HIGHER EDUCATION REFORM OF WESTERN BALKANS COUNTRIES WITH TRAFFIC, ECOLOGY AND SUSTAINABLE DEVELOPMENT (Keynote paper)

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Summary: Countries in the Western Balkans subregions have been in transition for more than two decades, with the implementation of the EU accession project being their top priority. The concept of European integration implies a radical transformation in all spheres of society, where highly qualified human resources are the basic driving force behind all positive changes. Human capital and knowledge have made a decisive contribution to revolutionary innovation. Higher education aligned with postmodern tendencies is an essential foundation of development with relevant implications for the future of each creation. Transport and the environment designate areas with drastically disrupted parameters in all competent dimensions of sustainable development. Higher education reform must, among other things, be in the function of improving transport, the environment and implementing a sustainable development strategy.

Keywords: higher education reform, human resources, transport, ecology, sustainable development, European Union, Western Balkans.

INTRODUCTION

The last decade of the twentieth century has witnessed the beginning of a period of globalization, characterized by global competition, the penetration of world market standards and the international orientation of all organizations. Globalization is a set of different processes that basically have the idea of developing and connecting the world. It can be viewed from different angles, so it is often defined as a concept, form and phenomenon that involves multiple and drastic changes in all dimensions of life. It has the ability to create change and to involve the whole world in those changes. The fact is that fewer and fewer benefits are being drawn today from traditional resources: labor, land and capital. **The main producers of wealth of the present have become human knowledge and timely information**, leading to revolutionary changes in many fields, including in higher education. In developed countries, the focus of employee activity is shifting from material processing to information processing, which has a major impact on the education process. **In a globalized world, higher education has become a pillar of society and its future depends on its quality.** However, for education to be productive and quality, it must accompany the accelerated changes in daily life. It is quite clear that knowledge has become the most important potential in today's world, and the development of information and communication technologies has contributed to the increasing reliance of the entire planet on this "intangible" resource. The emerging situation, which entails modernization of governance and leadership, increasing demand for education and research, connectivity and networking, has imposed new challenges for the countries of the Western Balkan region, all of which have a common goal - joining the European Union. The region's interest is evident in its own development and strengthening of ties with Europe, where higher education can play a significant role in this process. The higher education system must be conceptualized and aligned with the issues of transport, ecology and sustainable development. This is achieved by creating appropriate curricula and involving the members of the academic community in the concrete resolution of the manifested anomalies in the stated spheres of society.

1. HIGHER EDUCATION REFORM IN THE WESTERN BALKAN STATES

Globalization, as the largest planetary phenomenon reflected in megatrends, has a major impact on education, since research into science and education is actually research aimed at finding a new key to the development of a country. Developed countries are most concerned with science, education and teaching, as the key to success. In the modern world, more and more money is being allocated for the development of science, education and staff. Globalization in education involves several key factors, among which the most important are: encouraging lifelong learning and modernizing educational institutions through the use of state-of-the-art learning tools and techniques (Neskovic, 2016). The focus of the teaching should be on the students, not the lecturer. Instead of listening to pre-prepared lectures, students should be active participants in the process. In doing so, they are encouraged to think critically and creatively, to solve problems and to apply knowledge in real life. The consequence of such learning is the knowledge that lasts and is the right preparation for future life and business challenges (Nešković, Jovanović, 2017).
Criteria that modern education must meet:

1. Quality, complex and comprehensive education, which involves a creative blend of theory and practice, as well as a fusion of

concrete applicable knowledge with general education.

2. High level of professionalism of lecturers, not only in the sphere of a specific subject, but also in all spheres that are dominant in the market.
3. Modern equipment for schools and colleges, especially when it comes to IT equipment.
4. A modern educational institution should **encourage and develop** those **talents of students** who, taking into account their individual characteristics and preferences, will be most useful and profitable in the future in practice. If every student's faculty develops exactly what he or she is most talented for, they will create top experts in many fields.
5. **Creative teaching**, as one of the priorities of modern education, aims to enable students to effectively acquire knowledge through the use of multimedia content, because only through such learning do students actively prepare for the fusion of theory and practice and are in the process of changing the development of new technologies in daily life.
6. Modern education requires **as many concrete examples as possible, lots of realistic projects, exercises and practices,** because - learning from books only widens students' perspectives and provides them with the necessary information, but it will not be very helpful when they first enter the real work environment.
7. **Students should be educated in a "harsh" environment** (closest to reality), as this will prepare them for what is expected of them in the real world, outside of the classroom.
8. New education implies **from the roots a changed role of the professor**. Instead of teaching professors, they now take on the role of coordinator, who is there to accompany students in their individual or group work. The professor has a responsible role to teach students, but in modern education he has an even greater responsibility - to motivate them to go through the learning process on their own, to deepen and connect their knowledge themselves, to research and come to conclusions.
9. Modern education **must develop** in interaction with **science, technology and culture** and draw on it knowledge and inspiration.
10. The number of criteria that society expects from modern education is constantly increasing day by day, and the future will require the fulfillment of even more complex requirements.

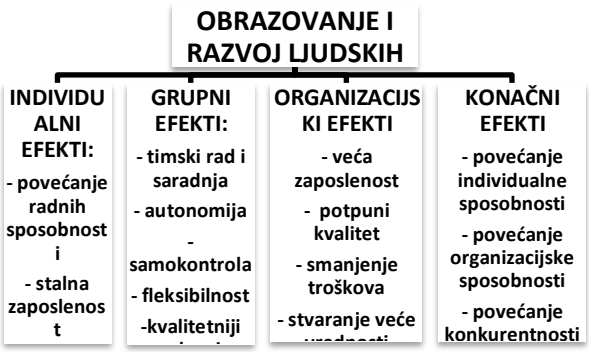

Figure 1. Effects of modern education
Source: Image is the result of an author's research work

The importance of knowledge in human life, living and acting is increasing. It contributes to the expansion and deepening of human knowledge and cognition, improving practical action in all areas of human interest, faster and easier business operations, managing business processes and saving available resources, fuller realization of human rights and freedoms, participation in social and state decision-making and directing the path into the

future. All this affects the motivation of the individual and each community in acquiring more knowledge and developing information and communication skills and culture, especially since information and communication knowledge becomes one of the main conditions for advancement in business, in the profession, in every field of human and economic activities, that is, in the life and work of each individual and community (Barlett, Uvalić, 2013).

The European initiatives of major importance for the higher education of the Western Balkan countries are the Bologna Process, the Lisbon Strategy and the Europe 2020 Document (Neskovic, 2018). In order to secure a sustainable development and a secure future, in 2000 the European Union adopted a development strategy known as the Lisbon Strategy with the strategic goals of making the EU the most competitive and dynamic economy in the world by 2010, knowledge-based and capable of achieving a sustainable economic growth. A key component of this strategy was the development and advancement of knowledge, which entailed greater investment in education and training, scientific and technological research and innovation. However, some of the strategic goals of the Lisbon Strategy have remained unfulfilled, so the EU has begun the process of creating a new strategic framework that has resulted in the Europe 2020 document: a strategy for smart, sustainable and inclusive growth, which aims at EU-based economic development based on sustainability environment, high levels of employment, productivity and social cohesion (Nešković, 2014).

Education is one of the central themes of this strategy, and involves the use of alternative instruments and mechanisms in the implementation of EU policies, such as the Lifelong Learning Program, Tempus, Erasmus Mundus and others. The strategy outlined five goals, two of which relate directly to higher education and research: min. 3% of GDP should be earmarked for R&D; at least 40% of the younger generation should have a tertiary education or diploma; the proportion of adults (30-34 years of age) with tertiary education should be at least 40%; on average, at least 15% of adults should participate in lifelong learning. This strategy is not only important for EU Member States, but also represents a significant potential for EU candidate countries to which all Western Balkan countries belong, except Croatia (Naidoo, 2012).

The 1999 Bologna Declaration refers to the reform of the European higher education system and underlies the Bologna Process, which includes: adopting a system of recognizable and comparable degrees, adopting a system based on three main study cycles (basic, master and doctoral studies), the introduction of the ECTS (ECST) points system and diploma supplement, improving the mobility of students, teachers and researchers, ensuring the quality of higher education, developing comparable curricula, interinstitutional cooperation, mobility schemes and integrated study, training and research programs. All of these instruments aim to facilitate employment by recognizing the knowledge and competences of graduates across Europe. The ultimate aim of the declaration is to create a single European educational space in which lecturers, researchers and students will be able to move easily and quickly. By joining the Bologna Process, the countries of the Western Balkans have assumed the obligations of this declaration. From a broader, Euro-integration perspective, this implies implementing the necessary higher education reforms in these countries in order to position their universities at European and international level and improve their own quality and competitiveness.

The Lifelong Learning Program is a cooperation program in the field of

European Union education that supports the development of all levels of education. For the time being, Western Balkan countries can participate in certain types of projects only if their educational institutions offer expertise in the subject area of the project and thus contribute to achieving the best possible results. As the LLP is one of the main sources of funding for the development of education in the EU, it is very important that the educational institutions of these countries begin preparations for full participation in this program in a timely manner.

Tempus (Trans-European Mobility Scheme for University Studies) is an EU program that helps reform and modernize higher education in partner countries and is one of the oldest and most successful EU cooperation programs. The program helps partner countries' education systems to gain unobtrusive acceptance of EU higher education development trends stemming from the Lisbon Agenda and the Bologna Process and funds projects involving higher education institutions from the EU and more than 20 partner countries. The Tempus Program was started in 1990 with the main objective of modernizing the higher education sector and facilitating institutional cooperation with Central and Eastern Europe. Yugoslavia joined the Tempus program almost immediately after its inception (in 1991), however, political developments in this area interrupted this cooperation and it took a long time for the newly independent states to rejoin the program.

Erasmus Mundus was launched in 1987 and is a program to support cooperation and mobility in higher education through the promotion of the highest quality European masters and doctoral programs. The program aims to improve the quality of higher education and intercultural understanding through cooperation with partner countries (non-EU countries). It seeks to increase the attractiveness and recognition of European higher education around the world and the European Union as one of the centers of excellence (Neskovic, 2013). The program works by giving students and teaching staff from all over the world the opportunity to participate in postgraduate studies at higher education institutions of the EU, and vice versa, facilitating the mobility of students and teachers from EU countries to partner countries. The EU provides scholarships for both nationals of partner countries who are admitted to Erasmus Mundus masters and doctoral degrees in EU countries, as well as their nationals studying at partner universities. All countries from the Western Balkan region participate in it.

Globally, countries' competitiveness issues are linked to the functioning of the World Economic Forum (WEF) and its Global Competitiveness Index (GCI). This index is based on twelve pillars of competitiveness organized into three groups. Higher education and training belong to the second group, which shows the factors of efficiency increase of the analyzed country. All data are standardized on a scale of 1 to 7 (1 - worst grade, 7 - best grade), which is also the range of possible values for all indicators, the pillars of competitiveness and even the Global Competitiveness Index (GCI). The importance that the pillars within a group have for an individual country depends on the degree of its development. With all of the above in mind, GCI could be roughly defined as a set of institutions, policies and factors that determine a country's level of productivity. The level of competitiveness expresses the capacity of the national economy to generate sustainable economic growth at the current level of development in the medium term.

Table 1: Comparative overview of socioeconomic data for 2015-2016. g Western Balkan and EU countries with the

most advanced / high quality higher education

2015/16	Number of citizens (in millions)	GDP (US $ in billions)	GDP per capita (US $)	GCI Higher Education and Training 1-7 1 (worst) 7 (best)	A place of competitiveness for higher education (From 140 countries)
Albania	**2,9**	**11,5**	**3995,38**	**4,7**	**47**
BiH	**3,9**	**15,8**	**4088,21**	**3,8**	**97**
Montenegro	**0,6**	**4,0**	**6489,10**	**4,6**	**54**
Macedonia	**2,1**	**9,9**	**4786,84**	**4,8**	**46**
Serbia	**7,1**	**36,5**	**5119,76**	**4,3**	**71**
Denmark	**5,7**	**295,0**	**52114,17**	**5,8**	**9**
France	**64,3**	**2421,6**	**37675,01**	**5,3**	**25**
Finland	**5,5**	**229,7**	**41973,99**	**6,1**	**2**
Germany	**81,9**	**3357,6**	**40996,51**	**5,6**	**17**
England	**65,1**	**2849,3**	**43770,69**	**5,6**	**18**

Source: World Economic Forum, http://reports.weforum.org/global-competitiveness-report-2015-2016/

The transition period, structural economic reforms and transformation of the economies of the countries of the Western Balkan region into capitalist ones did not evidently lead to improvement of the living standards of the population of these countries. In addition, the economic crisis has hit the Western Balkan countries hard, which has negatively affected the quality of many segments, and hence higher education. As can be seen in Table 1, some of the main features of this region are still extremely low GDP and significantly lower GDP per capita compared to the EU countries surveyed. Also, in terms of competitiveness, higher education in the countries of this region occupies very low places (from 46th to 97th) of the 140 countries that entered the WEF analysis this year. Of the Western Balkan countries, the highest GCI value in terms of higher education is Macedonia - which ranks 46th, while the lowest ranked Bosnia and Herzegovina - which ranks only 97th. In terms of higher education in EU countries, according to the WEF Global Competitiveness Report 2015-2016, Finland's highest ranking is the highest rated, ranking 2nd out of 140 countries, while other European countries surveyed ranked extremely high in terms of on this issue (9th to 25th).

Table 2. Comparative overview of public investment and human capital competitiveness rankings for 2016 g of the Western Balkans and EU countries with the most developed / top quality higher education

2016	Part of GDP allocated to education	A place of competitiveness for human capital

	(%)	(from 130 countries)
Albania	**3.5**	**70**
BiH	**/**	**/**
Montenegro	**/**	**/**
Macedonia	**/**	**59**
Serbia	**4.4**	**57**
Denmark	**8.6**	**7**
France	**5.5**	**17**
Finland	**7.2**	**1**
Germany	**5.0**	**11**
England	**5.7**	**19**

Source: World Economic Forum, http://reports.weforum.org/human-capital-report-2016/

Table 2 shows the WEF data from the 2016 Human Capital Report comparing the Western Balkan countries with the EU countries with the most advanced / top quality higher education. State investments in higher education are presented as well as the rank of competitiveness of human capital, which is directly derived from the level of development of higher education. As can be seen, in the 2016 WEF analysis. only Albania, Serbia and partly Macedonia are taken from the Western Balkans countries, which allocate extremely low percentages for higher education from their GDPs, and therefore the competitiveness of their human capital is low on the competitiveness scale (57, 59 and 70 respectively). 130 countries). Unlike the comparable EU countries whose higher education is considered to be of the highest quality and whose human capital is at the top in terms of global competitiveness (1-19 places out of 130 countries analyzed), this was directly influenced by the high percentages of GDP that these countries allocate for their education systems. It is clear that public investment in higher education is the key to its success and competitiveness.

The numerous changes brought by the era of globalization bring new challenges for companies and countries in terms of maintaining competitiveness, and the future will require the fulfillment of even higher quality requirements. Contemporary global markets are based on completely new competition rules, resulting in changes in the strategies of companies and countries. In order to create and improve competitiveness, the focus on investment in intangible assets is clearly emphasized today. Science and technology are embedded in the foundations of every modern society and permeate all aspects of human life, and the ever-accelerating scientific and technological progress and development in the field of information technologies emphasize the importance and role of human capital. In a "knowledge society", competitive advantage is based on human knowledge and the exploitation of potential opportunities and opportunities for the realization of which human knowledge is necessary. The key factor for improving competitiveness today is human capital, which is increasingly reaching up to 90% of the value of firms, which is a confirmation that knowledge, competences and skills are crucial for a positive competitive position. Land, capital and equipment no longer play a decisive role in the world market. Individuals, companies and even states are increasingly dependent on how they develop their skills and apply their knowledge to achieve their goals.

2. IMPLICATIONS ON TRANSPORT, ECOLOGY AND SUSTAINABLE DEVELOPMENT

The essential role of the higher education system in the Western Balkan countries is to address the negative trends and problems in all areas of human existence. This implies the connection of the academic

community with all spheres of society in the context of finding the most optimal solutions that manifest and hinder the realization of development projects and the inclusion of states in the family of developed countries. The task of science and academic structures is to provide competent answers to all contemporary challenges. Transport and ecology are fields that represent scientific disciplines and professional activities. Accordingly, the higher education system must be directly linked, that is, incorporated in the field of transport, ecology and the concept of sustainable development. This is realized by creating relevant teaching content in the work programs of institutes, colleges and colleges in all study cycles. In addition, it is necessary to ensure the involvement of academics in the aforementioned areas in the conception of strategic documents and implementation of projects at all levels of organization, especially in the context of the requirements of European integration.

The transport development so far has been directly in the function of expanding the infrastructure and transportation industry, especially the automotive industry. Postmodern trends in the development of economy and society, according to theorists, change the concept of traffic and transport development. On the stage there is a so-called. the fifth traffic revolution, that is, the era of personalization and individualization of traffic. This trend is devastatingly devastating current settings and threatening the basic postulates of environmental and sustainability in the broadest sense. The syntagm of sustainable development, which terminologically positions itself with the Rio Declaration and Kyoto Protocol of the 1990s, is based on the concept of economic growth, determined by economic equilibrium and social progress. (Steven, Bradley, 1995).

Although the idea of sustainability has been rudimentally sketched since the so-called. The first "ecological revolutions" of the early 1960s owe their sustainability, today's significance, to the World Environment Conference, held in 1992 in Rio De Janeiro. According to documents from that conference, sustainable development means qualitative growth, ie development. socioeconomic and cultural developments that are aligned with environmental conditions, constraints and capacity, which should take place in such a way that future survival is not impaired. However, it has quickly emerged that the general principles and categories of the sustainability paradigm are not directly applicable in the preparation, decision making and implementation of strategic development decisions. It is necessary to operationalize (concretize) them, so that they express the criteria and contents of a specific historical-geographical space that encompasses a given planning area and the people who inhabit it. This is where the controversy over the various and different meanings of sustainability originates. Namely, everyone agrees more or less on the interpretation of the concept, general principles and criteria of sustainability, while most often there are different interpretations regarding sustainability at the expense of some others, in which interest aspects play a minor role (Nešković, 2014).

Today, there are serious problems with the implementation of the idea of sustainability, which is reflected in the predominance of neoliberal aspirations over the general interests of humanity and the demographic appearances of politicians who merely declare themselves committed to the principles of sustainability. In line with the "think globally act locally" thesis, proponents of sustainable development theory believe that its principles can be realized if they are first applied in the local environment, and at some later stage sustainability can take over the entire planet. Sustainability strategies should be implemented by nation states, their constituent regions, individual settlements - cities and villages, and even neighborhoods. What is significant is that

sustainable urban development is just coming from developed neighborhoods that have been implementing it for years. In this way, the ideal of sustainability is spread around the world and humanity becomes aware of environmental sustainability. In order to achieve urban sustainability, rational and efficient land use is required, with particular emphasis on the conservation of green spaces. In addition, environmental sustainability is aided by the efficient use of resources achieved through the recycling and proper storage of industrial waste, both large and small companies, and the use of household appliances that save relatively little energy.

Sustainability can be ensured through efficient use of energy and the use of alternative energy sources (Neskovic, 2014). In order to reduce energy loss and increase energy efficiency, the following measures are being implemented: insulation of heated space, replacement of worn-out joinery in heated rooms, replacement of energy-inefficient consumers with efficient ones, installation of metering and regulatory devices for energy consumers, replacement of non-renewable energy sources with renewable energy and introduction tariff systems by distributors that will encourage energy savings. Research results show that representatives of local authorities see the importance of solving the problem of environmental protection behind the problem of unemployment, health and social care and infrastructure construction, ie. environmental problems are considered to be "medium-sized" and the biggest environmental problems for local authorities are the problems of using alternative energy sources, landfill conditions and solid waste removal.

CONCLUSION

The socio-economic changes that accompany accelerated scientific and technological development, especially the expansion of modern technologies, presuppose highly educated people who are able to function effectively in social processes and use available technology. The competitiveness of the economy in the global market requires a high level of expertise and competence of the workforce, because modern technological processes are based on a highly educated population. Even countries with considerable natural resources cannot enter the global race today to secure further development without educated and innovative people. When it comes to the development and deployment of new technologies, trends in market economies show that education and the creation of highly skilled human resources are at the top of the priorities of national strategies and policies for economic and technological progress. Therefore, postmodern education must entail the development of highly educated staff who can advance national development and adequately respond to the demands of the contemporary environment.

Higher education plays a significant role in the European integration processes and in fostering the economic and social development of the Western Balkan countries. Monitoring global trends and persisting in higher education reform processes are essential, and reforms should be based on advanced knowledge and skills in various fields. With regard to the Western Balkan countries, it can be concluded that, within the European integration process, all major efforts are being made to implement all parts of the Bologna process and to achieve the goals of the Lisbon Strategy and the Europe 2020 document on higher education. All countries in the region have participated in Tempus, Erasmus Mundus and other EU higher education programs, however, the level of achievement of these countries as well as individual national investments in this area are still below the EU average. It is clear that the overall quality of higher

education in the Western Balkans subregion is not yet satisfactory and that further efforts are needed to meet the set goals.

The strategic documents of the higher education reform, the sphere of transport, the living environment and the concept of sustainable development must be in accordance with the contemporary trends and specificities of each national entity. Programs of improvement are a synthesis of practical and professional action on a platform of acquired scientific knowledge, where members of the academic community play a first-rate role. We particularly insist on the cooperation of scientific elites, higher education institutions and the coordinated engagement of competent entities of individual countries of the sub-regions of the Western Balkans. In implementing relevant projects, it is useful to apply the relevant experiences of prosperous European Union countries that have successfully overcome the challenges of the transition process.

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