

They also supported the claim that the Internet is conducive to the improvement of the quality of student service (Poland - 95%, the Ukraine - 86%). While the statement that the Internet allows a better understanding of students' needs was not obvious to 47.2% of the respondents in Poland, 60% of the Ukrainian respondents found it true. The results were basically the same for the claim that the Internet strengthens the feeling of ties between the school and its students. While the Polish respondents (43%) chose the 'difficult to say' option, the Ukrainian ones (47%) supported it.

As for the question whether the Internet allows to acquire detailed information on the current and potential students, the majority of the respondents in both the countries (48% and 53%, respectively) found it true. 84% and 77% of the Polish and the Ukrainian students of higher education institutions, respectively, ticked 'agree' next to the claim that the Internet supports the introduction of new elements of the educational offer to the market. The last point subject to evaluation was the claim that the Internet is a medium that stimulates the sales of educational services. Both the Polish and the Ukrainian students found this statement correct, yet a significant disproportion was observed (95% of the former and 66% of the latter).

Marketing activities should be considered systemically: first, through a marketing analysis of individual elements, then through a marketing synthesis, where the components are combined. This process constitutes the basis for integrated marketing management, including higher education institute management. The results of the study reveal that the Internet is an important element of the marketing activity of higher education institutions in both Poland and the Ukraine. There is general awareness of the potential of this tool, used not only as a channel of marketing communication. Still, not all the virtues of this medium, in particular in the field of gaining information on present and potential students, are fully recognized.

The results presented are yet to be analyzed in more detail and call for a broader discussion. Part of the research was conducted under the international research project entitled "the Internet in the marketing activity of higher education institutions" and the results obtained will constitute the subject matter of separate publications.

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COMMERCIALIZATION OF R&D ACTIVITIES AS WAY FOR SUCCESSFUL DEVELOPMENT OF UKRAINIAN UNIVERSITIES

The development of higher education in Ukraine, in accordance with meeting the Bologna process requirements and knowledge society's new challenges, needs more financial resources. However, we observe decreasing level of state financing for higher education. A modern university is in its way of searching additional resources for raising the money.

In modern economic conditions commercialization of educational services is a reasonable way for increasing financial potential of higher education institutions. R&D activities provided within universities can also be an efficient source of funding. According to the Law on Science and Scientific and Technology Activities "scientific and R&D activities in higher educational institutions are an integral part of educational activity and are carried

out in order to integrate scientific, educational and production activities in the system of higher education” [5]. New legislation of Ukraine, such as the Law on Higher Education and the Law on State Regulation of Activities in the Field of Technology Transfer, the Law on Science and Scientific and Technology Activities, regulates and facilitates commercialization of R&D activities at higher education institutions.

The process of commercialization of R&D activities of Ukrainian universities is under consideration of Ukrainian scientists, among them there are significant research papers done by T. Boholib, P. Bubenko, V. Denysuk, V. Menyailo and others. Foreign scientists also actively investigate different issues of commercialization of research results and R&D activities (M. Karlsson, J. Sandelin, M. Schankerman, P. Druker, etc.).

The main aim of our research work is to analyze the process of commercialization of universities’ R&D activities by realizing the most perspective ways successfully adapted in the developed countries.

Nowadays, commercialization of R&D activities of Ukrainian universities is considered as one of the significant way for their further development, especially in conditions of reducing state financing. Ukrainian universities to be admitted as science and research institution has to meet requirements which are mostly based on R&D activities, appropriate amount of science and pedagogical staff, scientific publications cited in scientific journals with impact factors, etc. But only some of the research results and developed technologies are disclosed for potential commercialization. To change such situation in the area of higher education it is important to study foreign experience of the countries where the process of commercialization of research results has growing indicators.

While analysing the foreign experience in commercializing research results we found that the most efficient way in this process is to establish new companies around major universities. For instance, during financial year 2001, including both U.S. and Canadian research institutions, at least 494 new companies were created based on academic discoveries, 84 percent of them were established in the same state/province of the academic institution that created the technology. Academic institutions received an equity interest in 70 percent of their start-ups [4, p. 36]. The Ukrainian universities may also take an equity position in the start-up company after obtaining the rights to results through a license agreement.

One another way for realizing universities’ commercialization of research results is business incubation industry which is mostly well-developed in the USA where academic institutions are the most common incubation program sponsors. Business incubators offer different services, among them mentoring R&D activities, access to office space, research facilities and manufacturing equipment, offering entrepreneurs access to in-house investment funds, assistance with product designs and loaned executives to manage their companies.

There are four stages for commercializing R&D activities: 1) searching scientific developments, their expertise (assessment of commercial opportunities) and selection; 2) involving investments and other sources of financing; 3) distribution of rights to the future intellectual property and their legal consolidation; 4) introduction of scientific development into production; and if it is necessary - modification and refinement of scientific development; intelligent product support [2, p. 44]. The successful performance of every stage requires involvement and cooperation of different interested parties: individual scientists, universities, government agencies, entrepreneurs and businesses.

One of the important steps for the intensive process of commercialization of research results at universities is to change their organizational structures especially scientific and research departments by creating new units such as innovation and transfer department or centre for technology transfer. Gdańsk University of Technology has a Center for Knowledge and Technology Transfer that provides support to researchers of the University in the field of 1) verification of grant applications (managing intellectual property in projects, developing strategies to protect intellectual property, establishing business principles of division and exploitation of intellectual property generated in the course of the project, concluding

agreements and consortia contracts with industrial partners), 2) Sharing the rights to the results of research conducted by the staff of the University, 3) implementation of research projects and services for corporations and institutions, 4) creation of spin-off companies based on research results of the University in collaboration with Excento [1].

It is worth mentioning that without individual incentives of each researcher, being involved in R&D activities with further commercialization of his/her investigations, it will be very difficult to achieve high scientific results and incomes. For example, researchers at Stanford University receive one third of net royalties from the licensing of their inventions, because economic incentives such as royalty sharing agreements, affect the number of produced inventions and licensed revenue generated by universities which providing higher royalties to their researchers trigger more inventions and higher license incomes [3, p. 36]. In the event of commercialization of the invention or innovation by Gdańsk University of Technology, the authors get 50% of the profit from commercialization.

To draw the conclusions from these results we should point out that commercialization of R&D activities at Ukrainian universities could be an effective way for raising additional funds. Ukrainian research and scientific universities with a great number of science and pedagogical staff have to establish a strong national technology-licensing infrastructure to support the commercialization of their research results. Besides, they have to create incentives for researchers in order to motivate and increase their interests in carrying out investigations for their further licensing to industry or producing. Universities should be interested in establishing innovative firms, business partnerships, engineering centers, educational innovation institutions, science-intensive venture structures, as well as, business incubators and technology parks. Their activities and services are proved to be an efficient mechanism for the future successful development of universities.

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INTERNACJONALIZACJA DZIAŁALNOŚCI INNOWACYJNEJ POPRZEZ FORMACJĘ KLASTRÓW TRANSGRANICZNYCH

Większość uprzemysłowionych krajów świata dzisiaj zawdzięcza długoterminowemu zrównoważonemu wzrostu gospodarczemu w wyniku przejścia na innowacyjny sposób rozwoju. Działalność innowacyjna wymaga publicznego wsparcia o najwyższym priorytecie. Państwo powinno być zainteresowane w promowaniu działalności innowacyjnej przedsiębiorstw krajowych, ponieważ wtedy będzie miał większe szanse, aby osiągnąć nowy poziom rozwoju gospodarczego w gospodarce narodowej.

Doświadczenia zagraniczne i krajowe pokazują, że najskuteczniejszym sposobem aktywizacji innowacji w gospodarce narodowej jest podejście klastrowe do wdrażania polityki innowacyjnej. Dziś polityka klastrowa i tworzenia klastrów w gospodarce narodowej zajmują jedno z centralnych miejsc w nowoczesnej ekonomii, a klastry są integracyjną formą