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Report

MISMATCH BETWEEN EDUCATION AND LABOUR MARKET NEEDS

- The Enabling Environment for
Sustainable Enterprises in Montenegro-



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Report: Mismatch between Education System and Labour Market Needs – Enabling Environment for Sustainable Enterprises in Montenegro

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Purpose of the Document

The basic purpose of the document, based on Montenegrin Employers Federation's strategic documents – *the Enabling environment for sustainable enterprises in Montenegro* and *5 business killers (2013)* is to provide the analysis of the problem of mismatch between labour market needs and education system in Montenegro. The aim of the document is to consider the current situation from market and institutional point of view, to identify the key constraints and to offer a set of recommendations for overcoming the problem. At the end of the day, better coordination of business and education system results in reduced structural and long-term unemployment and social exclusion as well as in dynamic economic growth and development.

Executive Summary

The mismatch between education system and labour market needs is the best manifested through the disparity between supply of and demand for labour. In 2014, labour supply was 24.6 per cent higher than demand. Such imbalance is positively correlated with long-term unemployment that coupled with poverty and social isolation leads to social exclusion.

Apart from long-term unemployment, Montenegrin labour market is characterised by: underutilisation of human capital – low activity rate, high youth unemployment rate, regional differences in employment, the problem of internal labour migration, intensive employment of workers from the neighbouring countries etc.

The system of formal education is non-responsive to the signals coming from the labour market. Domination of quantity over quality has contributed to increased growth in the number of university graduates, consequently leading to increased number of unemployed university graduates. Insufficient specialisation of study programmes and education programmes at the level of general secondary education ends up in low value knowledge. A syndrome known as *easier to diploma – harder to job*, prevails.

Life-long learning model is a necessity of modern labour market. However, it has not still come to life in Montenegro. The importance of life-long learning is best illustrated by the changes in economic structure over the last 65 years: from dominant share of agriculture in the domestic product, over industrialisation in the socialism era, to deindustrialisation and expansion of services in the transition period. In a relatively short period of time, such changes created the need for reskilling and acquisition of new knowledge, i.e. for life-long learning.

The idea of further education, in the sense of concrete subspecialisation and continuous revision of knowledge is the crucial determinant of competitive advantage of an individual at the labour market. It is, at the same time, the precondition for greater labour productivity and efficient business performance. That is why the availability of quality and specialised training programmes is important – so that they enable reallocation of labour among different economic sectors. It is still not the case - Montenegro ranked 99 at the global competitiveness list in 2015.

In addition to strategies that target education quality and legislative framework that regulates the labour market and all macro policies, employer-worker relation at micro level is an important prerequisite for labour market efficiency. One of the most specific and the most complex transactions in the economy takes place between these two actors. In order for this relationship to be mutually beneficial, in terms of both motivation for work and greater profitability, a coordinated support and engagement of all partners is needed: Ministry of Education, Ministry of Labour and Social Welfare, Employment Agency, Montenegrin Employers Federation, Chamber of Economy, trade unions and universities. The ultimate goal has always been the same – dynamic economic growth and development.

Taking into account the analysis of current state of affairs, causes and effects of education and labour market mismatch, as well as the challenges faced by the policy makers when planning strategic reforms, the following set of recommendations is defined:

- Every 3-5 years, the problem of education and labour market mismatch should be analysed through special empirical research whose methodology and structure are adapted to European;
- Active labour market policy should be affirmed along with continuous growth of state investment into education and science with an aim to reach the EU average;
- Flexible labour market should be created, through further reform of labour legislation;
- Life-long learning should be promoted and further developed;
- Professional training programmes for young and adults should be improved continuously to the extent they contribute to reallocation of labour among different economic sectors;
- Current programmes should be improved and new ones created for those jobs where there is a surplus of demand for labour, now dominantly satisfied with workforce from the neighbouring countries;
- Practical training across all levels of education should be improved, knowledge should be narrowed down, skills should be developed and the importance of self-education through entrepreneurial learning promoted;
- High use-value knowledge should continuously be worked upon through development of quality specialisation programmes especially at the level of higher education;
- External quality control should be improved at all education institutions (affirmation of quality over quantity);
- Education programmes at all levels should be designed to meet labour market needs in medium and long run;
- Enrolment policies at higher education institutions should be periodically adapted to the economic i.e. labour market needs;
- Cooperation and partnership between education institutions, public employment services and Montenegrin Employers Federation should be enhanced;
- Advisory bodies with education institutions – secondary schools/faculties/universities, consisting of employers, academic and state institutions representatives should be strengthened and founded if they do not exist at the time being;
- The role of career and professional guidance should be reinforced i.e. the performance of current career centres in education institutions should be improved and, where needed, new centres should be opened;

- Life-long learning programmes at the level of higher education should be developed with an aim to satisfy the needs of employers for additional/specific training of their employees;
- Mobility of students within universities should be encouraged with an aim to bolster multidisciplinary, subspecialisation and knowledge concretisation;
- Long-term oriented human resources management at the company level should be developed further.

1. INTRODUCTION

A mismatch between education system and labour market needs is a serious threat to economic growth and development. This distortion, manifested as discrepancy between supply and demand for labour, ultimately results in decreasing relevance of labour and inadequate use of the most important manufacturing factor. The economy thus faces the problem of inefficient utilisation of its fundamental resource – human capital. Finally, such situation disrupts a long-term trend of GDP and overall economic growth.

The problem of mismatch has not for long received due attention by academic community in wider, regional, European and even global area. Still, an encouraging fact is that recently, maybe under the pressure of global economic crisis dating from the end of the last decade, this discrepancy has become the subject of the analysis by the state institutions, scientists and businesses. It is therefore important, at the very start, to define the basic manifestations and characteristics of such mismatch.

Table 1: Manifestations of Imbalances between Labour Demand and Supply

Vertical mismatch	A situation in which the level of education or skills is less or more than the required level of education or skills.
Horizontal mismatch	A situation in which the level of education or skills matches job requirements, but the type of education or skills is inappropriate for the current job.
Overqualification	A situation in which an individual has a higher qualification than the current job requires.
Underqualification	A situation in which an individual has a lower qualification than the current job requires.
Overskilling	A situation in which an individual is not able to fully utilise his or her skills and abilities in the current job.
Underskilling	A situation in which an individual lacks the skills and abilities necessary to perform on the current job to acceptable standards.
Credentialism	A situation in which the level of education required to obtain the job exceeds the level of education required to perform the job adequately. It relies upon a belief of the employer that the possession of certificates and diplomas implies higher productivity on the part of the individual.
Economic skills obsolescence	A situation in which skills previously utilised in a job are no longer required or have diminished in importance.

Source: Cedefop (2010, p. 13); Sloane (2014, p. 2)

As illustrated in the *Table 1*, there are numerous manifestations of imbalances between labour demand and supply, from having the situation where a person is less educated than it is required by labour market to a state where there is a mismatch related to the level but not to the type of qualification required for certain job. Interestingly, having a worker with outdated skills that lost their importance is also a major cause of mismatch. It is exactly the circumstance that implies how important the process of (continuous) life-long learning is. Furthermore, it is necessary to point to those instances where the acquisition of diploma, not supported with the adequate knowledge, leads to employers' unjustified assumption that a certificate of completed school/studies is an *a priori* guarantee of greater productivity.

Taking into account the above, it is important to consider certain aspects of education mismatch at the labour market from the time perspective (*Table 2*).

Table 2: Short Run and Long Run Qualitative Mismatches

	Short run	Long run
Causes	Costs of searching by worker or firm prevent best matches	Unbalanced shifts in supply and demand
Methods of observation and measurement	Differences in individual job and worker characteristics	Forecasts of aggregate differences in supply and demand for labor categories
Methods of analysis	Study how workers search for jobs and how firms recruit workers	Examine consequences of trends in technological and organizational change, globalization, ICT, education
Consequences	Costly search for workers and firms, losses in worker wages and lower firm output	Lost returns to worker investments in education and training, inadequate labor force for firm expansion and growth
Policies that address mismatch	Labor institutions that encourage more efficient matches, reduction in search	Adapt educational policies to anticipated changes

Source: Sattinger (2012, p. 4)

In the short run, job search costs for both individual and employer in the situation where there is a vacant position in the company; prevent the best case scenario i.e. matching supply to demand. As time goes by, the costs of "the search" are growing reaching a point when a worker accepts the lower paid job that by all its qualities does not correspond to his/her competences and qualifications. On the other hand, potential productivity losses will make employer hire a worker that is not an optimal solution. Consequently, such decisions lead to discrepancy between the characteristics of labour supply and demand which ultimately results in unmotivated worker and less efficient enterprise. In the long run, unless worker is successful in finding the job that correspond to his/her qualifications and education, his/her investment in the process of education will become "a failure". For employer, inadequate work force will hinder the enterprise expansion and growth and jeopardize its life cycle. For the sake of a relevant analysis of the problem, it is necessary to carry out an unbiased prognosis and assessment of labour market trends, where state institutions play a crucial role not only in the short-term labour market harmonisation and costs reduction for both workers and employers but in the long-term repositioning of education system so that it matches the anticipated changes.

The outcomes of measuring mismatch in the labour market show major differences between countries. A survey carried out in 25 European countries illustrated this disparity. On average, 33 per cent of workers are overeducated; ranging from 14 per cent in the Netherlands to 79 per cent in Estonia. The only ex-Yugoslav country analysed within this survey is Slovenia where the share of overqualified is 17.7 per cent. The findings showed much greater proportion of undereducated workers – 59 per cent on average. Undoubtedly, the lowest is the share of workers whose skills match the labour market demand (even below 10 per cent in 20 countries surveyed) (Galasi, 2008).

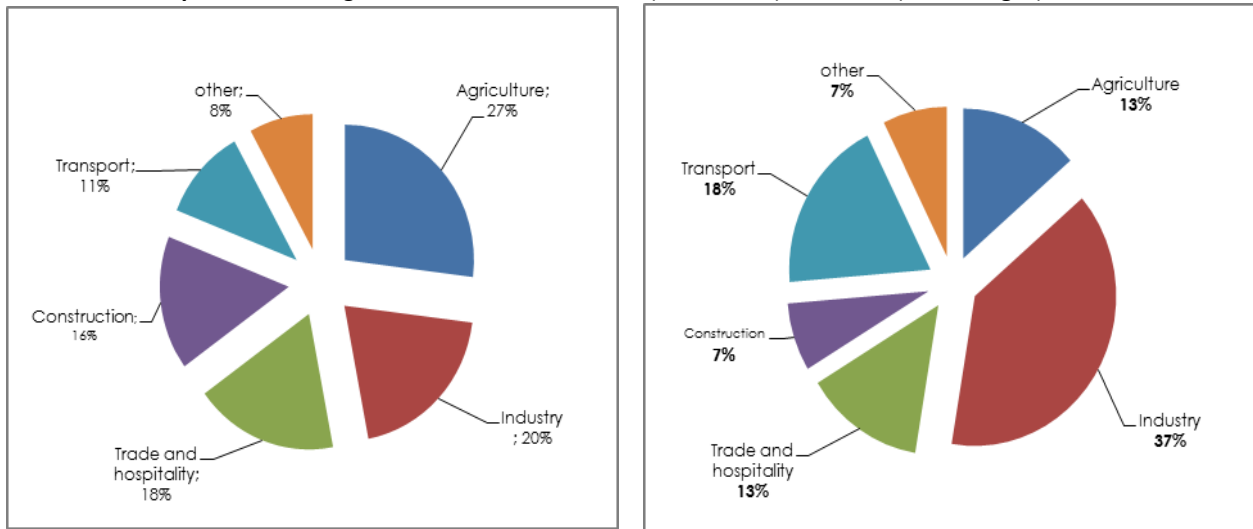
Recent studies has shown that between 15 and almost 35 per cent of workers in European countries is either under or overeducated whereby the lack of education is more frequent than the surplus of education. If we look at the sectors, “agriculture, forestry and fishery” along with “household manufacturing” are those with greatest level of labour market mismatch. In terms of occupations, the greatest horizontal and vertical inconsistency is recorded in the sector of “agriculture, forestry and fishery” (Morgado *et al.*, 2015). More detailed results based on poll survey provide deeper insight into manifestations of causes and effects of labour market imbalances (Schomburg & Teichler, 2006; Cedefop, 2010).

2. BRIEF HISTORICAL OVERVIEW OF THE PROBLEM

In order to provide a comprehensive analysis of the subject area, it is necessary to accept and consider the dynamics of the processes that characterise the economic growth, population structure, and labour market situation and education system development in Montenegro.

Structural economic changes

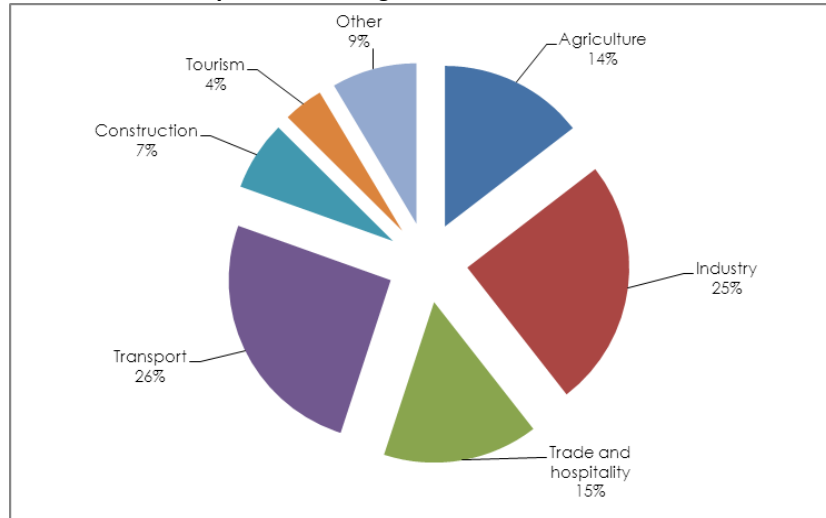
Over the last 65 years Montenegrin economy has undergone major structural changes. Initially they were caused by the development of socialist self-governing system. A very dynamic economic activities from 1952 to 1989 caused changes in the ratio of agriculture and industry. The share of industry in Montenegro’s GDP increased from merely 7.4 per cent in 1952, to 37.9 per cent in 1989, while completely the opposite happened with agriculture – from 38.8 per cent share in 1952 it shrank to 12.6 per cent of GDP in 1989. From 1961 to 1989 alone, industrial manufacturing increased 6.4 times compared to only 1.5 times increase in agriculture. Such major disproportions caused other contradictions such as high unemployment growth, intensive migrations of population from rural into urban areas i.e. from the northern to the central and southern region (from 46.2 per cent in 1961 to 31.4 per cent in 2003). Other economic sectors, aside from transport, recorded decreasing share in gross domestic product by the end of the period observed (*Graph 1*).

Graph 1: Montenegro's GDP Structure in 1961 (on the Left) and 1989 (on the Right)

In parallel to a very rapid industrialisation, a tertiary sector developed representing a dominant segment of GDP today. Such dynamic growth of tertiary sector (around 9 times increase) was a consequence of construction and utilisation of major infrastructure objects in the sector of transport (Adriatic highway, the Port of Bar etc.) as well as a growing development of trade, tourism and hospitality. Apart from the above mentioned, tertiary sector generated new employment (with approximately 14 000 new jobs in 1961 and around 48 000 jobs in 1989) thus equalling the number of employed in the industry sector (around 54 000 jobs).

The extremely dynamic economic development in the socialist era ended up infamously – with a complete crash of economic system in early 90ies. The process of transformation from socialist to capitalist economy, paved with many uncertainties, led to very dramatic economic downturns. The period from 1989 to 2000 was marked with economic depression – characterised by an extreme reduction of economic activities across all sectors of industry. By the end of this period, in 2000, the share of industry in the GDP from 1989 was only 37.8 per cent, while the shares of agriculture, construction, transport, trade and tourism were 73.4, 57.3, 77.8, 69 and 57.8 per cent respectively. It was evident that the sectors of industry, maritime transport and tourism suffered the most. Not only did the share of industry in GDP reduce to 25.3 per cent but it was only owing to energetic-metallurgy complex which somehow managed to survive that the share of industry maintained that level. The level of capacity utilisation in other industry branches was reduced to lower than 25 per cent, whereas some of the branches practically disappeared.

Such intensified reduction of industry share in GDP inevitably caused substantial structural economic changes. It led to a state where the share of industry dropped almost to the level of transport (25 and 26 per cent respectively), the share of agriculture was nearly equal to the share of trade (14.5 and 15.5 per cent respectively) while the share of construction remained the same as in 1989 (7 per cent).

Graph 2: Montenegro's GDP Structure in 2000

Intensive recovery of Montenegrin economy has started after 2000. From 2001 to 2008 the GDP increased by 37 per cent. At the same time, the number of employed increased by 25.1 thousand i.e. by 17 per cent, while the number of unemployed reduced by even 53.1 thousand i.e. by 65 per cent (Djurovic, Radovic & Djuraskovic, 2011). The unemployment rate was continuously dropping to reach 16.8 per cent in 2008. Dynamic economic growth lasted until the last quarter of 2008 when it became obvious that the negative effects of global economic crisis, coupled with domestic economy internal challenges, would question the progress accomplished at the beginning of the first decade of 21st century.

Since the characteristics of new GDP calculation methodology do not allow the comparison of data within a wider time frame, we will briefly analyse the changes in economic structure from 2000 to 2013. The dominant contribution to the GDP is provided by the tourism sector, unlike the sectors of agriculture and industry. *Thus, in the period from 2000 to 2013 the share of agriculture in GDP reduced to 8 per cent, while the share of industry dropped to 11 per cent.* Contributions of other sectors to GDP in 2013 were: 27 per cent (tourism)¹, 5 per cent (construction) and 12.5 per cent (industry)² (Ministry of Economy, 2015, p. 4).

Population structure – human resources analysis

Owing to a natural increase and mechanical movements (migrations), and according to 2011 census data, Montenegro has a population around 620 000.³ In absolute values, the number of residents in Montenegro increased compared to 2003 census data by only 7,762. From the regional perspective, the northern region is characterised by a negative population growth rate (-7.2 per cent), while the population in central and southern region has increased by 5.8 and 3.7 per cent respectively. Without going into detailed analysis, *one can ascertain that population dynamics and number are primarily the result of reduced birth and mortality rates that classify*

¹ According to current methodology, this sector involves: wholesale and retail trade, repair of motor vehicles and motorcycles, transportation and storage, food and accommodation services.

² According to current methodology, this sector involves: mining and quarrying, manufacturing, electricity, gas, steam and air conditioning supply, water supply, sewerage.

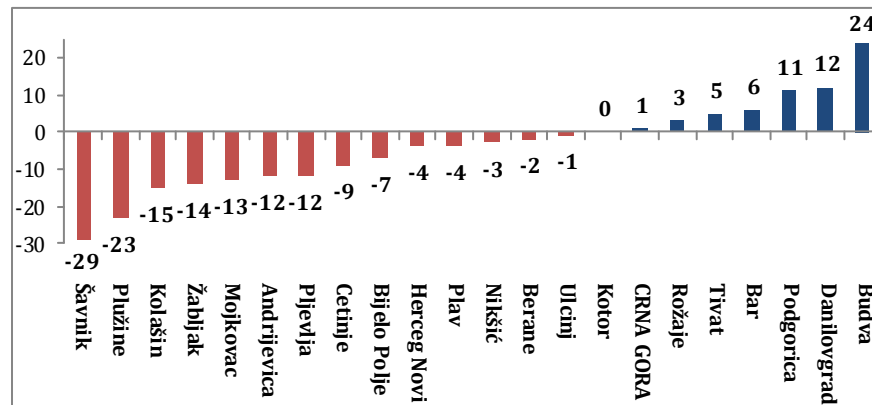
³ It refers to permanent residents, according to 2011 Census, not including persons temporarily working abroad.

Montenegro as low birth areas. Decline in the birth rate is to a large extent caused by economic factors (unemployment), getting married at later stage, prevalence of one or two children families i.e. reduction in the number of household members.

Migration processes also had a strong influence on population. In that sense, we are especially highlighting the evident fact of migration of skilled and high-skilled population from Montenegro. These processes were encouraged by economic and political events, starting from 1990s. *Brain drain is not only a reduction, that is, human resources impoverishment but also a permanent loss of significant resources invested into education of “ready-made” product.*

Particularly extreme problem of internal migration – from the north to the central and southern regions of Montenegro – has resulted in uneven regional development. Such a conclusion can be drawn from the Graph 3 which illustrates population decline dominantly in the northern region, while the central and the southern region are characterised by population growth.

Graph 3: Changes in the Population Numbers per Municipalities for 2011 Compared to 2011 in per cents (%)



Source: Statistical Office of Montenegro, Population Census 2011

The data reveal a significant problem of Montenegro's economy – a mismatch between *human and economic resources*. Namely, the trend of population decline in the areas abundant in natural and economic resources triggers the process of degradation, devastation and depopulation of arable areas. In short, this is the manifestation of earlier mentioned economic structure change, or more precisely – marginalization of agriculture as economic activity. When it comes to share of agriculture population in the total population, it was 71% in 1952, opposed to merely 7.5% in 1991.

Since population age structure is an indicator of human factor quality, one has to point out the tendency of population aging, with visible regional differences. *It means that the share of young population has reduced, while the number of middle age population and especially, the population older than 60 and 65 has increased.* If we link this fact to migration trend, the average age of population is the highest in northern Montenegro, except for the municipality of Rozaje. Furthermore, there are obvious differences between population from urban and other area. Urban population is somewhat younger, which is to a large extent the result of migrations, while in all other dominantly rural areas, the population is older.

Earlier, as part of Yugoslavia, Montenegro was at the top of the ladder when it came to its population level of education, which can imply the quality of human resources. However, the economic practice revealed a contradictory fact given that parameters of efficiency, profitability

and productivity in Montenegro were below Yugoslav average. Seeking the answer to this question, we find that one of the reasons, primarily, lies in the fact that *the level of education was given priority over experience so very often the level of education was more of a formal confirmation of completed studies than the reflection of real knowledge and competences* (Bozovic & Djuraskovic, 2013). Higher level of formal education i.e. qualification does not necessarily guarantee greater productivity.

Economic structure or human resources activity rates are also a factor of quality and development. The activity rate in the third quarter of 2015 was 55 per cent. This *figure tells about inadequate utilisation of human resources* since almost 50 per cent of population is not active at the labour market. If to that we add even lower activity rate of women, then we get a realistic picture of this labour market indicator in Montenegro.

The structure of employment and unemployment (Labour market analysis)

Labour market analysis points to certain structural weaknesses and threats to dynamic economic growth. What is primarily meant by these is the problem of high long-term unemployment, high share of youth in the structure of registered unemployed, continuous growth of unemployed university graduates and striking disproportion between labour market supply and demand in terms of both quantity and quality. The causes of such disproportion are the following:

- Mismatch between the education structure of employed workers and employers' needs,
- Mismatch between supply and demand in terms of occupations structure and number of employees needed and
- Mismatch in regards to quality of professional capabilities of persons completing regular education and current technological requirements and conditions of work in manufacturing and services.

Apart from the above said, another concerning fact is the data that only a half (53.5 per cent) of total employed in Montenegro does a job that correspond to their fields of studies (UNDP, 2013, p. 13). Similarly, the productivity of labour force measured by GDP per number of employed in 2009 was 22 per cent of the average productivity in EU 27 (UNDP, 2013, p. 6). The preference of human resources as labour market supply creators can be told by the fact from the same survey according to which almost 2/3 of working-age population (64 per cent) would rather accept a job in public sector for a monthly wage of 450 EUR than in private sector for 750 EUR pay. It says enough about entrepreneurial ambition of human resources at Montenegro's labour market and is also an indicator of (inadequate) level of self-employment and aversion toward the risk of starting a business.

Some of the basic indicators, characteristics and determinants of Montenegro's labour market are considered below (based on MONSTAT 2015 data):

- Total number of employed – 221.7 thousand;
- Total number of unemployed – 47.25 thousand;
- Inactive population – 231.6 thousand;
- Low activity rate – 53.7 per cent;

- Low employment rate – 44.3 per cent;
- High unemployment rate – 17.6 per cent;
- High long term unemployment rate – 57 per cent of unemployed have been seeking the job over one year;
- High youth unemployment rate (aged 15-24) – 37.6 per cent;
- Regional unemployment disparities – with unemployment rates in coastal, central and northern region of Montenegro being 7.8, 12.4 (11.4 per cent in Podgorica) and 37.3 per cent, respectively.
- A way too intensive employment of foreign workers – 23 255 employed in 2014 (EAM, 2015, p. 15).

If we analyse labour market parameters from the level of education perspective (*Table 3*), it is evident that persons with secondary education attainment have a dominant share in active population with 41.5 per cent, followed by university graduates i.e. persons with tertiary education attainment (23.7 per cent). It is evident that activity and employment rates are directly proportionate to the level of education – the higher the education levels the greater the labour market activity and, subsequently, the greater the chance of finding a job. Concerning the unemployment rate, it is getting lower with higher levels of education attainment, so the unemployment rate of persons with post-secondary and higher education is below the total unemployment average, but still two-digits – reaching the worrisome 11.4 per cent. Data reveal another characteristic of education system whereby the activity and employment rates of general secondary education graduates are below average along with the unemployment rate for this category beyond average. It implies this category of workers as harder to employ, i.e. inadequate education output that does not affirm narrow specialised knowledge making labour supply less attractive.

Table 3: Labour Market Parameters by School Attainment⁴

	Active population by school attainment (%)	Activity rate by school attainment	Employment rate by school attainment	Unemployment rate by school attainment
Less than primary education	1,5	12,4	9,8	20,9
Primary education	7,7	23,8	16,7	29,7
Vocational education after primary school	15,2	56,2	45,2	19,6
General secondary education	5,8	46,8	38,1	18,6
Vocational secondary education	41,5	67,2	56,1	16,5
Post-secondary vocational education	4,6	65,3	60,5	7,4
Bachelors, masters or doctors' degree	23,7	81,5	72,2	11,4
TOTAL	100	55	45,9	16,5

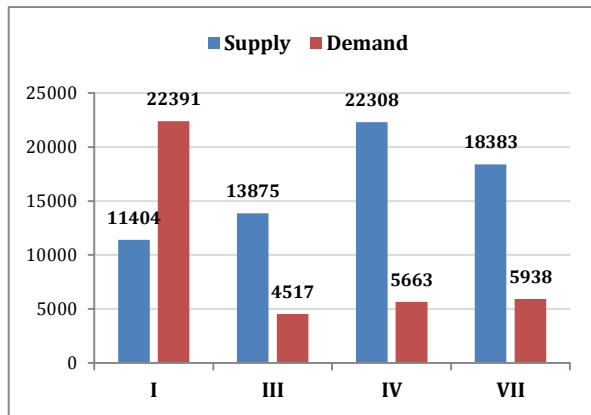
Source: MONSTAT (2015, p. 8)

⁴ The first column provide data on the level of education of active population, while the other three categories represent aggregate indicators for persons aged 15+

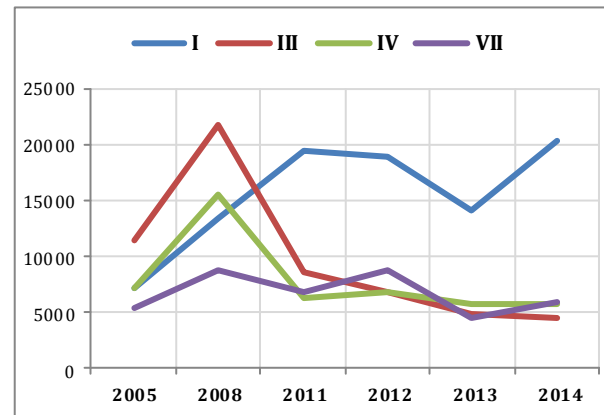
If we observe employment in relation to occupations, it is evident that the share of agriculture in the total employment is the least (only 8.3 per cent), followed by non-agriculture – industrial sector with 17.9 per cent of employed, the most of them employed in processing sector (7.1 per cent) and construction (6.8 per cent). The greatest number of workers is employed in the services sector (73.9 per cent share in the total employment), dominated by wholesale and retail sector and public administration employing 21.3 and 9.2 per cent of total number of workers respectively. These data correspond to the GDP structure change in favour of services and at the expense of industry and agriculture.

Labour market supply and demand mismatch is illustrated by Employment Agency data for 2014 showing registered vacancies and job seekers. As illustrated by Graph 4, the demand for labour in 2014 surpasses labour supply only in the category of persons with completed elementary education, i.e. 1st level of education, whereby the labour force deficit in absolute numbers was 11,527 persons. At higher education levels, labour supply surpasses the demand resulting in surplus of registered job seekers with the following education attainment levels – III (+9358), IV (+16645) and VII (+12445).

Graph 4: Supply and Demand by EAL (in thousands)



Graph 5: Job vacancies by EAL



Source: EAM (2015, p. 12, 86)

If we observe the trend of change in the number of vacancies registered with EAM according to the level of education attainment (EAL), it is evident that labour market preferences go to the 1st level of education. From 2005 to 2008 there was the evident growth of vacancies in all categories but the subsequent effects of economic crisis resulted in negative trends. Still, in 2013 only the demand for labour at the 1st level of education showed the tendency of increased growth. This also corresponds to the GDP composition, i.e. the output of Montenegro's economy differing significantly compared to pre-transition period, which implies the changes in the character and scope of labour demand by enterprises.

Imbalances between labour market supply and demand are best illustrated by the fact that in 2014 the demand for labour was 24.6 per cent higher than labour supply. The greatest number of vacancies was in the sectors of wholesale and retail, administration and services, tourism and hospitality whereby secondary vocational education profiles were the most demanded (Ministry of Labour and Social Welfare, 2015, p. 19).

One of the consequences of structural unemployment and education and labour market mismatch is manifested in seasonal workforce formed by a sort of foreign unemployment

import. As evidenced in the EAM analysis of supply and demand at the labour market in 2014, “a great volume of employment of foreign workers in Montenegro is a specificity and an exception compared to the volume of foreign workers employment in other countries (...) there is a number of reasons for such trend; primarily, a significant deficit of certain occupations demanded by construction and hospitality industry in the period of high-season in these sectors as well as the fact that countries from the region are characterised by high unemployment (about 1 million unemployed in Serbia, Bosnia and Herzegovina, FYR Macedonia, Kosovo and Albania in total) that provides the opportunity for satisfying the needs of employers in volume, structure and dynamics, usually with cheaper workforce.” (EAM, 2015, p. 15)

Employment of foreign workforce surpasses the employment of domestic workforce: by 5 times in construction sector, by 50.3 per cent in tourism and hospitality and by 34.2 per cent in wholesale and retail sector. This points to the fact that the surplus of demand, especially in the category of 1st level of education, the employer compensates from external resources, which would not be so alarming if the unemployment rate in Montenegro was not (two-digits) high. It is, however, necessary to highlight that a more detailed analysis of situation is needed, since there are assumptions that such mismatch between domestic supply of and demand for labour is not only the consequence of structural characteristics of labour but possibly of a certain level of frictional and even voluntary unemployment.

Education system (the analysis of situation)

In the process of transition, Montenegrin education system underwent numerous reforms in all segments. Today, there are 424 elementary schools, 50 higher education schools (12 of which are grammar schools-general secondary education schools) while at the level of higher education there are state University of Montenegro⁵, two private universities (University Mediterranean⁶ and University Donja Gorica⁷) and seven higher education institutions.

Total number of students in elementary schools at the end of school 2013/14 was 68 171 while there were 30 180 students in secondary schools. In 2014/15 there were around 24 000 students at higher education institutions. The same year, the rate of enrolment to elementary schools, secondary schools and higher education institutions were 98.55, 86.49 and 35.41 per cent respectively. (MONSTAT, 2015a, p. 157-160)

One of the most important segments of education in Montenegro is gymnasium education. It builds on the reformed nine-year elementary education and together with vocational secondary education makes a basis for further education at universities. General secondary education reform started in 2002 when a legislative framework was adopted and in 2006/07 education was carried out in line with new curricula. The reform made it possible that, having recognised their personal affinities, students create a part of syllabus on their choice. Thus, 90 per cent of 1st grade syllabus is made of compulsory subjects while the remaining part is reserved for compulsory elective subjects and compulsory elective contents. However, up until

⁵ University of Montenegro has 19 active faculties and two institutes. It numbers around 20,000 students.

⁶ University Mediterranean has 6 active faculties.

⁷ University of Donja Gorica has 9 active faculties and a Foreign Languages Centre.

4th grade, more than ¼ of the syllabus is made of compulsory elective subjects (Ministry of Education, 2015, p.7).

The development of gymnasium education as undoubtedly the most quality segment of secondary education would have to entail a certain level of students' specialisation. Labour market data show that employers' affinities are rather directed towards engaging skilled/specialised personnel. Having this in mind, it would be necessary to create conditions for strengthening specialised courses within gymnasiums (mathematics, social-language, sports...) which would ultimately ensure more useful preparation for higher education. It is expected that application of specialised syllabuses in gymnasiums starts in 2016/2017. On the other hand, in line with the Law on Vocational Education and Training, VET is organised as lower, upper and post-secondary in two, three and four year VET schools, post-secondary and art schools. VET also comprises master of craft exam.

Based on the Montenegrin Education Information System (MEIS) data there was 1,932 students attending three year vocational programmes in 2014, of which 679 are 1st grade students or 9.09 per cent of the total number (7,463) of 1st grade students at national level, 691 are 2nd grade students or 8.82 per cent of the total number (7,832) of 2nd grade students at national level and 562 3rd grade students or 7.11 per cent of the total number (7,896) of 3rd grade students at national level. There are no students enrolled to two-year VET programmes. The data clearly point to the necessity of designing measures for alleviating the problem – by encouraging elementary schools graduates to enrol to VET schools and breaking the stereotypes their parents are inclined to, by assuring them that their children would have greater chances at the labour market if they are educated for III level occupations.⁸

Employers i.e. labour market needs require that from the level of elementary, through secondary and up to higher education, the system of high use value is created through strengthening creativity and students' logical thinking. It is possible to accomplish by affirming practical training where student is direct participant/partner in education process and by practicing entrepreneurial learning. The ultimate goal is the creation of personality characterised by self-consciousness, independence, entrepreneurial mind-set and proactivity.

The reform of higher education system in Montenegro started in 2003 with adoption of Bologna declaration. The adopted system is based on three cycles of studies: undergraduate, postgraduate and doctoral; the European Credit Transfer System (ECTS) is introduced along with new students and teachers mobility programmes etc. The adoption of new Law on Higher Education in 2003 set the ground for reform implementation. In the years that followed, new (private) universities were opened. The new phase of higher education development is characterised by:

- differences in the quality of education both at the level of higher education institutions and the very study programmes;
- still underdeveloped and insufficiently promoted lifelong learning concept;
- higher education system that is not competitive nor attractive on the international scene;

⁸ Ministry of Labour and Social Welfare, *Employment and Social Reform Programme 2015-2020*, p. 49

- unsatisfactory level of international cooperation and academic mobility (no lectures organised in English, insufficient infrastructural capacities);
- scientific research underrepresented in higher education process and
- rapid growth in the number of higher education institutions and in the number of students, inappropriate to labour market needs. (Ministry of Education and Sports, 2011, p. 3).

The overview of education system in terms of increasing number of students is the best illustrated by *Table 4*. In the study year 2003/04, when “experimental” application of Bologna declaration started, the number of students at undergraduate studies was 9,759. In 2014/15, there are 24,184 undergraduate students in Montenegro. The expansion is obvious with respect to specialisation and post-graduate studies as well.

Table 4: The Number of Students per Study Levels in Montenegro

Academic year	Undergraduate studies	Specialisation studies	Post-graduate studies
2000/01	8 271	n/a	n/a
2001/02	7 878	n/a	n/a
2002/03	8 333	n/a	n/a
2003/04	9 759	n/a	n/a
2004/05	11 011	n/a	n/a
2005/06	12 903	n/a	n/a
2006/07	16 173	n/a	n/a
2007/08	18 009	420	966
2008/09	20 490	1 225	1 023
2009/10	21 199	1 656	931
2010/11	22 163	1 880	1 061
2011/12	22 227	2 215	780
2012/13	22 279	2 169	463
2013/14	23 442	2 014	552
2014/15	24 184	1 903	443

Source: MONSTAT, 2015 (www.monstat.org)

Nevertheless, despite the obvious domination of quantity over quality of education, the share of population with university degree in Montenegro is low compared to developed countries. According to 2011 census, 17.4 per cent of total population aged 15+ had a university degree. The aim is to have at least 40 per cent share of population with university degree aged 30-34 by 2020, as well as to decrease the share of university drop-outs (which in 2011 amounted to 60 per cent) to 10 per cent by 2020 (Ministry of Education and Sports, 2011, p. 10).

In parallel to formal education development, it is necessary to further develop vocational education in the interest of life-long learning. Deficits and surpluses in labour force supply and demand, especially with some occupations, call for realisation of a set of programmes aimed at harmonising such relations. In that sense, we should especially highlight the importance of training programmes for: skills upgrading, retraining and specialisations – in the areas of metal

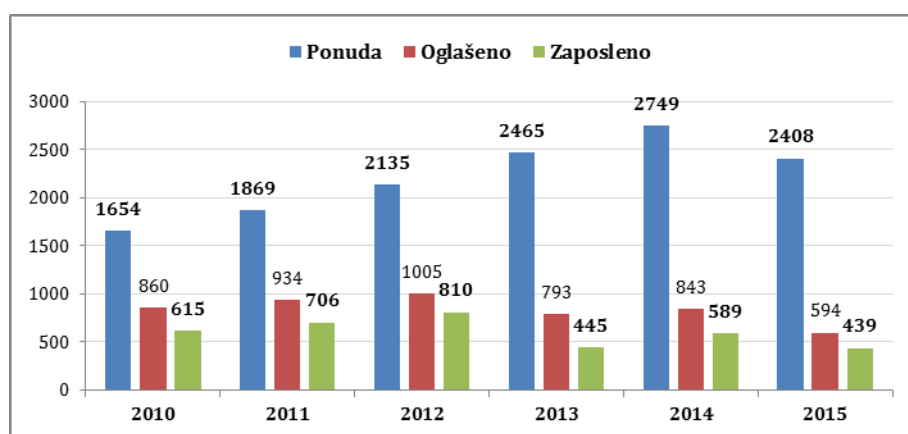
processing, crafts, agriculture, information technologies, foreign languages, hospitality and others (Ministry of Education, 2014, p. 7).

Case study – higher education area (profiles: B.Sc. in Economics and B.Sc. in Law)

For quite some time, in the system of higher education, there is a particular demand for social sciences. The attractiveness of study programmes Economics and Law arises from the fact that these profiles are needed by a wide range of industries. The reform of education, the emergence of new supply providers such as private universities, i.e. market competition, contributed to continuous increase in the number of students enrolled to these two profiles. This quantitative aspect of education system development is inconsistent with the economic crisis and economic downturn, which ultimately, deepened the gap between labour market supply and demand.

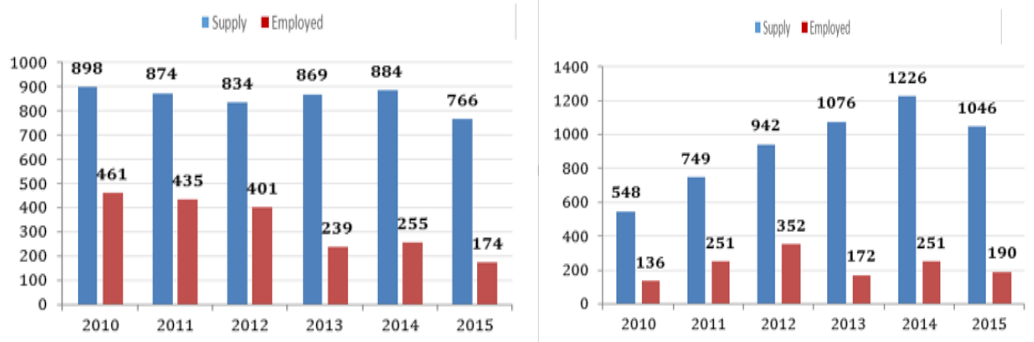
If we observe the occupational group ECONOMIST, labour supply increased over the period 2010-2014 followed by an increase in the number of newly registered with EAM. The trend changed in 2015 when there was a lower supply registered – 2,408 candidates, in absolute terms.

Graph 6: Labour Demand, Number of Vacancies and Number of Employed Workers (occupational group: **ECONOMIST**)



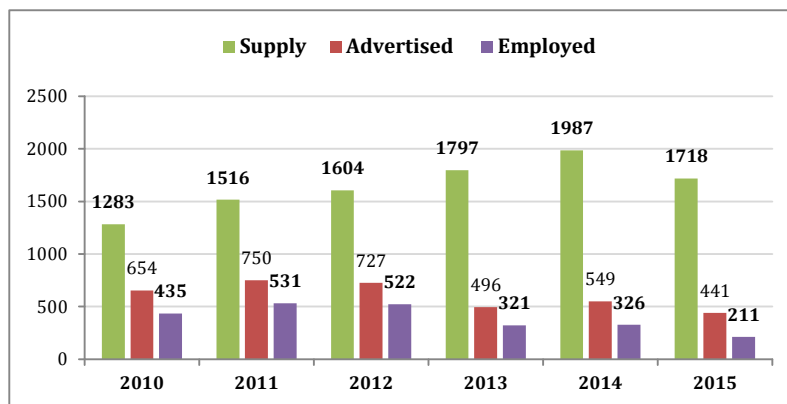
Source: Employment Agency of Montenegro

If we compare two sub-categories - the Bachelor of Economics (B.Sc. (Econ)) /the Bachelor of General Economics, Banking and Financing (240 ECTS – 4 year studies) and Bachelor of Economics (180 ECTS – three year studies) the surplus of workforce is visible in both categories. In case of the 1st sub-category, the demand is relatively stable (almost equal in 2014 and 2010), while the demand for 3-years Bachelor degree for the same period increased by 2.2 times. Thus, the surplus of demand is much greater for the second sub-category.

Graph 7: Demand and Number of Employed B.Sc. (Econ) (left) i 3 years Bachelor of Economics

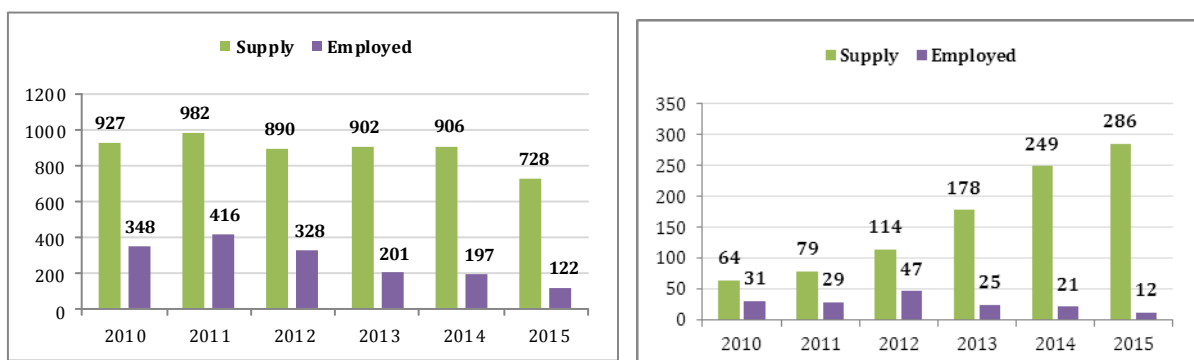
Source: Employment Agency of Montenegro

The occupational group LAWYER shows similar trend. Although in absolute terms the demand was noticeably lower in comparison to the profile of ECONOMIST, the gap between the demand and the number of vacancies/employed have been increasing since 2013. There is a time inconsistency between labour market supply and demand. The reaction of supply to lower demand and slower employment was visible only in 2015.

Graph 8: Labour Demand, Number of Vacancies and Number of Employed Workers (occupational group: LAWYER)

Source: Employment Agency of Montenegro

Speaking about sub-categories B.Sc. (Law) (240 ECTS – four-year studies) and Bachelor of Law (180 ECTS – three-year studies), the surplus of workforce is obvious in both cases. Still, Graph 9 illustrates that significant preference by employers is given to four-year university graduates.

Graph 9: Supply and Number of Employed B.Sc. (Law) (left) and Bachelor of Law (right)

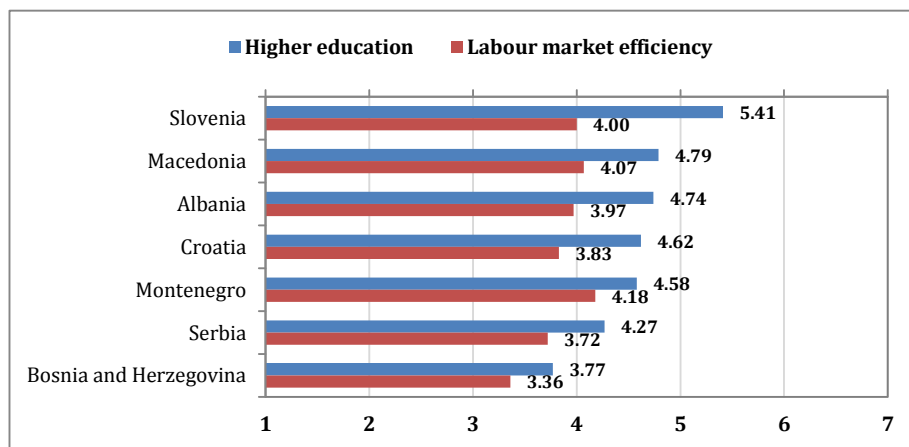
Source: Statistical Office of Montenegro

Bachelor of Law (3-years degree) profile has not been recognised as labour market need, which is confirmed by the fact that there were only 12 candidates employed through Employment Agency in 2015 out of 286 registered candidates.

3. INTERNATIONAL COMPARISON

The position of Montenegro in global ranking list, in regards to quality of education and labour market efficiency, can be obtained from the analysis of the Global Competitive Index which is published annually by the World Economic Forum. Graph 10 illustrates the comparative relationship between countries from the region in regards to the two areas mentioned. When it comes to the category of higher education and employees training, Montenegro ranked 54 out of 140 countries in 2015 with a score 4.58. Of all countries used for comparison, Slovenia ranked the best taking 22nd place, while Serbia and Bosnia and Herzegovina were the only countries with worse scores than Montenegro.

Graph 10: Global Competitive Index in Chosen Countries, in the Areas of Higher Education and Labour Market (2015)⁹



Source: World Economic Forum, 2015

In regards to labour market efficiency, the study has shown that Montenegro stands out compared to the region with a score of 4.18 and ranks 74th at the general list. Macedonia and Slovenia are also better than the rest of the region of which the worst result is Bosnia and Herzegovina's.

If both indicators are analysed in more detail, it is interesting to consider the weaknesses of Montenegrin economy from the perspective of some sub-categories. When it comes to labour market efficiency, Montenegro's best result is achieved in regards with redundancy costs (it ranked 42). Related to the employment and dismissal practice in terms of having regulations that enable flexible employment/termination of employment, Montenegro's score is relatively low (3.8) which places the country into the worse half of the ranked countries. National

⁹ Whereby 7 is marked as the best and 1 as the worst score

competitiveness is not particularly supported by productivity (Montenegro ranked 92), as already stated, but the scores related to the country's capacity to attract talents are concerning (103 in the global ranking). It can, in a certain way, be considered an indicator of "brain drain" jeopardising the country's basic development substance. Another interesting result is reflected through the indicator on reliance on professional management – whereby Montenegro's scored 3.5 (from 1 – higher managerial positions are often filled by family members and friends to 7 – higher managerial positions are filled by mostly professional managers chosen in accordance to their qualifications). The last indicator of the labour market efficiency is *the Cooperation in labour-employer relations*, with Montenegro having the worst individual result and ranking 113 at the general scale. It points to the need of developing cooperative relations between social partners based on trust and mutual understanding.

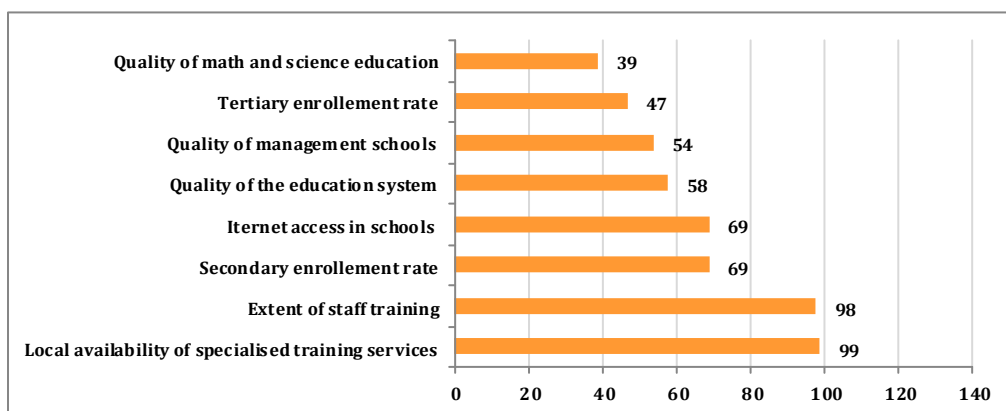
Graph 11: Montenegro's Ranking at the Scale of Global Competitiveness, 7th Pillar– Labour Market Efficiency (2015)



Source: World Economic Forum, 2015

The 5th pillar of the Global Competitive Index – Higher Education and Training, measures the quality of education, the extent of staff training, enrolment rates etc. What is particularly interesting and reflected through this indicator is that the quality of education has changed significantly compared to 2010 e.g. when Montenegro ranked as high as 39th. Five years later, it dropped to 58th place.

Graph 12: Montenegro's Ranking at the Scale of Global Competitiveness, 5th Pillar– Higher Education and Training (2015)



Source: World Economic Forum, 2015

The last two areas where according to indicators Montenegro performed the worst are extent of staff training (98th position) and availability of specialised research and training services (99th). The first indicator reflects the objective constraints companies face (worse business performance, economic crisis, illiquidity etc.) and wrong and biased estimates made by the management (whereby training is considered a cost not an investment; the human capital development is not regarded as the company's priority; it is the customer that matters not employees etc.).

4. IMPACT OF CURRENT POLICIES AND MEASURES

Montenegrin education system rests upon the legislative and regulatory framework that consists of the wide range of strategies for each level of education. In regards to legislation, we should primarily highlight the following: General Law on Education and Upbringing, The Law on Elementary Education and Upbringing, The Law on Gymnasium, The Law on Higher Education, The Law on Vocational Education and Training, The Law on Professional Education of University Graduates, The Law on Adult Education and the Law on National Professional Qualifications. In line with legislative solutions, national economic development directions and the Strategy of Employment and Human Resources Development in Montenegro, there are number of strategies and policies aimed at education system development. The most important of them are:

- ✓ The Strategy of Development of Elementary Education and Upbringing (2011-2017);
- ✓ General Secondary Education Strategy (2015-2020);
- ✓ The Strategy of Development and Financing of Higher Education (2011-2020);
- ✓ The Strategy of Development of Vocational Education in Montenegro (2015-2020);
- ✓ The Strategy of Adult Education in Montenegro (2015-2025);
- ✓ The Strategy of Inclusive Education (2014-2018);
- ✓ The Strategy of Life-long Entrepreneurial Learning (2015-2019).

Positive aspects of education policies at the level of primary and secondary education are: the concept of elective subjects, adoption and incorporation of IT into learning process, modern literature etc. However, there are still schools in minor local communities that need adequate equipping, there is a need for teacher training, curricula should be updated and the model of external evaluation developed, syllabus should be narrowed and adapted to ensure specialisation of students.

As illustrated in the previous chapter, higher education in Montenegro is characterised by diverse quality of institutions, rapid increase in the number of institutions and students despite the structure of labour market demand, inadequate representation of scientific and research work etc. The current policy has not achieved greater performance of higher education institutions, has not built the concept of entrepreneurial learning, nor has it established links to the labour market. The quality of higher education needs to be further improved since they will soon be competing with European higher education institutions.

Labour market regulation in the broadest sense is represented by the Labour Law and General Collective Agreement. Both require change. The current framework does not contribute to the

greater labour market flexibility. The rigidity is also present as a consequence of certain norms defined by the collective agreement. Legislative framework and labour market policy should definitely be harmonised with the ILO standards, all within the context of necessary adjustment to European values in the accession process. When it comes to labour market, the transition from socialist to capitalist economic system could not solve some relics of the past, especially the inflexibility of workers in terms of their readiness to change the job, the outstanding inclinations to security and employment in the public sector, aversion towards the risk of starting a business etc. Instead of job security, a worker's motif should be the security of employment. And the security of employment can be guaranteed only if workers make continuous efforts toward upgrading their knowledge and personal development along with cherishing work ethics and not by merely advocating for setting the legislative principles that will grant the monopoly over the workplace.

New legislative solutions should bring flexibility or, as it is defined in the new terminology – flexicurity at the labour market. The interests of both employers and workers should be considered objectively since the intention to act in the interest of only one actor will not result in positive effects in the long run at both micro and macro level. The employer-worker relation is a symbiosis (competitive and collaborative at the same time) which is especially important having in mind that it is one of the most complex transactions in modern economy.

5. FOCUS GROUP DISCUSSION OUTCOMES

In order to get comprehensive information, there was a focus group discussion organised where employers had an opportunity to express their opinions, identify problems in this areas and provide recommendations for overcoming them.

One of the major weaknesses of education system recognised by employers was inadequate representation of practical training in university programmes or, as stated by one of the focus group participants: “A student that graduated from the Faculty of Economics had never filled in a common transfer order during his/her studies. The same goes for someone who has a degree in Law – he/she has never written a complaint”.

Another issue is a poor cooperation between education system institutions and employers. When communication is bad, the education system does not receive the right information on what exactly the labour market considers an attractive profile. A significant barrier for manufacturing sector is the imprecise classification of occupations making it difficult to interpret the scope of certain occupation. Representatives of manufacturing sector outlined another issue – the selection and licensing of training providers, since, according to their experiences, the current training providers do not perform well in terms of quality of human resources they train for the labour market.

Finally, focus group participants agreed on the necessity to make a thorough research that would combine all available findings and relevant data, consider crucial labour market problems and based on the outcomes create an operational plan for implementation of measures.

6. RECOMMENDATIONS

Taking into account the causes and effects of education and labour market mismatch, manifested through inefficient use of the most important economic resource, the decline of productivity, reduced profitability of business and lower rate of economic growth, it is of invaluable importance to coordinate all relevant institutions and subjects with an aim to alleviate the effects of this disorder on economy. The key actors in this regard are: Ministry of Education, Ministry of Labour and Social Welfare, Employment Agency, Montenegrin Employers Federation, Chamber of Economy, trade unions, universities etc.

The recommendations for tackling the mismatch between education system and labour market needs are:

- Concrete empirical surveys and continuous analysis of mismatch between labour supply and demand should be developed and conducted (every 3-5 years, the problem of mismatch should be analysed through current surveys (MONSTAT, EAM) or by ensuring special tools for relevant data collection; the methodology and structure of the survey should be adapted to European for data comparison at later stages; the survey should be carried out based on questionnaires for employers and workers (with involvement of Montenegrin Employers Federation and trade unions);
- Active labour market policy should be affirmed along with continuously growing state investment into education and science with an aim to reach the EU average;
- Flexible labour market should be created, through further reform of labour legislation; security of jobs should be guaranteed by the quality of work instead by the law.
- Life-long learning should be promoted;
- Professional training programmes for young and adults should be improved continuously to the extent they contribute to reallocation of labour among different industries;
- Current programmes should be improved and new ones created for those jobs where there is a surplus of demand for labour, which are now dominantly satisfied with workforce from the neighbouring countries;
- Practical training across all levels of education should be improved, knowledge should be concretised, skills should be developed and the importance of self-education through entrepreneurial learning promoted;
- High use value knowledge should continuously be worked upon through development of quality specialisation programmes especially at the level of higher education;
- External quality control should be improved at all education institutions (affirmation of quality over quantity);
- Education programmes at all levels should be designed to meet labour market needs in medium and long run;
- Enrolment policies of higher education institutions should be periodically adapted to the economic i.e. labour market needs;
- Cooperation and partnership of education institutions, public employment services and Montenegrin Employers Federation should be enhanced;

- Advisory bodies with education institutions – secondary schools/faculties/universities, consisting of employers, academic and state institutions representatives should be strengthened and founded if not existing;
- The role of career and professional guidance should be reinforced i.e. the performance of current career centres in education institutions should be improved and, where needed, new centres should be opened;
- Life-long learning programmes at the level of higher education should be developed with an aim to satisfy the needs of employers for additional/specific training of their employees; the chances of cooperation for mutual benefit should be considered: staff training = students practical training in the company;
- Mobility of students within universities should be encouraged with an aim to bolster multidisciplinary, subspecialisation and knowledge concretisation (e.g. the student of economics that intends to specialise for macro and business analytic i.e. econometrics should be enabled to attend the classes and have an exam from the set/module of concrete subjects at the Faculty of Natural Sciences and Mathematics);
- Long-term oriented human resources management at the company level should be further developed. Investing in staff is an investment not the expenditure; the ultimate objective is to create a long-term oriented human resources management (that integrates motivation, education and training, career development etc.).

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