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# HUMAN CAPITAL AND THE LEVEL AND QUALITY OF LIFE IN THE EUROPEAN UNION COUNTRIES IN THE PERIOD 2005-2015

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## KAPITAŁ LUDZKI ORAZ POZIOM I JAKOŚĆ ŻYCIA W KRAJACH UNII EUROPEJSKIEJ W LATACH 2005-2015

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**Summary:** The major research objective of this article is to investigate the connections between human capital accumulated in 25 EU countries and the level and quality of life recorded in these countries in the 2005-2015 time period. Three research tasks were subordinated to the process of reaching the defined goal, the first of which was to make a concise theoretical presentation of the concept and determinants of human capital in the broad sense. The second stage of the research conducted involved the construction (using taxonomic methods) of a synthetic measure of human capital accumulated in the EU in 2005-2015 and the development of international rankings for the degree of human capital development. The final task is the most important one considering the objective of the work – this was the analysis of correlation relationships occurring in 2005-2015 between the synthetic measure of human capital and selected indicators of the level and quality of life estimated for the EU countries.

**Keywords:** human capital, standard of living, quality of life, prosperity.

**Streszczenie:** Głównym celem niniejszego artykułu jest zbadanie związków łączących kapitał ludzki akumulowany w 25 krajach Unii Europejskiej z poziomem i jakością życia odnotowywanymi w tych państwach w latach 2005-2015. Procesowi dochodzenia do tak zdefiniowanego celu podporządkowano trzy zadania badawcze, z których pierwszym było dokonanie zwięzłej teoretycznej prezentacji pojęcia i determinant kapitału ludzkiego *sensu largo*. Drugi etap prowadzonego badania polegał na skonstruowaniu (z wykorzystaniem metod taksonomicznych) syntetycznej miary kapitału ludzkiego zakumulowanego w krajach Unii Europejskiej w latach 2005-2015 oraz na opracowaniu międzynarodowych rankingów stopnia rozwoju kapitału ludzkiego. Z kolei ostatnim zadaniem – najważniejszym z punktu widzenia celu pracy – była analiza związków korelacyjnych występujących w latach 2005-2015 między

syntetyczną miarą kapitału ludzkiego a wybranymi wskaźnikami poziomu i jakości życia szacowanymi dla krajów Unii Europejskiej.

**Słowa kluczowe:** kapitał ludzki, standard życia, jakość życia, dobrobyt.

## 1. Introduction

In recent decades there has been a significant increase of interest in the level and quality of life among researchers from various scientific disciplines, international organizations, governmental institutions and citizens. At the root of this increased interest are the so-called new goals for the development of states and societies, including sustainable development, social cohesion and the pursuit of improving the standard of living and the ‘humanization’ of economic phenomena, as well as new challenges related to the growing world population, ageing society and climate change [Zalewska 2012; Kubiczek 2014]. The popularity of research on the nature and determinants of the level and quality of life is also associated with the progressing processes of globalization and internationalization, the growing role of information, new models of managing material and immaterial resources of economies, and benchmarking that is currently more widely used in macroeconomics [Grzega 2015; Berger-Schmitt, Jankowitsch 1999]. As a result, all of the above-mentioned phenomena lead to the perception of the level and quality of life in terms of the overarching goal of socio-economic development.

Apart from the definition differences (resulting mainly from the interdisciplinary and multi-layered nature of the issue), the concept of standard of living is understood as the quality of actual living conditions assessed on the basis of the degree of satisfying human needs through the consumption of goods and services, as well as using the values of the natural and social environment [Bywalec, Wydymus 1992; Piasny 1993; Miękała-Warchoł 2010]. In turn, the quality of life is most often interpreted as the ‘personal perception of one’s life situation, in the context of cultural conditions and the value system in which one lives, in relation to his/her goals, expectations, norms, interests and fears’ [WHOQOLGroup 1995] or, very generally, as life satisfaction and a sense of happiness [Papuć 2011]. In light of the above definitions, it can be stated that the level and quality of life are nowadays a very broad concept, taking into account not only the economic aspects of human existence (*e.g.* income or consumption expenditure), but also social and subjective conditions (*e.g.* physical health, mental state, life expectancy, access to education, social bonds, state of the environment, equality, security, and independence) [Sirgy et al. 2006; Morais et al. 2013]. In this context, the author finds the question interesting of whether the countries characterized by a higher level and quality of life have better conditions for the development and accumulation of human capital, and thus, whether they have a higher value. An attempt to answer this question is the subject of this article.

The main research objective of the work is to examine the relationships linking human capital accumulated in 25 European Union countries<sup>1</sup> with the level and quality of life recorded in these countries in 2005-2015<sup>2</sup>. Three research tasks were subordinated to the process of achieving the goal thus defined:

- making a concise theoretical presentation of the concept and determinants of human capital in the broad sense,
- constructing (using taxonomic methods) a synthetic measure of human capital accumulated in the European Union in the period 2005-2015 and developing international rankings of the degree of human capital development on the basis of this measure,
- examining the existence and strength of correlation relations between the synthetic measure of human capital and selected indicators of the level and quality of life in the European Union countries in 2005-2015.

The above-mentioned tasks are consistently implemented in the next sections of the presented study.

## **2. Characteristics and measurement of human capital accumulated in the European Union countries in 2005-2015**

In this article, human capital is analysed in a broad sense and is understood as the total of intangible resources of human psychophysical features – innate and acquired during formal and informal education, and through experience and environmental adaptation - with values that change over time that can be renewed and increased through investment in a human being and which will be in the future a source of its productivity, income or satisfaction [Walukiewicz 2010; Grodzicki 2003; Madrak-Grochowska 2016]. The ‘carriers’ of human capital defined in this way are well-educated, highly qualified and creative people who are characterized by broad knowledge and present extensive skills in its creation and practical use, surrounded by high-quality health care, as well as having education and skills properly adapted to the current requirements of the labour market, professional experience and competences in the use of modern ICT technologies [Makuch 2009; Laroche et al. 1999; Domański 1993; Balcerzak 2011].

The definition of human capital in the broad sense cited above and adopted in the further part of the work obliged the author to consider this economic category in the context of complex phenomena. This means that the state and level of human capital development cannot be characterised by means of one quantitative or qualitative

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<sup>1</sup> The countries that were subject to the empirical study were those that were European Union member states during the whole period analysed. Therefore, the research presented in the article did not cover Bulgaria, Romania, and Croatia.

<sup>2</sup> The time horizon of the study was dictated by the availability of complete and reliable statistical data for all the countries analysed in the article.

variable, but it must be treated as a directly immeasurable qualitative feature, which requires description by a number of diagnostic variables and involving the use of multidimensional statistics tools [Kukuła 2000; Nowak 1990]. For this reason it was decided to measure human capital accumulated in the considered European Union countries in 2005-2015 using one of the taxonomic methods, the pattern method, following the procedure described below.

The first stage of such research consisted in selecting potential diagnostic variables, namely the specification of features, which, according to the analysis of economic theories, expert opinions, and knowledge resulting from literature studies and substantive and formal criteria, were initially recognized as important determinants of human capital and for which it was possible to gather complete, comparable and reliable statistical data. Among them were 34 variables, representing five characteristic areas of human capital, *i.e.* education, health and life, science and research and development, employment as well as knowledge and skills on the labour market, and ICT skills. The list of these features is presented in Table 1.

**Table 1.** A set of potential diagnostic variables selected to measure the degree of development of human capital accumulated in the European Union countries in 2005-2015

Symbol of a potential diagnostic variable	The name of the potential diagnostic variable (units/scale)
1	2
Area I – Education	
$X_1$	Average number of years of education (years)
$X_2$	Expected number of years of education (years)
$X_3$	Total schooling for pre-school education (%)
$X_4$	Total schooling for primary schools (%)
$X_5$	Total schooling for secondary schools (%)
$X_6$	Total schooling for higher education (%)
$X_7$	Percentage share of people with at least secondary education in the group of people aged 25 and above (%)
$X_8$	Average result of PISA_Reasoning in natural sciences (points) *
$X_9$	Average result of PISA_Reading and interpretation (points) *
$X_{10}$	Average result of PISA_Mathematical skills (points) *
$X_{11}$	Public expenditure on education as a percentage of GDP (%)
Area II – Health and life	
$X_{12}$	Life expectancy at birth (years)
$X_{13}$	Birth rate per thousand inhabitants (number)
$X_{14}$	Death rate per thousand inhabitants (number)

1	2
X <sub>15</sub>	Infant mortality rate per thousand live births (number)
X <sub>16</sub>	Total health expenditure as a percentage of GDP (%)
Area III – Science and research and development	
X <sub>17</sub>	Number of researchers engaged in R&D activities per million inhabitants (number)
X <sub>18</sub>	Number of technicians involved in R&D activities per million inhabitants (number)
X <sub>19</sub>	Number of patent applications to the EPO per million inhabitants (number)
X <sub>20</sub>	Total expenditure on R&D as a percentage of GDP (%)
Area IV – Employment and knowledge and skills on the labour market	
X <sub>21</sub>	Employment rate (%)
X <sub>22</sub>	Percentage share of persons employed with primary education in the total of persons with primary education (%)
X <sub>23</sub>	Percentage share of persons employed with secondary education in the total of persons with secondary education
X <sub>24</sub>	Percentage of persons employed with higher education in the total of persons with higher education (%)
X <sub>25</sub>	Percentage of people not attending any school and unemployed in the group of people aged 15-24 (%)
X <sub>26</sub>	Percentage of employed persons participating in vocational training and courses during the last 12 months (%)
X <sub>27</sub>	Percentage of employees whose work is related to raising qualifications and/or skills (%)
X <sub>28</sub>	Percentage of persons employed using the acquired knowledge and skills in their current job (%)
Area V – ICT skills	
X <sub>29</sub>	Percentage of people regularly using the Internet in the group of people aged 16 to 74 (%)
X <sub>30</sub>	Percentage of people using online banking in a group of people aged 16 to 74 (%)
X <sub>31</sub>	Percentage of people making online purchases in the group of people aged 16 to 74 (%)
X <sub>32</sub>	Percentage of people using online refresher courses in the group of people aged 16 to 74 (%)
X <sub>33</sub>	Percentage of people using the Internet in contact with public authorities in the group of people aged 16 to 74 (%)
X <sub>34</sub>	Number of mobile phones per one hundred inhabitants (number)

In the case of a potential diagnostic variable marked with the symbol \*, it was necessary to substitute for the observation matrix 2006 data in place of inaccessible information from 2005 and data from 2009 in place of inaccessible information from 2010.

Source: own study.

The set of potential diagnostic features specified in Table 1 was evaluated according to the criteria of the information value of variables. The first of them was the postulate of high spatial variability, while the basis for the elimination of the  $X_j$  feature from further analyses was the value of the coefficient of variation not exceeding the 10% limit [Madrak-Grochowska 2016]. According to the chosen threshold value, the features  $X_2, X_4, X_8, X_9, X_{10}, X_{12}, X_{21}, X_{23}$  and  $X_{24}$  were considered quasi-permanent variables and were excluded from further analyses. Then, from among the 25 variables remaining in the study, their representatives were selected using the parametric Hellwig method (used separately for each of the five identified areas of human capital) with an arbitrarily set threshold correlation coefficient  $r^*$  equal to 0.8 [Hellwig 1981]. According to the basic criterion of this method, the features  $X_1, X_3, X_5, X_6, X_{11}, X_{13}, X_{14}, X_{15}, X_{16}, X_{18}, X_{20}, X_{22}, X_{25}, X_{26}, X_{27}, X_{28}, X_{30}, X_{31}, X_{32}$  and  $X_{34}$  were classified into the set of final variables, which in each or in most of the analysed periods were diagnosed as central or isolated variables.

Having completed the stage of specification of the final diagnostic features of human capital accumulated in the European Union countries in 2005-2015, the process of their normalization was carried out using the zero unitarisation method [Kukuła 2000]. It was taken into account that in order to regulate the variables which stimulate human capital (*i.e.*  $X_1, X_3, X_5, X_6, X_{11}, X_{13}, X_{16}, X_{18}, X_{20}, X_{22}, X_{26}, X_{27}, X_{28}, X_{30}, X_{31}, X_{32}$  and  $X_{34}$ ) and which are its destimulants (*i.e.*  $X_{14}, X_{15}$  and  $X_{25}$ ), it is necessary to apply appropriate transformations regarding the pattern and anti-pattern. As a result, features with values in the range [0; 1] were received and all of them were already stimulants in nature.

The normalized diagnostic variables were then subjected to a weighing procedure, assuming that each of the five areas characterizing different aspects of human capital is equally important for the process of its full-featured development and underlining that only the uniform and systematic strengthening of all five spheres of human capital can bring synergy. For this reason, each of the areas of human capital under consideration was granted, as part of the conducted taxonomic study, an equal (20%) share in the construction of a synthetic measure of the degree of human capital development, and each of the features – but only in relation to a given sphere – was given the same validity status [Madrak-Grochowska 2015].

The final task that had to be performed in the process of constructing a synthetic measure of human capital accumulated in the European Union in the years 2005-2015 was to use the appropriate additive aggregation function (whose form was strongly determined by the weight system adopted in the previous step) with the following formula:

$$SMHC_i = \sum_j z_{ij} \times \omega_j,$$

where:  $SMHC_i$  is a synthetic measure of human capital accumulated in the  $i$ -th European Union member country ( $i = 1, 2, \dots, 25$ ) taking values in the range  $[0; 1]$ ,  $z_{ij}$  are the values of individual normalized final diagnostic variables ( $j = 1, 3, 5, 6, 11, 13, 14, 15, 16, 18, 20, 22, 25, 26, 27, 28, 30, 31, 32, 34$ ) for the  $i$ -th country, and  $\omega_j$  is the weight assigned to them, with  $j = 1, 3, 5, 6, 11$   $\omega_j = 1/25$ ; for  $j = 13, 14, 15, 16$   $\omega_j = 1/20$ ; for  $j = 18, 20$   $\omega_j = 1/10$ ; for  $j = 22, 25, 26, 27, 28$   $\omega_j = 1/25$ ; and for  $j = 30, 31, 32, 34$   $\omega_j = 1/20$ .

The aggregation formula presented above was used to determine synthetic measures of human capital development in the European Union countries analysed for 2005, 2010 and 2015, and then the values of these measures were used to develop international rankings of human capital accumulated in individual European Union countries and to group these countries (in accordance with the typology method adopted in the work, based on the arithmetic mean and standard deviation) into four disjoint classes [Zeliaš (ed.) 2000]. The results of these studies are presented in Table 2.

Having analysed the typological groups identified in Table 2, it can be noted that the European Union countries with very high and highly developed human capital are concentrated – in geographical terms – primarily in Scandinavia and in Northern and Western Europe. Among these countries, Finland, Denmark and Sweden deserve special distinction, and in all three research periods they were classified into the highest typological group, achieving each time the three top positions in the developed rankings of the degree of human capital development. In addition, in 2005-2015 in the group of countries with a very high or high level of human capital there were invariably Holland, Austria, Luxembourg, Belgium, France, Germany, Great Britain, Ireland and Slovenia, which confirms the high stability of this typological class and indirectly indicates the fact that the process of building and developing human capital accumulated in a given country is a long-term process, requiring long-term, sustainable actions in this respect. What is worrying, however, is the fact that the largest economies of the European Union, namely Germany, France and the United Kingdom, despite being in the group of countries with a high degree of human capital development, ranked between seventh and twelfth positions in the considered research periods. In turn, when analysing the European Union countries from the perspective of economies classified in Table 2 into two lower typological groups, it can be seen that in geographical terms these countries were concentrated mainly in Southern and Central and Eastern Europe. Some of them, *i.e.* the Czech Republic, Estonia, Spain, Italy, Malta, Portugal and Lithuania, were classified in the developed rankings as countries with a medium degree of human capital development. Others, such as Greece, Cyprus, Poland, Slovakia, Hungary, and Latvia, in most cases were in the lowest positions in the rankings of the degree of human capital development, qualifying for the weakest typological group.

**Table 2.** Positions in the ranking, typological groups and values of the synthetic measure of human capital accumulated in the European Union in 2005-2015

Year 2005			Year 2010			Year 2015		
Position in the ranking	Country	SMHCi	Position in the ranking	Country	SMHCi	Position in the ranking	Country	SMHCi
1.	Finland ■	0.7246	1.	Finland ■	0.7384	1.	Finland ■	0.7460
2.	Denmark ■	0.6910	2.	Denmark ■	0.7043	2.	Sweden ■	0.7412
3.	Sweden ■	0.6772	3.	Sweden ■	0.6687	3.	Denmark ■	0.7000
4.	Holland ■	0.5933	4.	Holland ▲	0.5955	4.	Holland ■	0.6560
5.	Luxembourg ▲	0.5623	5.	Austria ▲	0.5729	5.	Austria ▲	0.6143
6.	Belgium ▲	0.5351	6.	Luxembourg ▲	0.5687	6.	Luxembourg ▲	0.6080
7.	Austria ▲	0.5110	7.	Belgium ▲	0.5530	7.	Great Britain ▲	0.6013
8.	France ▲	0.4926	8.	France ▲	0.5345	8.	Belgium ▲	0.5951
9.	Germany ▲	0.4910	9.	Germany ▲	0.5267	9.	Germany ▲	0.5729
10.	Great Britain ▲	0.4747	10.	Ireland ▲	0.5036	10.	France ▲	0.5623
11.	Ireland ▲	0.4723	11.	Slovenia ▲	0.4969	11.	Estonia ▲	0.5151
12.	Slovenia ▲	0.4441	12.	Great Britain ▲	0.4969	12.	Slovenia ▲	0.5087
13.	The Czech Republic ●	0.3995	13.	The Czech Republic ●	0.4171	13.	Ireland ▲	0.4957
14.	Estonia ●	0.3806	14.	Spain ●	0.4143	14.	The Czech Republic ●	0.4632
15.	Spain ●	0.3805	15.	Estonia ●	0.4022	15.	Malta ●	0.4314
16.	Italy ●	0.3665	16.	Malta ●	0.3804	16.	Spain ●	0.4242
17.	Malta ●	0.3506	17.	Portugal ●	0.3730	17.	Portugal ●	0.3680
18.	Portugal ●	0.3494	18.	Italy ●	0.3639	18.	Italy ●	0.3371
19.	Latvia ●	0.2930	19.	Lithuania ●	0.3050	19.	Lithuania ●	0.3358
20.	Lithuania ●	0.2896	20.	Cyprus ●	0.3038	20.	Latvia ◆	0.3295
21.	Greece ◆	0.2658	21.	Poland ◆	0.2931	21.	Cyprus ◆	0.3185
22.	Cyprus ◆	0.2616	22.	Slovakia ◆	0.2600	22.	Slovakia ◆	0.3171
23.	Poland ◆	0.2358	23.	Greece ◆	0.2545	23.	Poland ◆	0.3154
24.	Slovakia ◆	0.2334	24.	Hungary ◆	0.2497	24.	Hungary ◆	0.2735
25.	Hungary ◆	0.2279	25.	Latvia ◆	0.2494	25.	Greece ◆	0.2391

Comments:

The symbols ■, ▲, ●, ◆ indicate countries with very high, high, medium, and low levels of human capital development, respectively<sup>3</sup>.

Source: own study.

<sup>3</sup> It should be very clearly emphasized that the terms used here (very high, high, medium, and low levels of human capital development) and the classifications made make sense only in relation to the European Union countries analysed in this paper. In no case, however, they can be transferred to research on a different, and in particular a wider, spatial scope.



### 3. Analysis of the relationship between human capital and the level and quality of life in the European Union countries in 2005-2015

Having constructed a synthetic measure of human capital, it was possible to proceed to the implementation of the last – and thus crucial for the purpose of this article – research task, which was to analyse the correlation relationships occurring in 2005-2015 between human capital accumulated in the European Union countries and (differing from each other in conceptual and methodological terms) the measures of the level and quality of life in these countries, such as GNP *per capita* (calculated according to the purchasing power parity of international dollars with the base year 2011)<sup>4</sup>, the *Human Development Index (HDI)*<sup>5</sup>, a well-being index – the *Legatum Prosperity Index*<sup>6</sup> and an index measuring quality of life in the past referred to as the *Quality of Life Index* and at present called the *Where-To-Be-Born Index*<sup>7</sup>. Due to the fact that human capital and the above-mentioned measures of level and quality of life (except for GNP *per capita*) are qualitative features, allowing for ordering due to the strength of the feature, it was decided to use the Spearman rank correlation coefficient (Rho) to study the correlation and assume a significance level of 0.1. The results of the calculations carried out (together with the estimated level of significance), as well as graphs showing the respective relationships are presented in Figures 1, 2, 3, and 4.

Analysing the information contained in Figure 1, it can be seen that in each of the considered research periods it was possible to capture a statistically significant, strong positive correlation between human capital accumulated in the European Union countries and GNP *per capita* (2011PPP\$). This observation seems to confirm the supposition that countries with a higher income *per capita* have the opportunity to make relatively larger investments in the field of education, medicine, science, culture, *etc.* (*i.e.* investments in increasing the human capital accumulated in the economy) and hence, better chances for faster and more effective development of human capital. In turn, poorer countries – due to the insufficient number of investment in human capital – are exposed to its slower development or to its stagnation and even degradation.

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<sup>4</sup> The statistical data used in this correlation study were obtained from the World Bank website <https://data.worldbank.org/>.

<sup>5</sup> A detailed description of the *Human Development Index (HDI)*, a description of the methodology for calculating this indicator and the statistical data used in this correlation study can be found at <http://hdr.undp.org/en/data>.

<sup>6</sup> The detailed characteristics of the *Legatum Prosperity Index*, the method of calculating this index and the statistical data used in this correlation study are available at <https://www.prosperity.com/>.

<sup>7</sup> The detailed characteristics of the *Quality of Life Index/Where-To-Be-Born Index*, a description of the methodology for calculating this index and the statistical data used in this correlation study can be found at <https://www.economist.com/>.

A very strong positive correlation relationship (with the Spearman's rank correlation coefficient exceeding 0.8<sup>8</sup>) was also observed when studying the relationship between human capital and *HDI*, which is a synthetic measure of socio-economic development of countries based on the assessment of countries in the following three areas: a long and healthy life, knowledge, and a prosperous standard of living. Figure 2 clearly shows that European Union countries with a higher *HDI* index (*i.e.* richer countries with a higher life expectancy and a higher average and expected number of years of education) were characterized in 2005-2015 by the higher values of human capital accumulated in them.

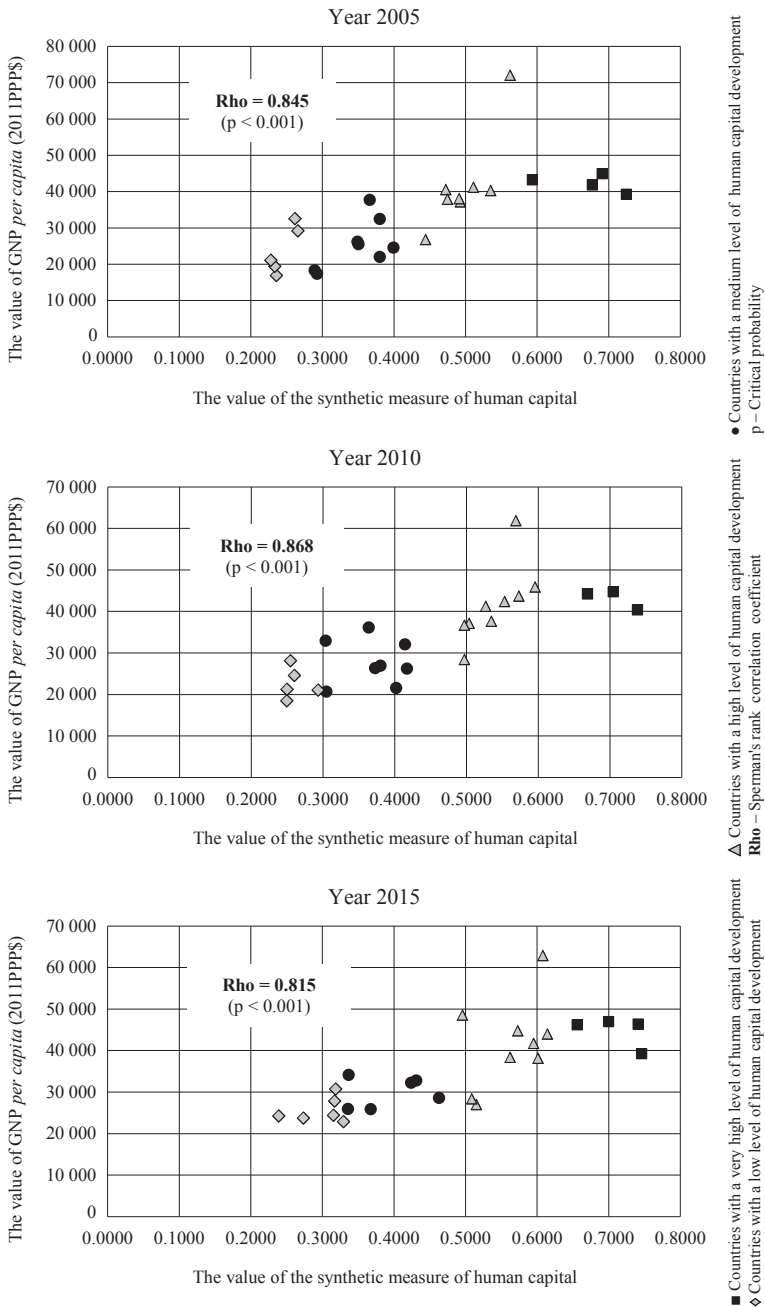
Analysing the information presented in Figure 3, it can be seen that the strongest positive correlation (with Spearman's rank correlation coefficient exceeding even 0.9) was observed in the study of the relationship between human capital and the *Legatum Prosperity Index*, based on 104 variables characterizing aspects of level and quality life such as economic quality, business environment, governance, education, health, safety and security, personal freedom, social capital and natural environment. This means that in the period 2005-2015, human capital achieved higher values in those countries of the European Union which were characterized not only by better economic and social conditions of being, but also by higher assessments of environmental and subjective aspects of measuring the level and quality of life.

The last of the correlation studies (see Figure 4) showed that in 2005 there was a moderate positive correlation relationship between human capital accumulated in the European Union countries and the *Quality of Life Index*, composed of nine variables representing areas of quality of life such as material well-being, health, political stability and security, family life, community life, climate and geography, job security, political freedom and gender equality. In turn, in 2010 and 2015<sup>9</sup> a strong positive correlation was observed between human capital and the same quality of life index, but already functioning under the name of the *Where-To-Be-Born Index*. Each of these observations confirms that in the entire research period analysed higher levels of quality of life in a given European Union country were accompanied by the higher values of human capital accumulated in them.

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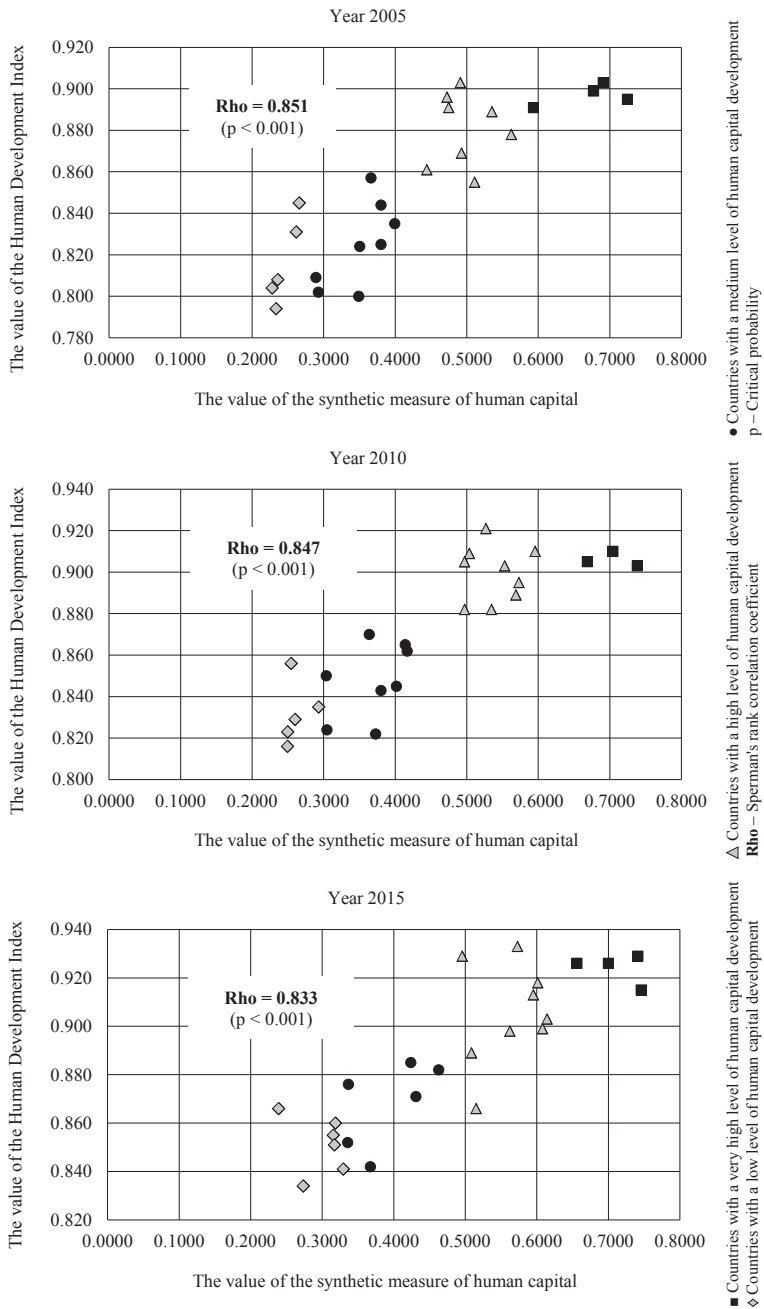
<sup>8</sup> This result should be interpreted with a cautious approach due to the fact that in the set of 20 final diagnostic variables that are part of the synthetic measure of human capital developed by the author, and among four variables that are components of the *HDI*, there is one common feature, the average number of years of study.

<sup>9</sup> While performing the correlation study, there occurred a need, in relation to the *Where-To-Be-Born Index*, to substitute 2013 observation data for the observation matrix instead of inaccessible information from 2015.



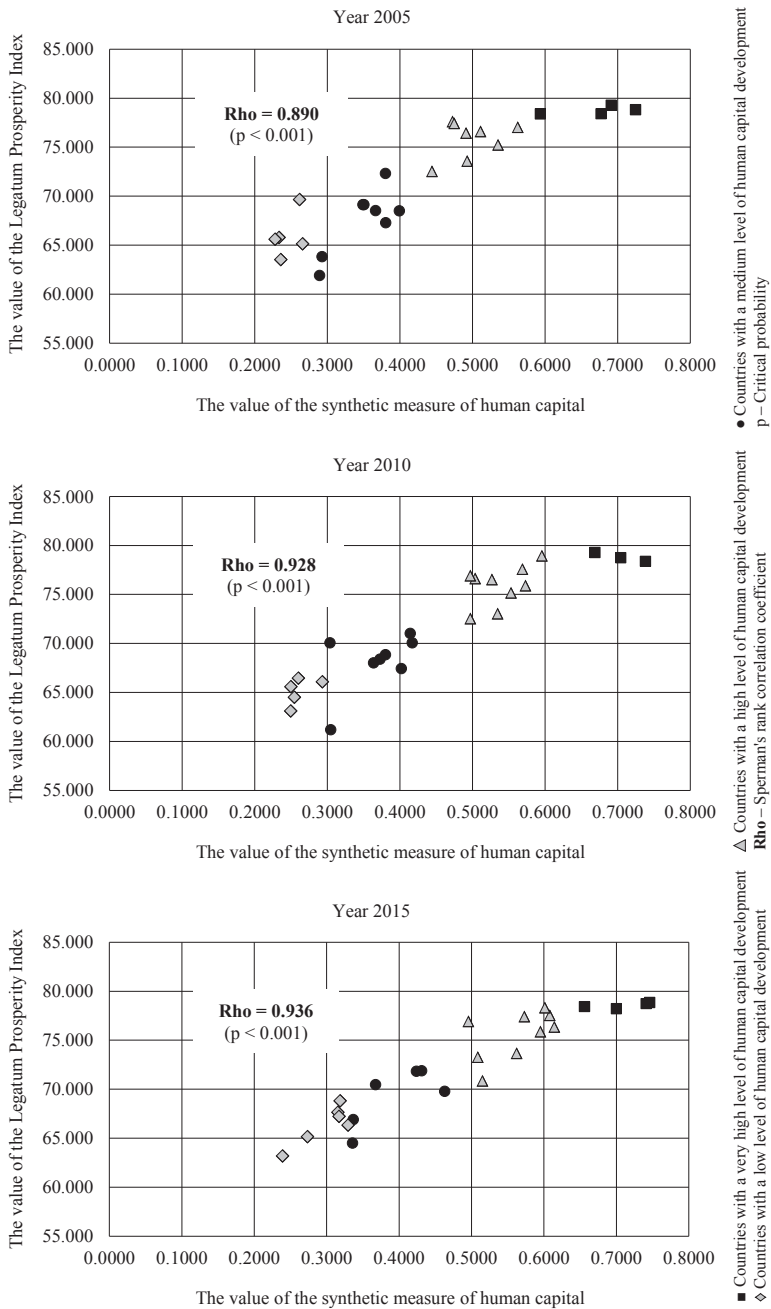
**Fig. 1.** Correlation between the synthetic measure of human capital and GNP per capita (2011PPP \$) in the European Union countries in 2005-2015

Source: own study.



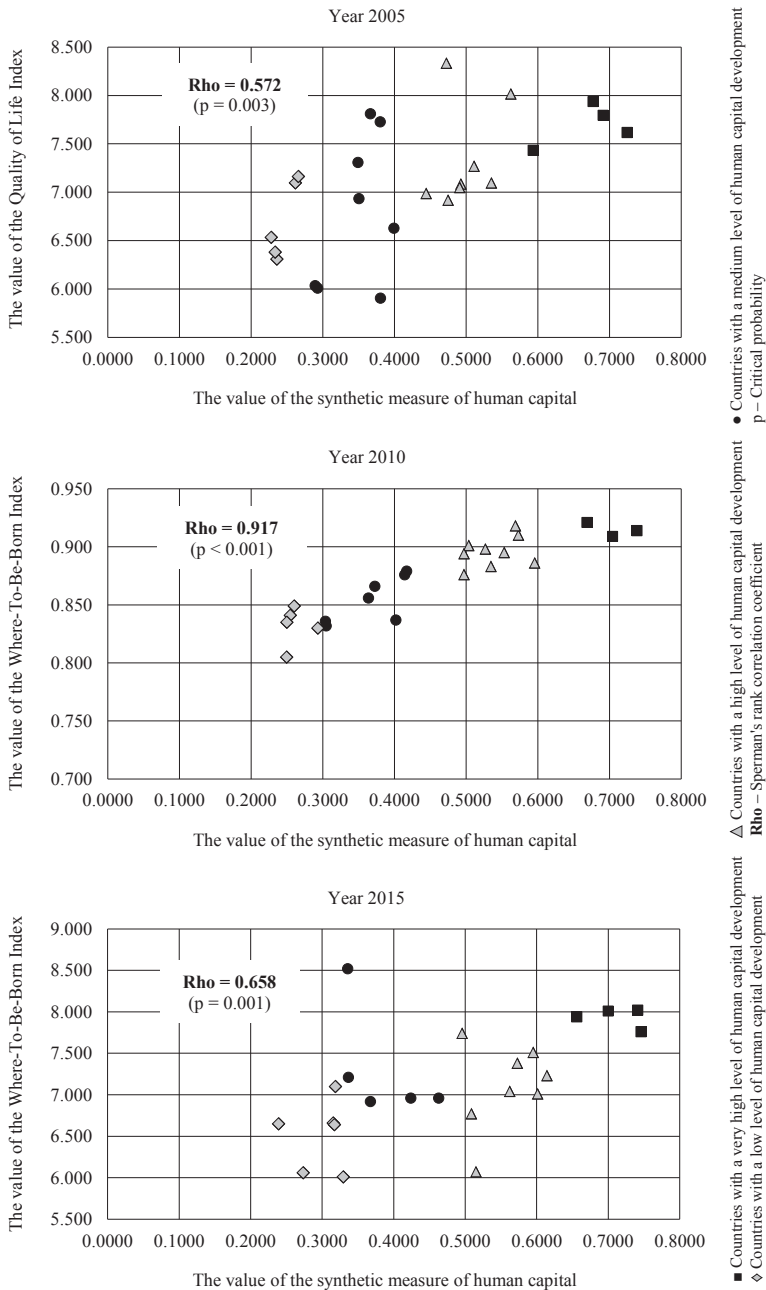
**Fig. 2.** Correlation between a synthetic measure of human capital and the *HDI* in the European Union countries in 2005-2015

Source: own study.



**Fig. 3.** Correlation between a synthetic measure of human capital and the *Legatum Prosperity Index* in the European Union countries in 2005-2015

Source: own study.



**Fig. 4.** Correlation between a synthetic measure of human capital and the *Quality of Life Index/Where-To-Be-Born Index* in the European Union countries in 2005-2015

Source: own study.

## 4. Conclusion

Based on the results of the analyses carried out in the work, it was found that in the European Union countries in 2005-2015 there was a statistically significant, strong (and in only one case moderate) positive correlation between human capital and the measures of the level and quality of life such as GNP *per capita* (2011PPP \$), the *Human Development Index*, the *Legatum Prosperity Index* and the *Quality of Life Index*, formerly known as the *Where-To-Be-Born Index*. These observations seem to confirm the supposition that countries characterized by a higher level and quality of life have better economic, social and environmental conditions for the development and accumulation of human capital, and thus have a higher value. These conclusions may contribute to the initiation of research of a wider spatial and/or temporal range and be the basis for strategies for the development of economies in which human capital would function as a key factor of sustainable development and a source of long-term competitive advantage, and the level and quality of life would be considered in terms of the overarching goal of states and societies.

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