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Quality of Human Capital As A Determinant of Innovativeness and Competitiveness Presented on the Example of the Most Innovative and Competitive Economies in the World. Rank of Turkish Economy on the International Arena.

Dünyadaki En Yenilikçi ve Rekabetçi Ekonomiler Örneğinde Yenilikçiliğin ve Rekabetçiliğin Belirleyicisi Olarak Beşeri Sermayenin Kalitesi. Uluslararası Arenada Türk Ekonomisinin Yeri.

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Abstract

Nowadays, innovations are perceived as one of the most important driving forces of socio-economic condition. Innovative capacity is, in turn, determined by various factors, among them there is human capital which continually improves its quality.

Investments in human capital in the near future may result in a variety of achievements. Appropriately armed employees frequently become authors of various valuable and important discoveries and studies which reinforce company's position on the market, but also - properly used - influence economic condition.

That is why, we should try to develop knowledge and skills in order to create economies where innovations are one of the most important drivers of economic mechanism. Therefore, so as to obtain higher level of innovation, developing actions should be taken to utilize skills and expertise of its citizens.

The aim of this article is to highlight the essence of investing in the quality of human capital, thereby improving innovative capacity of the national economy, which strengthens its international competitiveness. Studies presented on the example of the most innovative and competitive countries in the world.

Keywords: *Human Capital, İnnovativeness, Competitiveness, Economic Development*

Öz

Günümüzde, yenilikler sosyo-ekonomik durumun en önemli itici güçlerinden biri olarak algılanmaktadır. Yenilikçi kapasite, sırasıyla, çeşitli faktörler tarafından belirlenir, bunlar arasında sürekli olarak kalitesini artıran beşeri sermaye de bulunmaktadır.

Yakın gelecekte, beşeri sermayedeki yenilikler çok çeşitli başarılara neden olabilecektir. Kalifiyeli çalışanlar, sık sık şirketin pazardaki değerini yükselten ve -doğru kullanıldığında- ekonomik koşulları etkileyen çeşitli değerlerin ve önemli gelişmeler ve çalışmaların yaratıcısı olmaktadırlar.

Bu yüzden bilgiyi ve becerileri, yeniliklerin ekonomik mekanizmaların en önemli ayaklarından birisini oluşturduğu ekonomileri yaratmak için geliştirmeye çalışmalıyız. Bu nedenle, daha gelişmiş düzeyde yenilik elde etmek için eylemlerin gelişmesi, vatandaşların tecrübe ve becerilerinin kullanılması açısından gereklidir.

Bu makalenin amacı beşeri sermayenin kalitesindeki yatırımın özüne genel bir inceleme yapmak ve böylece uluslararası rekabette ülke ekonomisini güçlendiren yenilikçi kapasiteyi artırmaktır. Çalışmalar dünyadaki en yenilikçi ve rekabetçi ülke örneklerini göstermektedir.

Anahtar Kelimeler: *Beşeri Sermaye, Yenilikçilik, Rekabetçilik, Ekonomik Gelişme*

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Introduction

Innovative knowledge and ability are indispensably linked with the issue of human capital which is considered as one of the most significant factors conditioning innovativeness. Human capital may be construed as knowledge and abilities acquired by people through education system and trainings.[1]

Furthermore, human capital may be defined as knowledge resources, abilities, health, power and vital energy incorporated in human being. These resources constitute genetically conditioned potential which may be increased through the investment in human being.[2]

The role of human capital in economic development is frequently raised in various discussions and literature. The assertion that human capital constitutes significant factor of economic development resulted from the tendency to provide free and public education – practically in every developing country. This profound belief that education is a crucial factor of economic development gives a support for the assertion mentioned above. However, important seems to be the fact that even well-functioning economies do not always meet the requirements of adequate investment in education and training without government support.[3]

More precisely, human capital may be defined as accelerating force of well-functioning labour market and at the same time, determinant of economic condition of a particular country.[4]

Therefore, we shall aim at development of knowledge and abilities in order to create economies where innovations constitute driving force of economic mechanism. What is more, aiming at increase of innovations, it would be advisable to take actions developing and using abilities and knowledge of own citizens .[5]

The aim of the article is the emphasis of the issue of investing in quality of human capital and at the same time increasing innovative ability of national economy which reinforces its competitiveness on the international arena. The elaboration has been prepared on the example of most innovative and competitive countries in the world.

The Significance of Human Capital in Creating Innovativeness and Competitiveness of National Economy

Global competitiveness forces on economies and functioning within economic subjects being innovative. Innovativeness of enterprises and simultaneously complete economies is conditioned by constant rise of qualifications, competences and creativity by employees. That is why, it seems legitimate that the most important resources deciding on the development of economy is knowledge.[6]

Innovative knowledge and abilities are closely linked with the issue of human capital which is considered as one of the most important factors conditioning innovativeness. Human capital shall be construed as knowledge and abilities acquired by people through education system and trainings .[7]

Human capital means economic resources of knowledge, abilities, health and vital energy incorporated in human being and society as a whole, defining ability to work, adapt to changes in the environment and creation of new solutions.[8]

The notion of human capital also defines knowledge and abilities of particular people acquired through the system of education and professional trainings.[9]

Therefore, human capital means knowledge resources and abilities in human being which constitute genetically conditioned potential that may dramatically increase through the investment in human.[10]

1 Shultz T. W., Investment in Human Capital, [in:] American Economic Review, no 1/1961, p. 2.

2 Romański S. R., *Kapitał ludzki i wzrost gospodarczy*, PWN, Warszawa 1993, p. 35.

3 Pissarides Ch. A., *Human capital and growth: a synthesis report,* Research programme on: Human Resource Development and Poverty Reduction, OECD 2000, p. 8.

4 Denison E. F., *The sources of Economic Growth in the United States and the Alternatives Before Us*, American Economic Review, vol. 52, no. 4, New York 1962, pp. 762 – 782.

5 Ederer P., *Innovation at Work: The European Human Capital Index*, Lisbon Council Policy Brief, Deutschland Denken! eVZeppelin University gGmbH, Friedrichshafen 2006, p. 2, http://www.lisboncouncil.net/media/lisbon_council_european_human_capital_index.pdf, 04.04.2015

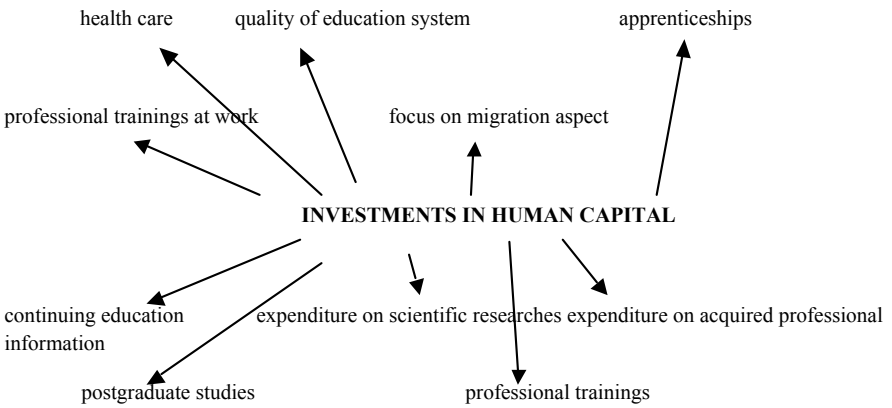
6 Kuźniar K., *Znaczenie kapitału ludzkiego dla realizacji koncepcji gospodarki opartej na wiedzy w* Polsce, [in:] Poteralski P., *Przemiany rynku pracy w kontekście procesów społecznych i gospodarczych*, Published by: Faculty of Economics and Management, University of Szczecin, Szczecin 2007, pp. 236 – 237.

7 Shultz T. W., *Investment in Human Capital*, [in:] *American Economic Review*, no 1/1961, p. 2.

8 Oleksiuk A., *Inwestowanie w kapitał ludzki w Polsce*, ECONOMICUS, Szczecin 2009, p. 9.

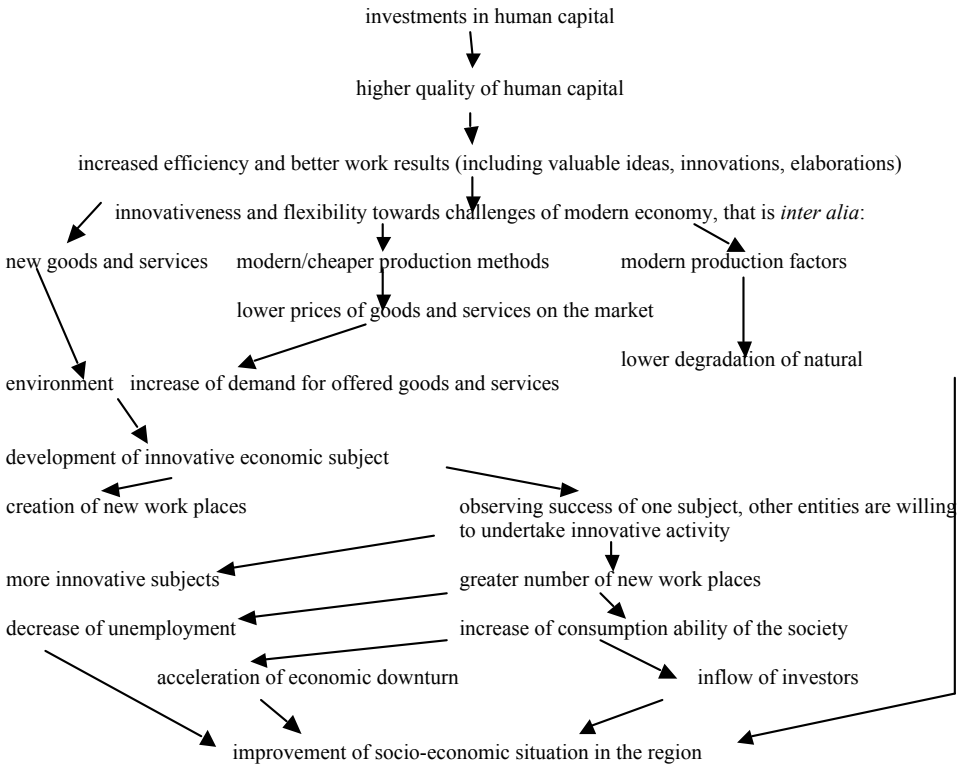
9 Welfe W., Sabanty L., Florczak W., *Szacunek kapitału ludzkiego*, [in:] *Wiadomości Statystyczne* 2001, no 5, p. 16.

10 Romański, *Kapitał ...*, op. cit., p. 35.



Source: own elaboration

Figure 1. Investments in Human Capital – Chosen Examples



Source: Own elaboration.

Figure 2. Investments in Human Capital, Innovativeness and Socio-Economic Development

That is why, significantly important seems to be the investment and continual development of human capital which is considered to be a determinant of innovative ability and therefore driving force of economic development and competitive edge.[11]

Continually proceeding globalization processes and developing competition effect in the necessity to invest in human capital. Investments in human can be defined as a set of activities which influence future pecuniary and physical income aiming at increase of human resources.[12] (see figure 1)

Moreover, investment in human capital may result in various achievements. Competently equipped employees are frequently authors of many valuable and significant discoveries and elaborations which can sustain position of a company on a particular market and what is more important, properly used may affect economic condition. (figure 2)

Condition of Human Capital and Innovativeness of Most Competitive Economies in the World

An interesting indicator which presents situation of human capital is Human Capital Index (HCI)[13], portraying influence of human capital management on the market value of the enterprise. European Human Capital Index (HCI)[14] covers ranking of countries presented in terms of ability to develop own human capital and sustaining it on the adequate level.[15]

European Human Capital Index measures stock of human capital, its relocation, use and level of development in the European countries, classifying them in terms of developing ability of native capital and meeting the requirements of globalization.[16]

Table 1includes ranking of European Human Capital Index, considering 13 best developed countries. In the top ten of the ranking, beside Sweden such countries as Denmark, Great Britain, Netherlands and Germany were placed. Economies of those countries together with Swedish economy are considered to be most competitive in the world. [17]

Unfortunately, the ranking of European Human Capital Index was created in 2006, therefore, it significantly diverges from the current state. However, it can be treated as an introduction to the discussion concerning the European human capital condition since in the further part of the article the most current embrace has been presented – results of the World Economic Forum portraying economic competitiveness and more precise state of domestic human resources capital among 30 most competitive countries in the world.

11 Stenberg L., Gustafsson E., Marklund G., *Use of human resource data for analysis of the structure and dynamics of the Swedish innovation system*, Research evaluation, vol. 6, No. 2, August 1996, pp. 121 - 132.

12 Domański S., *Kapitał ludzki i wzrost gospodarczy*, PWN, Warszawa 1993, p. 56.

13 HCI (Human Capital Index).

14 EHCI (European Human Capital Index).

15 Ederer P., Schuler P., Willms S., The European Human Capital Index: The Challenge of Central and Eastern Europe, Lisbon Council Policy Brief, Brussels 2007, p. 3, http://www.ibm.com/ibm/governmentalprograms/lisbon_council_european_human_capital_index_cee.pdf, 22.11.2008

16 Ederer P., Innovation at …, op. cit., p. 2.

17 The Global Competitiveness Report 2007 – 2008, World Economic Forum, Geneva 2007, http://www.gcr.weforum.org/, 15.07.2008

Table 1. European Index of Human Capital in 2006

Place in the ranking	Country
1	**Sweden**
2	Denmark
3	United Kingdom
4	Netherlands
5	Austria
6	Finland
7	Ireland
8	France
9	Belgium
10	Germany
11	Portugal
12	Spain
13	Italy

Source: Ederer P., Innovation at Work: The European Human Capital Index, Lisbon Council Policy Brief, Deutschland Denken! eVZeppelin University gGmbH, Friedrichshafen 2006, p. 3, http://www.lisboncouncil.net/media/lisbon_council_european_human_capital_index.pdf, 04.04.2015

The first place in the ranking shows that Sweden aims at developing of human capital and sustaining above mentioned capital on the consistent level. It concerns education of the society from the early years and intensive professional trainings.[18]

The ability of the society to develop, master and use innovations to generate economic growth and well-being, to a huge extent depends on society's natural abilities and usage of human capital. An adequate example presenting this interdependence is eBay[19]. It requires not only scientists and engineers to create the platform but also widely spread trade knowledge and entrepreneurial spirit from millions of entrepreneurs using this platform. Moreover – in order to clinch a deal – it requires hundred millions of consumers able to use the platform. eBay phenomenon proves that human capital means more than education and professional skills acquired at schools and universities. It also covers cultural abilities and social norms acquired by a child at home, informal education gained voluntarily during whole life and continuous learning present in the changes in the work environment.[20]

Analysing Table 2 it can be noticed that quality of human capital and factors increasing its innovative ability are diversely created in the range of world grid system. Once, a group of countries of high competitiveness constitute the European Union Member States and sometimes the economies out of the membership.

Generally, it can be stated that the group of countries of the highest competitiveness in terms of factors creating level of human capital are Finland, Switzerland, Singapore, Denmark, Netherlands, USA, Norway or Japan.

Worth notice seems to be the fact that economies which were usually placed on the lowest positions and definitely further than the leaders, were surprisingly placed on the first positions (Peurt Rico, Italy, Georgia).

18 Ederer P., Innovation at Work: The European Human Capital Index, Lisbon Council Policy Brief, Deutschland Denken! eVZeppelin University gGmbH, Friedrichshafen 2006, p. 3, http://www.lisboncouncil.net/media/lisbon_council_european_human_capital_index.pdf, 04.04.2015

19 eBay is a global market online authorizing for trade on a local, national and international scale. Varied and dynamic society composed of companies and particular participants of the eBay offers online platform where millions of goods are selled every day.

20 Ederer P., Dlaczego innowacje wymagają inwestycji w kapitał ludzki?, [in:] Innowacje w Europie, Komisja Europejska - DYREKCJA GENERALNA DS. PRZEDSIĘBIORSTW I PRZEMYSŁU, p. 27, ftp://ftp.cordis.lu/pub/itt/docs/ei07_1_pl.pdf, 14.10.2008

Table 2. Most Competitive Economies in the World in Terms of Selected Factors Increasing Quality of Human Capital and Innovative Abilities According to GCI 2014-2015 (The First 30 Ranks in 144 Countries Around the World)

Rank/ Country	**Competitiveness** of the economy in terms of selected factors					
	Innovation and sophistication factors	**Institution surrounding**	**Higher education and training**	**Quality of the education system**	**Availability of research and training services**	**Extent of staff training**
1	Switzerland	New Zealand	Finland	Switzerland	Switzerland	Switzerland
2	Japan	Finland	Singapore	Finland	Netherlands	Japan
3	Finland	Singapore	Netherlands	Qatar	Germany	Luxembourg
4	Germany	Rwanda	Switzerland	Singapore	Belgium	Malaysia
5	USA	Norway	Belgium	Ireland	Austria	Finland
6	Netherlands	Luxembourg	United Arab Emirates	Belgium	Finland	Qatar
7	Sweden	United Arab Emirates	USA	New Zealand	United Kingdom	Singapore
8	United Kingdom	Hong Kong SAR	Norway	Netherlands	USA	Norway
9	Denmark	Switzerland	New Zealand	United Arab Emirates	Japan	Belgium
10	Israel	Netherlands	Denmark	Malaysia	Puerto Rico	Sweden
11	Singapore	Japan	Australia	Canada	Norway	United Arab Emirates
12	Belgium	United Kingdom	Taiwan, China	Germany	Singapore	Netherlands
13	Taiwan, China	Sweden	Iceland	Cyprus	Malaysia	Germany
14	Austria	Canada	Sweden	Norway	Taiwan, China	USA
15	Qatar	Ireland	Austria	Barbados	Sweden	Denmark
16	Norway	Denmark	Germany	Malta	Hong Kong SAR	Puerto Rico
17	Malaysia	Germany	Ireland	Iceland	United Arab Emirates	New Zealand
18	Luxembourg	Rwanda	Canada	Denmark	Denmark	South Africa
19	France	Australia	United Kingdom	Australia	Qatar	Austria
20	Ireland	Malaysia	Estonia	Hong Kong SAR	Canada	Ireland
21	United Arab Emirates	Iceland	Japan	Costa Rica	France	Costa Rica
22	Korea, Rep.	Austria	Hong Kong SAR	Sri Lanka	Luxembourg	Canada
23	Hong Kong SAR	Belgium	Korea, Rep.	United Kingdom	Australia	United Kingdom
24	Canada	Oman	Portugal	Jordan	Portugal	Indonesia
25	New Zealand	Saudi Arabia	Slovenia	Luxembourg	Ireland	Iceland
26	Australia	Estonia	Lithuania	Sweden	New Zealand	Hong Kong SAR
27	Puerto Rico	Taiwan, China	Puerto Rico	USA	Czech Republic	Philippines
28	Iceland	Chile	France	Lebanon	Costa Rica	Guatemala
29	Italy	Bahrain	Spain	Philippines	Estonia	Bahrain
30	Indonesia	USA	Barbados	Kenya	Italy	Australia

Table 2. Continued

Rank/ Country	**Competitiveness** of the economy in terms of selected factors					
	Quality of scientific research institutions	**Technological readiness**	**Company spending on R&D**	**University-industry collaboration in R&D**	**Availability of latest Technologies**	**Firm level technology absorption**
1	Switzerland	Luxembourg	Switzerland	Finland	Finland	Sweden
2	United Kingdom	United Kingdom	Japan	USA	USA	Iceland
3	Israel	Sweden	Finland	Switzerland	Norway	Switzerland
4	USA	Norway	USA	United Kingdom	United Kingdom	United Arab Emirates
5	Belgium	Hong Kong SAR	Germany	Singapore	Iceland	Israel
6	Netherlands	Denmark	Sweden	Belgium	Switzerland	Japan
7	Japan	Singapore	Israel	Israel	Sweden	Finland
8	Germany	Iceland	Qatar	Qatar	United Arab Emirates	Norway
9	Australia	Netherlands	Malaysia	Netherlands	Netherlands	USA
10	Finland	Switzerland	Singapore	Germany	Israel	Qatar
11	Singapore	Finland	Belgium	Sweden	Portugal	Luxembourg
12	France	Ireland	Austria	Malaysia	Belgium	Singapore
13	Ireland	Germany	Denmark	Ireland	Luxembourg	Australia
14	Sweden	Belgium	United Kingdom	Taiwan, China	Japan	Saudi Arabia
15	Canada	Israel	France	Norway	Singapore	Germany
16	Qatar	USA	Luxembourg	Japan	Canada	Austria
17	Denmark	France	Netherlands	New Zealand	Germany	New Zealand
18	Portugal	Austria	Taiwan, China	Luxembourg	Hong Kong SAR	Denmark
19	New Zealand	Australia	Ireland	Canada	France	Korea, Rep.
20	Malaysia	Japan	Korea, Rep.	Korea, Rep.	Puerto Rico	Netherlands
21	Norway	Malta	Norway	Australia	New Zealand	United Kingdom
22	Taiwan, China	Canada	United Arab Emirates	United Arab Emirates	Ireland	Ireland
23	Hungary	New Zealand	China	Portugal	Austria	Belgium
24	Austria	United Arab Emirates	Indonesia	Austria	Australia	Jordan
25	Estonia	Korea, Rep.	El Salvador	Iceland	Qatar	Panama
26	Luxembourg	Portugal	Hong Kong SAR	Korea, Rep.	Qatar Bahrain	Portugal
27	Korea, Rep.	Spain	Canada	Lithuania	Estonia	Bahrain
28	Lithuania	Lithuania	Kenya	Hong Kong SAR	Denmark	Malta
29	Iceland	Estonia	New Zealand	France	Barbados	France
30	United Arab Emirates	Taiwan, China	India	Indonesia	Korea, Rep.	Malaysia

Table 2. Continued

Rank/ Country						
	Availability of scientists and engineers	**Scientific and technical journal articles (per 1000 people)**	**State of cluster development**	**Doing business index**	**Intellectual property protection and property rights**	
1	Finland	Switzerland	Italy	Singapore	Finland	
2	Qatar	Sweden	United Arab Emirates	New Zealand	Singapore	
3	Japan	Denmark	Germany	USA	Switzerland	
4	Greece	Finland	Switzerland	Denmark	United Kingdom	
5	USA	Norway	USA	Norway	New Zealand	
6	Puerto Rico	Netherlands	Japan	United Kingdom	Luxembourg	
7	United Arab Emirates	Israel	Singapore	Korea, Rep.	Qatar	
8	Portugal	Australia	Netherlands	Georgia	Netherlands	
9	Malaysia	Canada	Qatar	Australia	Canada	
10	Israel	Singapore	Finland	Finland	Japan	
11	Spain	Iceland	United Kingdom	Malaysia	Norway	
12	Canada	United Kingdom	Malaysia	Sweden	Germany	
13	Jordan	New Zealand	Norway	Iceland	Sweden	
14	Taiwan, China	USA	India	Ireland	Austria	
15	Ireland	Belgium	Austria	Canada	France	
16	Singapore	Ireland	Canada	Thailand	Ireland	
17	Cyprus	Slovenia	Sweden	Mauritius	South Africa	
18	Germany	Austria	Belgium	Germany	Oman	
19	Sweden	Germany	Ireland	Estonia	United Arab Emirates	
20	Sri Lanka	France	Luxembourg	Saudi Arabia	Belgium	
21	France	Spain	Saudi Arabia	Macedonia, FYR	Australia	
22	United Kingdom	Korea, Rep.	China	Japan	Denmark	
23	Italy	Italy	Brazil	Latvia	Malta	
24	Switzerland	Greece	Jordan	United Arab Emirates	USA	
25	Costa Rica	Japan	Korea, Rep.	Lithuania	Saudi Arabia	
26	Tunisia	Portugal	Indonesia	Switzerland	Bahrain	
27	Australia	Estonia	Turkey	Austria	Malaysia	
28	Lebanon	Czech Republic	France	Portugal	Iceland	
29	Chile	Luxembourg	Bahrain	Netherlands	Estonia	
30	Netherlands	Croatia	Thailand	Armenia	Jordan	

Source: own elaboration on the basis of: Schwab K., The Global Competitiveness Report 2014–2015, World Economic Forum, Geneva 2014, http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf, 19.11.2014; The Human Capital Report, World Economic Forum, Cologny/Geneva 2013, pp. 50-521.

Table 3. Innovativeness and Competitiveness of Most Competitive Countries in the World in 2014

Country	Innovativeness and sophisticated factors	Global Competitiveness Index (GCI)
Switzerland	1	1
Singapore	11	2

Table 3. Innovativeness and Competitiveness of Most Competitive Countries in the World in 2014-c.d.

Country	Innovativeness and sophisticated factors	Global Competitiveness Index (GCI)
USA	5	3
Finland	3	4
Germany	4	5
Japan	2	6
Hong Kong SAR	23	7
United Kingdom	6	8
Sweden	8	9
Norway	7	11
United Arab Emirates	16	12
Denmark	21	13
Taiwan, China	9	14
Canada	13	15
Qatar	24	16
New Zealand	15	17
Belgium	25	18
Luxembourgh	12	19
Malaysia	18	20
Austria	17	21
Australia	14	22
France	26	23
Saudi Arabia	19	24
Ireland	32	25
Korea Rep.	20	26
Israel	22	27
China	10	28
Estonia	33	29
Iceland	34	30

Bearing in mind the Figure 2 which presents influence of investments on the innovative ability and in the effect socio-economic condition, the attention shall be paid to the creation of domestic competitiveness in terms of innovativeness and factors supporting thirty most competitive economies in 2014 (Table 3).

It shall be noticed that the leaders of innovativeness and economic competitiveness are also those characterized by high competitiveness due to innovation determinants.

Condition of Human Capital, Innovativeness and Competitiveness of Turkish Economy

Analysing state of human capital, innovativeness and competitiveness of individual economies with particular attention paid to factors conditioning them. The notice shall be paid to the condition of Turkish economy.

Table 4 shows that Turkey, according to the current competitiveness report prepared by the World Eco-

Table 4. Innovativeness and Competitiveness of Turkey Among 122 Countries in the World, in 2014

Country	Innovativeness and sophisticated factors	Global Competitiveness Index (GCI)
Turkey	45	51

Source: own elaboration on the basis of: Schwab K., The Global Competitiveness Report 2014–2015, World Economic Forum, Geneva 2014, pp. 13-14, http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf, 03.04.2015.

nomic Forum was placed in the first 60 of the most competitive countries from the world, in the aggregate 120 countries were considered.

More precise embrace is presented in Table 5 which presents factors such as education, health and wellness, workforce and employment, quality of education system, education attainment, life expectancy, stress and depression problems, healthcare quality and accessibility, talent and skills of employers, staff training and training services or social mobility.

In overall analysis it may be noticed that Turkish economy is placed on a slightly worse position than the first 30. Only primary education enrolment rate places Turkey in the group of leaders, that is on the 29th place.

Table 5. Turkey in Human Capital Report, Competitiveness in Terms of Factors Presenting/Conditioning Condition of Human Capital (Among 122 Economies in the World)

Factor	**Overall index**	**Education**	**Health and wellness**	**Workforce and employment**
Rank	60	77	51	83
Factor	**Primary education enrolment rate (%)**	**Secondary enrolment rate (%)**	**Tertiary enrolment rate (%)**	**Education gender gap**
Rank	29	55	41	98
Factor	**Quality of education system**	**Primary education attainment (% population age 25+)**	**Secondary education attainment (% population age 25+)**	**Tertiary education attainment**
Rank	78	41	71	67
Factor	**Life expectancy**	**Stress (% of respondents)**	**Depression (% of respondents)**	**Healthcare quality**
Rank	42	103	75	55
Factor	**Healthcare accessibility**	**Country capacity to attract talent**	**Country capacity to retain talent**	**Easy of finding skilled employees**
Rank	48	72	68	86
Factor	**Pay related to productivity**	**Staff training**	**Training services**	**Social mobility**
Rank	55	56	65	56

Table 6. Competiveness of Turkish Economy in Terms of Factors Conditioning Innovativeness of National Economy

Factor	**Competitiveness** of the economy in terms of selected factors			
	Innovation and sophistication factors	**Institution surrounding**	**Higher education and training**	**Quality of the education system**
Rank	51	64	50	89
Factor	**Quality of scientific research institutions**	**Technological readiness**	**Company spending on R&D**	**University-industry collaboration in R&D**
Rank	64	55	89	61
Factor	**Availability of scientists and engineers**	**Scientific and technical journal articles (per 1000 people)**	**State of cluster development**	**Doing business index**
Rank	**59**	**36**	**27**	58
Factor	**Extent of staff training**	**Firm level technology absorption**	**Availability of research and training services/ latest technologies**	**Intellectual property protection and property rights**
Rank	91	**34**	57/45	50

Source: Own elaboration on the basis: Schwab K., The Global Competitiveness Report 2014–2015, World Economic Forum, Geneva 2014, http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf, 02.04.2015 r. and The Human Capital Report, World Economic Forum, Cologny/Geneva 2013, pp. 500-501.

If it comes to competitiveness of domestic economy in the light of factors conditioning competitiveness of domestic economy, Turkey fares extremely well in terms of state of cluster development, firm level technology absorption or scientific and technical journal articles (per 1000 people), which locates the country in the first 40 of the ranking.

Unfortunately, Turkish economy fares itself relatively bad in terms of quality of the education system, Company spending on R&D and Extent of staff training, which significantly reflects quality of domestic human capital.

Conclusions

Willing to meet the expectations of accelerating globalization processes, socio-economic changes, economies and functioning within economic entities shall be flexible and ready for the continuous adjustments to the current situation. Innovativeness, conditioned by various factors, among which investments in human capital constitute a key issue, may be significantly helpful.

Through investments and at the same time increase of human capital can be construed as activities such as education system, professional trainings and the range of those trainings, competent health care as well as ability to find and use talented sources of the capital.

It shall be noticed that the countries placed relatively high in the competitiveness ranking in terms of various factors conditioning quality of human capital, are also placed in the group of most innovative and competitive countries in the world. Successful, seems to be the information that Turkey among 120 countries from all over the world, takes place in the first 50, in consideration of factors such as primary and tertiary education enrolment rate, life expectancy, healthcare accessibility, higher education and training, or state of cluster development, firm level technology absorption or scientific and technical journal articles (per 1000 people).

Employees equipped in adequate abilities and qualifications as well as being of a good health and vital energy are frequently authors of many valuable and innovative ideas and solutions which finally may be reflected in innovativeness and competitive position on the market. The more of such behaviours are observed, the highest innovative and competitive ability of a whole economy is. Therefore, investing and looking after domestic human capital shall be treated as

a priority by all countries, including those most innovative and competitive in the world, willing to sustain own position on the international arena, and willing to reinforce won innovativeness and competitiveness and socio-economic growth.

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