

UDC 278.091.12-047.22

10.18372/2306-1472.68.10917

Oktay Aliyev

BUSINESS SIMULATIONS AS A COMPONENT OF AN INNOVATIVE MODEL OF MODERN ECONOMIC EDUCATION

Academician Yuriy Bugay International Scientific and Technical University
Magnitogorsky Lane, 3, 02094, Kyiv, Ukraine
E-mail: Oktay_Kerim@ukr.net

Abstract

Purpose: In the article there has substantiated the author's research viewpoint on understanding the essence of the notions of «innovation», «innovative model of development», specified the role and importance of innovation development of modern economic education in Ukraine as an important factor of economic socialization of people, as a powerful factor in improving the quality of human capital. **Methods:** In the article there has been used the method of terminological analysis to determine the essential content of the notions «innovation», «innovative model of development», «business simulation in higher economic education»; the observational methods (incorporated and indirect surveillance) to typify the experience of training of future specialists in Economics in higher domestic economic institutions, including the Academician Yuriy Bugay International Scientific and Technical University (MNTU). **Results:** The author suggested the definition of essence of the meaning of the notion «business simulation in higher economic education» being an innovative computer programs that simulate the real economic environment and enable the future professionals in the sphere of economy to acquire knowledge and skills in doing entrepreneurship and business so that they could practically apply them in both the process of virtual learning and in the real professional activity. The performed in article examination of the experience of training of future specialists majoring in Economics in the domestic tertiary economic institutions, including the Academician Yuriy Bugay International Scientific and Technical University (MNTU), enabled the author to rationalize the actuality of introducing business simulations in the educational process of higher economic establishments. According to the author's opinion, the introduction of online programs in the educational process of higher educational institutions of Ukraine enables not only the creation of highly automated working environment of the future specialist-economist, but it is promising in terms of implementing innovative model of economic education for it provides real opportunities to students at the study stage at the higher economic educational institutions to have access to the latest innovative information in any form (text, graphics, audio, video, images, etc.). **Discussion:** There has been substantiated that the business simulation being an innovative method of teaching economics in higher economic education establishments creates a situation which is close to the real settings of professional activity, and, at the same time, the environment of the simulation has been modeled with consideration of real market rules (diminishing returns, supply and demand, additional cost competition, «outflow» of capital, etc.).

Keywords: business simulations; higher economic education; innovative model of economic education; virtual learning; innovations; training of the future professionals in the field of the economy.

1. Formulation of the problem.

The modern economic education is an important factor of economic socialisation of people, and it has a strong potential for development and improving the quality of human capital. We believe that economic education is a powerful lever of social and economic development of countries seeking to achieve high living standards of people, to be

competitive in all spheres in global markets of the services.

Ukraine has considerable reserves (economic, natural, human, etc.), which may give it a quick breakthrough in achieving high living standards of people, to establish itself in world opinion as a country that can use time and domestic resources to accelerate effective economic growth, for implementation of innovative models development.

Investigation of the innovative component of training economists-to-be in higher education in Ukraine and other countries shows that higher education institutions (HEIs), training future economists have success in implementing virtual learning, including online simulations and online games.

This stipulates the direction of our scientific research because we believe business simulations are an important element of the innovative development of modern economic education.

2. Analytical review of researches and publications

Generalization of information sources on the chosen direction of research allows us to learn that various aspects of professional training of the specialists majoring in Economics have been the subject of scientific study such scientists as: V. Bazylevych, V. Bobrov, N. Nychkalo, O. Padalka, T. Poyasok, M. Levochko and others.

The problems of higher education, and economic in particular, are examined in the studies of foreign scientists (F. Altbach, F. Klein, S. Kurbatov, P. Scott E. Toffler and others).

The works of V. Bobrytska which revealed problems innovations in modern higher education in Ukraine and abroad are theoretically important for our study [1; 2; 3], as well as developments of O. Nozhovnik, whose scientific investigations highlight the aspect of forming self-educational competency of the economists-to-be, in particular by means of business simulations [4; 5; 6].

3. Formulating the purpose of the article and its tasks

Recent requirements for training specialists with higher economic education in Ukraine condition the need of finding the didactic tools to improve the quality of training of the future economists.

In view of this, the objective of our research is to rationalise the introduction of business simulations as a component of an innovative model of modern economics education.

To achieve the objective we are to focus our scientific interest on solving the following tasks: to substantiate the author's research position on understanding the essence of notions «innovation», «innovative model of development» the author's original interpretation of the phenomenon «business simulation in higher economic education»; 2) to

review and analyse the experience of training of future specialists in Economics in the domestic universities, including the Academician Yuriy Bugay International Scientific and Technical University (MNTU); 3) to substantiate the introduction into the educational process of higher economic establishments business simulations regarded as an innovative computer programs which are able to model the real economic environment and enable future professionals to practically apply the knowledge in Economics along with the skills in doing entrepreneurship and business.

4. Background information presentation

The starting standpoint in achieving the objective of the study we will determine to be V. Bobrytska's assertion that modern axiological determination of the sphere of social experience, everyday knowledge and theories are centering around the process of higher education, including economic one, a social demand on education of the younger generation, the formation in them scientific knowledge and cross-cultural values, the ability to live and work in the multicultural interaction among the peoples of the European continent, establishing the principle of European education – the «knowledge triangle», which sets the need to strengthen connection among training, research and innovation [1, p. 229-230].

Given the above, we are to decide that the format of our research is aimed primarily at highlighting the specific aspects of interaction in the «education-research-innovation» for example, the use of business simulations in higher economic education.

It is important that in our study we will use the interpretation of the notion «innovation» which is presented in the «Encyclopedia of Education»: «Innovations in education is considered the process of creation, implementation and dissemination in educational practice new ideas, tools, educational and management technologies, resulting in increased achievement performance (level) of structural components of the education system, occurs a transition to a qualitatively different state» [7, p. 338]. In addressing the research problems it is important to understand the strategy of development of economic education in Ukraine.

We agree with V. Bobrytska that strategy of Ukraine's European choice is an important incentive for accelerating the system-related educational reforms, it leads to intense search of mechanisms of axiological convergence of national platform of education system with the ideas and value-related

attitudes which have been worked out by the European community for its historical evolution. Therefore, Bologna reforms needed innovations to be implemented not only in the field of information and technology platform of education, but also in the organization of the education system of Ukraine, including economic one, with the purpose to prepare for the obvious and inevitable process: the integration of national education systems into a united European educational area [3, p. 17]. Based on the reasoning formulated by the scientist, we can conclude that the European vector of development chosen by Ukraine, clearly and explicitly defines the direction in shaping the national educational policy in training the future economists with the new economic thinking, without which the introduction of innovative model of economic education in Ukraine is likely to be a failure. We believe that an essential element of this model is the use of virtual learning in higher economic institutions of the country, including business simulations to gain experience in modeling the real economic environment.

The next research step to take by the author of this article is to identify the essential meaning of the notion *«business simulation in higher economic education» being innovative computer programs that model the real economic environment and enable future professionals in the economy to acquire knowledge and skills to do entrepreneurship and run business in order to practically apply them in both the virtual learning and in performing the real professional activity.*

It should be noted that computer simulations originally appeared as part of the gaming industry and then they got recognition from the scientists and practitioners at universities as a kind of online training programmes, particularly in the economic sphere.

The study of the works of scientists confirms that the problem of virtual learning methods at modern universities is extremely important. Thus, scientists single out the following characteristics of virtual teaching methods: flexibility, modularity, parallelism, completeness of information access, cost, technological, social equality, internationality, cognitive orientation, the objectivity of the diagnostic results, humanity. According to O. Nozhovnik, in the training process of the students majoring in International Economics at the universities, modelling (simulating, imitating) the professional activity of students is a promising

technology that best promotes formation of their professional background [4, c. 85].

For better understanding the peculiarities of the implementation of business simulations in the training process of the economists at universities in Ukraine we are to use the experience of the Academician Yuriy Bugay International Scientific and Technical University (MNTU).

We note that in this institution professional training of future specialists in Economics is carried out in: 1) the field of «International Economics» specialty «International Economic Relations»; 2) the field of «Accounting and audit» specialty «Accounting and Taxation»; 3) the field of «Finance and Credit» specialty «Finance, Banking and Insurance».

In particular, students who study «International Economics» specialty «International economic relations» at MNTU are provided with a thorough knowledge of international and financial management, international finance, marketing, international problems of economic development strategies, practices of international activity management. In training of future professionals studying at MNTU to gain a degree in the field of «Accounting and audit» specialty «Accounting and Taxation» the emphasis is made on the acquisition of knowledge and skills in accounting and auditing in the areas of economic activity, banks, fiscal institutions and in financial, tax and management accounting, auditing, information systems and technologies of accounting, business planning and budgeting.

Students of MNTU who gain the degree in the field of «Finance and Credit» specialty «Finance, Banking and Insurance», are provided by the teaching personnel with knowledge of economic theory, the theory of finance and banking, the world economy and international economic relations, management, marketing, forecasting and planning in market conditions, pricing, statistics, accounting and audit, economic analysis. It is practical skills that the future economists may acquire in the educational process with the use of business simulations being innovative computer programs that model the real economic environment.

Business simulations which are in the information availability and tested by the domestic and foreign institutions seem to be promising for creating an innovative model of economic education in Ukraine [5], namely: «Development of a convincing business plan (for different companies)»,

«Distribution of financial flows of various company types», «Financing risks», «Recreation loss-making enterprises», «Computation of optimal management models for different types of companies», «Study of demand and finding a niche for goods», «Different approaches to restructuring», «Anti-competitive policy of an enterprise», «Effective PR-action of the company / product», «Import-export operations and international commercial procedures» and so on.

These and other business simulations are currently used and have a significant potential of the development in the practice of interactive teaching of entrepreneurship at higher economic education in Ukraine.

It is likely to be crucial in this context, first of all, practical orientation of the techniques as the basis for the formation of applied business competences; second, the personification of educational process in higher education establishments; thirdly, individualisation of educational trajectories of forming the future specialist in Economics; fourth, methodological validity of the approaches based on their availability, usability, compliance with the professional needs of students. However, as evidenced by interviewing students majoring in Economics, future professionals recognize as a benefit of business simulations the opportunity to practise the occupation-related typical management functions even during the process of gaining education (eg., monitor the progress of operations at a virtual plant or try oneself in the role of CEO of the virtual business, etc.).

The survey conducted with the teachers convinces that with the application of business simulations they are provided the opportunity to assess the level of development of students' management skills and, if necessary, make the corrections to the scientific and methodological conduct of educational process [9].

5. Conclusions

The incorporation of online programmes in the educational process of higher institutions in Ukraine make it possible not only the creation of the working environment of the future professional-economist with high rates of its high automation, but it is promising in terms of implementing the innovative model of economic education as it provides real opportunities to students at the stage of entry into a future profession to get access to the latest innovative information in any form (text, graphics, audio, video, images, etc.). In practice, this means

access to information at a convenient for a student time, in a place where there is a computer which allows you to reproduce the economically formatted environment of any size: a structural unit, a whole firm, manufacturing branch of industry or even the whole economy of the country. Thus, business simulations being an innovative method of teaching economists in higher educational institutions create a situation as close to the real conditions and settings of the target specialists' professional activity as it is possible. Moreover, the environment of the simulator is created with the consideration of the real market rules (diminishing returns, supply and demand, additional costs, competition, «outflow» of capital, etc.).

Therefore in today's universities there is being built up an innovative environment where there are created opportunities for each participant in the educational process to implement creative, search, practice-oriented and interactive forms and methods of learning to improve the efficiency of economic education, mobility of students and the congruence of the quality of educational services with the needs of society.

To summarise the above, we are to note that the reproduction job-related situations being one of the applications of business simulations contributes to building a fairly complex algorithms through the description of optimal (normative) game behavior (which is important for the formation of the professional competence of future economists) with consideration of possible mistakes, «replaying» options for correcting and preventing them in the real professional activity in the future.

The prospects for the future scientific studies the author sees in the development of scientific and methodological guidance for the use of business simulations in the training of future economists at tertiary institutions of Ukraine with the international experience to have been taken into account for the implementation.

References

- [1] *Bobrytska V.I.* The unity of science, education and innovation as the principle of European education: historical and pedagogical analysis. V. I. Bobrytska. Education policy : philosophy, theory, practice [monograph]. Ed. V. P. Andrushchenko; Authors : V. P. Andrushchenko, B. I. Andrusishin, V. I. Bobrytska, R. M. Vernyudub and others. Kyiv, Publishing House of NPU named after M. P. Dragomanova, 2015. P. 229-243. (In Ukrainian).

[2] Bobrytska V. I. The technology of Formation of Innovative Learning Environment at Higher Educational Establishments in Switzerland: Lessons for Ukraine. *International Scientific Journal*. – Uzhgorod. 2014. Series 2(9). P. 7-17. (In Ukrainian).

[3] Bobrytska V.I. Innovation in the Educational policy of Ukraine in the development of academic mobility. V.I. Bobrytska. *Innovations in education: Monograph 3/ ed.by L. Shlossman. Vienna : «East West» Association for Advanced Studies and Higher Education GmbH, 2014. P.16-27 (180 p.)*

[4] Nozhovnik O. M. Formation of Self-educational Competency of the Specialists-to-be in International Economics in the Process of Learning Foreign Languages : Dis. Candidate. ped. Science: 13.00.04. Nozhovnik Oleg Myklaiovych. Kyiv, 2011. 340 p.

[5] Nozhovnik, O. M. Problems of Formation of Self-educational Competency of Students-economists : Theory and Prospects. O. M. Nozhovnik. *Pedagogical process: Theory and Practice [Coll. of scientific publications] Ed. 2.– Kyiv, «ЕКМО» Publishing, 2010. P. 144-153. (In Ukrainian).*

[6] Nzhovnik, O. M. Simulations as a Tool for Formation of Self-study Competency of Future Specialists in the Sphere of Foreign Economic Activity. *Education in the Sphere of Humanities and Social Sciences: Creativity and Innovation Processes: Materials of the Intern. scientific-practical. Conf., St. Petersburg, 9-10 April 2010. St. Petersburg: St. Petersburg IGO; ООО «Knizhnyi Dom», 2010. P.10–17. (In Russian).*

[7] Encyclopedia of Education. Acad. of ped. Sciences of Ukraine; Chief Ed. V. H. Kremen. Kyiv, Khrinkom Inte, 2008. – 1040 p. (In Ukrainian).

[8] Intellectual Technology Company: official website [Electronic resource]. Access: <http://www.birc.ru/index.php/education-toojs-ru/business-simulation-ru> (In Ukrainian).

[9] Aliev O.K. Business Simulations as an Innovative Method of Training Economists at Universities in Azerbaijan . O. K. Aliev Materials of the XIIth International extramural scientific and practical conference «The development of science in the twenty-first century» 16 April 2016, Kharkov. Kharkov, Scientific Information Center «Znanie», 2016. 136 p. (P. 5-8). (In Russian).

Received 10 March 2016

О.К. Алієв

Бізнес-симуляції як складник інноваційної моделі розвитку сучасної економічної освіти

Міжнародний науково-технічний університет імені Академіка Юрія Бугая (МНТУ),

Провулок Магнітогорський, 3, 02094, Київ, Україна

E-mail: Oktay_Kerim@ukr.net

У статті обґрунтовано авторську дослідницьку позицію щодо розуміння сутності понять «інновація», «інноваційна модель розвитку», визначено роль і значення інноваційного розвитку сучасної економічної освіти України як важливого чинника економічної соціалізації людей, потужний чинника у підвищенні якості людського капіталу. Автором запропоновано визначення сутнісного змісту поняття «бізнес-симуляція у вищій економічній освіті» як інноваційних комп'ютерних програм, що моделюють реальне економічне середовище та дають можливість набутти майбутньому фахівцеві у сфері економіки знання і навички з ведення підприємництва та бізнесу з тим, щоб практично реалізувати їх у процесі віртуального навчання й під час реальної професійної діяльності.

Здійснений у статті аналіз досвіду підготовки майбутніх фахівців у сфері економіки у вітчизняних вищих економічних навчальних закладах, зокрема у Міжнародному науково-технічному університеті імені Академіка Юрія Бугая (МНТУ), дав можливість автору обґрунтувати актуальність запровадження в освітньому процесі вищих економічних навчальних закладів бізнес-симуляцій. На думку автора статті, запровадження онлайн-програм в освітній процес вищих навчальних закладів України уможливають не лише створення високоавтоматизованого робочого середовища майбутнього фахівця-економіста, але й є перспективним з точки зору впровадження інноваційної моделі розвитку економічної освіти, адже надає реальні можливості студенту ще на етапі навчання у вищому економічному навчальному закладі отримати доступ до актуальної інноваційної інформації у будь-якій формі (текст, графіка, звук, відео зображення тощо). Доведено, що бізнес-симуляції як інноваційний метод навчання економістів у вищих економічних навчальних закладах створює ситуацію максимального наближення до реальних умов професійної діяльності, і водночас, середовище стимулятора змодельоване з урахуванням дії реальних ринкових законів (спадної віддачі, попиту і пропозиції, додаткової вартості, конкуренції, «переливу» капіталу тощо).

Ключові слова: бізнес-симуляції; вища економічна освіта; віртуальне навчання; інновації; інноваційна модель розвитку економічної освіти; професійна підготовка майбутніх фахівців у сфері економіки.

О.К. Алиев

Бизнес-симуляции как составляющая инновационной модели развития современного экономического образования

Международный научно-технический университет имени Академика Юрия Бугая (МНТУ),

Переулоч Магнитогорский, 3, 02094, Киев, Украина

E-mail: Oktay_Kerim@ukr.net

В статье автор предоставил обоснование авторской исследовательской позиции относительно понимания сущности понятий «инновация», «инновационная модель развития». Автором определены роль и значение инновационного развития современного экономического образования Украины как важного фактора экономической социализации людей, мощного резерва повышения качества человеческого капитала. В статье предложено определение сущностного содержания понятия «бизнес-симуляция в высшем экономическом образовании», которое автор понимает как инновационные компьютерные программы, моделирующие реальную экономическую среду и дающие возможность приобрести будущему специалисту в области экономики знания и навыки по ведению предпринимательства и бизнеса с целью дальнейшей их практической реализации в процессе виртуального обучения и перспективной профессиональной деятельности.

Проведенный в статье анализ опыта подготовки будущих специалистов в сфере экономики в отечественных высших экономических учебных заведениях, а именно в Международном научно-техническом университете имени академика Юрия Бугая (МНТУ), дал возможность автору обосновать актуальность введения в образовательном процессе высших экономических учебных заведений бизнес-симуляций. По мнению автора статьи, введение онлайн-программ в образовательный процесс высших учебных заведений Украины способствуют не только созданию высокоавтоматизированной рабочей среды будущего специалиста-экономиста, но и являются перспективным с точки зрения внедрения инновационной модели развития экономического образования. Обоснованием своей позиции автором было выбрано умозаключение о том, что введение онлайн-программ предоставляет реальные возможности студенту еще на этапе обучения в высшем экономическом учебном заведении получить доступ к актуальной инновационной информации в любой форме (текст, графика, звук, видео изображение и т.п.). Доказано, что бизнес-симуляции как инновационный метод обучения экономистов в высших экономических учебных заведениях создает ситуацию максимального приближения к реальным условиям профессиональной деятельности, и в то же время среда стимулятора смоделирована с учетом действия реальных рыночных законов (убывающей отдачи, спроса и предложения, прибавочной стоимости, конкуренции, «перелива» капитала и т.д.).

Ключевые слова: бизнес-симуляции; виртуальное обучение; высшее экономическое образование; инновации; инновационная модель развития экономического образования; профессиональная подготовка будущих специалистов в сфере экономики.

Aliyev Oktay. Lecturer.

Academician Yuriy Bugay International Scientific and Technical University (Kyiv).

Research area: comparative higher economic education, vocational training of the economists-to-be; Training of the economists Azerbaijan.

Publications: 7.

E-mail: Oktay_Kerim@ukr.net