## Modernization of Higher Education in Ukraine: Problems, Pitfalls and Attainments

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## Abstract

On its way to European integration, Ukraine is redesigning its higher education system to conform to the standards of the Bologna Declaration and to ensure better quality of education and higher competitiveness and employability of its university graduates. In the course of this transformation, some old values have been lost and new ones acquired, but the formal restructuring of the system has not yielded the expected quality outcomes yet. The article looks into some problems encountered by the Ukrainian universities in the process of modernization as well as innovative ways some schools have found to rectify the negative outcomes of the reform. The article is prepared with cooperation of GIPOprom, the leading institute for training and retraining industrial personnel in Eastern Ukraine, and its president Dr. S.T. Pliskanovskiy.

Having become a separate independent country in 1990, Ukraine, one of fifteen former union republics, has inherited a lot — for better or worse — from the Soviet Union. One of the indisputably beneficial legacies was the system of higher education, the scope of which puts the country into the top ranks of the world community. Thus, in the Global Competitiveness Report 2010-2011 by the World Economic Forum, Ukraine, with its 904 institutions of higher education, occupies the 9<sup>th</sup> place in terms of the percentage of population pursuing higher education among 133 surveyed countries, being ahead of the USA, Finland, Denmark, New Zealand and other developed countries (WEF, 2011). The quantitative index of higher education in Ukraine is not however paired with the qualitative one. While in the areas of mathematical and natural sciences, the country holds the  $49^{th}$  and  $41^{st}$  places correspondingly, being still ahead of the USA, Germany and Russia, the quality of education in management and economics shows significant lag behind the world standards ( $95^{th}$  and  $93^{st}$  places accordingly). These data reveal the unsatisfactory state of educational services in Ukraine and sanction thorough improvement and modernization of higher education, the processes for fifteen years dominating the educational scene of the country and radically transforming its intellectual and professional landscape.

Since the mid–90's, Ukraine has started a process of gradual integration into Western European society, with the ultimate goal of becoming a member of the European Union. This has resulted in the comprehensive restructuring of higher education to make it conform to the standards of the European educational and scientific environment, which are guided by the principles and norms of the Bologna Accords. The purpose of the Bologna Process is the creation of the European Higher Education Area by

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making academic degree standards and quality assurance standards more comparable and compatible throughout Europe, in particular under the Lisbon Recognition Convention. It is named after the place where it was proposed, the University of Bologna, with the signing in 1999 of the Bologna Declaration by Education Ministers from 29 European countries. The Bologna Process currently has 47 participating countries, whereas there are only 27 Member States of the European Union. While the European Commission is an important contributor to the Bologna Process, the Lisbon Recognition Convention was actually prepared by the Council of Europe and members of the Europe Region of UNESCO (Wikipedia, 2007). The basic idea behind all EU educational plans is economic: to enlarge the scale of the European systems of higher education and to enhance its competitiveness by cutting down costs (Lorenz, 2010). With a Europe-wide standardization of the "values" produced in each of the national higher educational systems, participation in the Bologna Process means recognition of educational diplomas within the common European area and ensuring a higher mobility and employability for all graduates from participating countries.

In Ukraine, under the system inherited from the Soviet times, the institutions of higher education were of two types — universities, which provided higher education in many fundamental and practical areas and conducted research, and institutes specializing in particular fields of knowledge or industry (medical, metallurgical, mining, pedagogic, etc.). Most of them offered undergraduate degrees following five years of study, after which graduates were conferred diplomas of higher education, allowing them to be employed in a corresponding trade. Those graduates, who excelled as undergraduates and wanted to be engaged in research and/or university teaching, sought admission to postgraduate studies. The system worked sufficiently well for some time as it provided free, comprehensive, uniform education recognized not only everywhere in the Soviet Union but also highly esteemed in many other countries, especially those of the former socialist camp. Starting from 2005, Ukraine implemented a number of measures to make its education frameworks consistent with the Bologna Process. Now, most universities grant lower Bachelor's degree (about 4 years) and higher Master's degree (about 6 years); Masters are eligible for post-graduate courses<sup>\*</sup>. The academic process has been reorganized around credits and modules, and the European credit-transfer system ECTS has been introduced.

While it is too early to say whether this modernization has really ensured the employability of Ukrainian graduates abroad, it has definitely affected their status in the national labor market. Thus, most employers are reluctant to hire the university graduates with Bachelor diplomas, considering them to have "incomplete" higher education: four years of academic training are viewed by many as insufficient compared to five years within the former framework of higher education. Unlike Japan, where the in-shop training of new employees is the norm, the Ukrainian employers regard the lack of practical experience as a shortcoming of the four-year undergraduate education. The demand for recruits with Master's degree is much higher, but cannot be satisfied due to the shortage of such a labor force. It is considerably more costly for the state to prepare Masters, therefore certain quotas are imposed on public institutions with regard to the number of students seeking the advanced degree (generally less than 10 percent

<sup>\*</sup> The post-graduate system (Aspirantura) has not been reformed yet, with Candidate of Sciences and Doktor of Sciences degrees being granted.

of the graduating class) and selection is very severe.

One of ways to rectify this unexpected outcome of Bologna modernization was to establish an intermediate degree of "Specialist" conferred upon the completion of five years of undergraduate education. This solution, however, proved ineffective as, on the one hand, the employers' attitude to this degree was almost equally distrustful, and, on the other hand, it pushed further down the competitiveness of Bachelor's degrees. Besides, while the Bologna Declaration recognizes the validity of intermediate qualifications necessitated by some national variations, the creation of the five-year degree seems contrary to the country's aspired conformity with the European academic system. The discussion around the validity of Specialist degree is still going on; meanwhile realistic administrators and other higher education shareholders are actively looking for more effective ways to raise the employability of their Bachelor graduates. The Japanese universities, facing a similar problem, though of a different cause, may find the experience of their Ukrainian colleagues instructive and benefit from incorporating some of the suggested solutions in their own practices.

Currently, insufficient practical preparation of university graduates for workplace or complete lack of professional training is viewed by many as the main reason for the gap between the demands of the labor market and the practical outcomes of higher education. Employers and other consumers of educational products complain about the lack of professional skills within the chosen specialty, insufficient knowledge about technology and industrial equipment, prolonged adaptation time of the new workforce, all leading to low employability of graduates and the tarnished reputation of Bachelor-level education in general.

With respect to this, the modernization of higher education in Ukraine is taking another important direction, besides formal adaptation to the Bologna system. It is developing a synergy of higher education and industry, a comprehensive integration of universities, technical and professional schools, on the one side, and key employers and leading industrial enterprises, on the other. This integration follows a set of principles and norms worked out by the administrative and educational authorities:

- A corporate and cross-industrial approach towards education, where the joint efforts of educational institutions and industrial enterprises are directed towards wider incorporation of professional training;
- Multidisciplinary and interdisciplinary principles of curriculum and syllabus development, with combinations of disciplines designed to meet the current demands of the labor market;
- Innovative ways and methods of teaching (interactive lectures, educational games, think-tanks, master-classes, shadowing, field trips followed by criticism and analysis, apprenticeship, industrial practice, etc.);
- Promotion of the education-research-industry synergy, with research carried out by students and teachers focusing on the current industrial needs and problems, such as industry-based and industry-related graduation theses and postgraduate dissertations, research projects commissioned by industrial enterprises and companies, etc.;
- Diversification and individualization of undergraduate education, where individual needs and abilities of students are matched with the requirements of different jobs and positions;
- A feedback principle, requiring educational institutions to monitor and analyze professional per-

formance of their graduates in order to revise and correct academic courses and programs;

• A visionary approach, the ability of higher education to project technological and industrial progress and be ready to offer programs, which meet future needs and perspectives of employers; etc.

(Kolisnichenko, 2001)

In line with education-industry integration, the universities try to engage employers in a meaningful dialogue regarding the scope of basic skills and competencies, required from the holders of Bachelor diplomas. One successful example of such dialogue is the "Discussion Club," started in 2009 by the System Capital Management Company. The regular sessions of this club serve as an open platform for professionals and educators to discuss various aspects of market-education relationships. The "consumers" of educational products, top managers of business and industry, are also increasingly involved in work of curriculum review committees, certification commissions and other academic bodies, responsible for educational quality management. Leading industrial professionals and businessmen are invited as guest speakers to give lectures and conduct seminars, workshops and master-classes. Different forms of financial sponsorship are also pursued, from commissioned research to donated or discounted products and services, to direct investment in schools and research centers (Pliskanovskiy et al., 2009).

One form of such direct investment is the original educational programs commissioned by big companies and designed to meet their particular needs. These programs have direct practical orientation and allow training and retraining a company's staff within the shortest possible time. The most effective teaching methods used by such programs are case studies and business games. Research shows that a three-day full-immersion business game proves to be more effective than a semester-long lecture-seminar course (Palkin, 2009). The effectiveness of such industry-education integration is proved by the successful implementation of the corporate educational programs run by Donezk Polytechnic University to the order of two metallurgical giants, Azov Steel and Mariupol Metallurgical Company. A larger-scale education-research-industry complex has been implemented in another industrial region of Ukraine, Dnepropetrovsk, where GIPOprom (State Institute of Training and Retraining of Industrial Personnel) in partnership with National Metallurgical Academy prepares specialists for four leading industrial conglomerates, the titans of the national heavy industry (Pliskanovsky et al., 2009). Such corporate programs are more cost-effective than standard university ones, while their graduates show better performance, shorter adaptation and faster career progress.

Integration of universities and industry is one of the powerful ways to improve the quality of education and professional preparation of bachelors and ensure wider recognition and employability of 4-year degree holders. However, many argue that the number of years spent in higher education is not that important after all, since other skills and qualities are required in the modern world of changing technologies and market mobility. The purpose of higher education has now shifted from delivering knowledge to developing the ability of searching and finding new knowledge, a requisite for life-long autonomous learning. The competencies which are currently required from university graduates include, among others, independent, innovative and creative thinking, the ability to quickly adapt to changing or new circumstances, the ability to identify a problem and effectively solve it, and the ability to search, retrieve, evaluate and utilize information for personal and professional purposes. The development of such competencies is achieved through students' individual and independent work, the share of which is 50-60% of total study time, according to the Bologna framework. It is a significant shift from the traditional lecture-seminar delivery mode of the Soviet school, and such a transformation is not easily done or eagerly accepted by all participants of the academic process. Thus, the survey carried out in Donetsk University showed that two thirds of respondents (both teachers and students) were against the reduction of classroom time in favor of individual work. The increase of independent and individual-study credit time was hailed by teachers (70%), but rejected by 60% of students who view this revision of syllabus negatively and consider it as a failure of the institution to deliver proper teaching services. Both groups agree that such restructuring of study time makes the academic process too intense and learning too superficial (Pliskanovskiy et al, 2009).

The reason for this ambiguous, if not openly negative, attitude towards the increased role of independent study in the Ukrainian academy is evidently the lack of knowledge, experience and technology to organize this work effectively. Independent study, like many other aspects of Bologna transformation, falls a victim to yet another government campaign where the process itself is more important than its result. Critics indicate that modernization of higher education in the country to a great extent follows the path of close imitation of formal attributes of the Bologna process, such as rating and credit-module system, without a thorough, in-depth transformation of teaching and learning. While the Bologna Process encourages the autonomy of educational institutions, which, in its turn, allows flexibility of academic services and their effective adaptation to changing social and economic requirements, the government of Ukraine closely monitors uniformity and strict adherence to its regulations. It does not tolerate free enterprise and healthy market competition in the area of educational products and services. At the same time its financial support of higher education is rather meager. For comparison, the cost of preparation of one student in the USA is 36,500 euro, but in countries of the European Union it is 8,700, and in Ukraine, 1, 400 (WEF, 2011). State allocation for education in Ukraine was only 5.7% of the national budget in 2007, which is much below what modern education requires to keep in pace with information technology progress and new demands for a contemporary workforce.

So at this point, it is possible to conclude that the first stage of integration into the common European educational system is almost complete. All institutions of higher learning have gone through rating, accreditation and attestation according to the Bologna Protocol. All syllabi and curricula were overhauled to match the Western credit-module system. New system of independent testing has been introduced, and the structure of independent and individual work thoroughly revised. Restructuring and adaptation of European norms have, however, brought mostly negative results and have not brought so far the targeted fundamental improvement of quality of education. With all formalities observed, now it is time for universities to address the content of education and modernize approaches to and methods of teaching and learning. Our prediction is that the number of institutions of higher education will significantly decrease, with the strongest ones seeking autonomy and more freedom to be able to secure alternative funding, design their own programs and compete for better students. Only in this context, the Ukrainian universities will produce quality specialists able to meet the demands of national employers and successfully face competition in the international labor market.

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