exhibitions, fairs;
- arrangement of technological appraisal of investment projects, which enables assessing the level of innovative while turning investment into innovations;
- development of innovative education through the system of continuous vocational education;
- development of strategic innovation thinking among public servants, as well as their awareness of the basic notions, concepts and technologies of innovative activities.

According to L.I. Romankova (1999), innovativeness of educational system manifests itself in two interrelated areas: first, the ability of education institutions to engage students into creative activities, their ability to adapt to constantly changing world of professional activity; second, the capacity of vocational educational system for innovation-based self-development.

Based on the analysis of global trends in the postindustrial society transformation, it must be acknowledged that modernization of the domestic system of higher and postgraduate education with the focus on innovative education is the key factor in forming and developing innovativeness of Ukrainian society, forwarding Ukraine's to the group of developed countries of the world, improving its international image as a country with high cultural and technological potential.

Conclusions and prospects for further research. In today's volatile socioeconomic environment, innovativeness of an entity is limited and simultaneously is fostered by the need to adapt to new conditions.

The purpose of professional training in this context is individual acquiring on knowledge of how to actualize creative abilities in the best possible way through acquisition and development of professional skills. Successful innovative activities depend on creative personal self-fulfillment. So one can consider any professional educational activity primarily as innovative one, which is a conscious creation product formed on the principle of individualization of initiative.

Special feature of transition from one millennium to another consists, in our opinion, in a change of the interaction environment requiring conformance of education to innovative activities of the postindustrial society. The concept of innovative education is concordant with the requirements of knowledge-driven economy.

Science of education itself must considerably extend its frontiers, taking into account educational cycles and crises in the structure of society's cyclical behavior. And in this context developing the economics of education as one of the vital sectors ensuring the reproduction of human capital is of particular importance.

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