THE TRANSPORTATION AND LOGISTICS SECTOR'S PERFORMANCE AND THE SOCIAL DEVELOPMENT – A COMPARISON WITHIN THE EUROPEAN UNION

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Abstract. Economic and social development is influenced also by the performance of the logistics and transportation sector. This sector's performance enhances at its turn trade performance, but also increases incomes and employment gains, leading to the diminishing of poverty rates. In our paper we analyzed the influence of the transportation and logistics' performance on social development, by comparing EU's former communist countries and the other 18 countries (namely three indicators - the LPI, the HDI, and the IHDI). Our results allowed us to conclude that European countries with performing transportation and logistics sector are also the countries recording the highest levels of social development.

JEL Classification: C44, F66

Keywords: logistics, LPI, social development, Human Development Index, Inequality-adjusted Human Development Index

1. Social development and the performance of transportation and logistics

Efficient logistics facilitate transportation in international trade, and therefore, trade. The need for performing transportation and logistics sectors is vital, as developed nations engage increasingly in international vertical specialization. Performing transportation and logistics sector improve a country's competitiveness, by reducing transport costs, including countries situated far from major markets within global supply chains (Korinek & Sourdin, 2011).

Essential components of modern global supply chains are performing transportation & logistics industries. A series of economic actors (logistics service providers, shipping companies and other transportation companies) move both people and products facilitating trade (PwC, 2015). The global supply chains will evolve

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and reconfigure in accordance with the new trade corridors between Asia and South America, Asia and Africa and within Asia. The global marketplace will include reconfigured least developed countries and "trade volumes will shift towards emerging markets". The evolution of the world economy is influenced heavily by the transport and logistics operators in the emerging markets. These operators will radically change trading networks, in their expansion to new markets, strengthening the transport links between their domestic markets and the world (PwC, 2015).

The aim of our paper is to analyze the influence of transportation and logistics performance on social development at EU level, by comparing the former communist countries and the other EU member states in terms of social development and transportation and logistics performance. Our paper has five parts. In the first part, we present the connections between logistics performance and social development as reflected by literature. In the second part, we shortly present the three main indicators: Logistics Performance Index (LPI)[1], Human Development Index (HDI), and Inequality-adjusted Human Development Index (IHDI)[2], the indicators we will use in our analysis. Thirdly, we use an econometric analysis to test the relationship between the three selected indicators. We apply a linear regression in order to establish the correlations between the indicators and afterwards we present the main results. Further on, we focus on the influence of logistics performance on social development, as a comparative study between the levels of LPI, and the IHDI of the EU former communist countries and the other EU18 countries. Therefore, we split the EU into two parts: the group of the former communist countries – member countries of the EU, and the group with the rest of the EU countries. For these countries, we will analyze the logistics performance index and some specific indicators of social development. Our paper ends with the concluding remarks.

The sector of transportation and logistics is a key factor in global supply chains and global value chains (GVC), having the role to connect countries, spread technology and promote best practices, improving the overall performance of different economic sectors. Global supply chains and global value chains include developing countries, low-income countries and least-developed countries. According to Ben Shepherd (Shepherd, 2013) countries with higher logistics performance, have a tendency to specialize in manufacturing GVCs.

There are numerous links between the transportation and logistics sector and economic and social issues. Transportation and logistics improve the performance of trade, fact which leads to higher incomes, employment gains, reduction of poverty, the economic empowerment of women, increases in exports and imports, diversifications of exports, increases of economic growth, and higher environmental sustainability (Shepherd, 2013). In this article, we will focus on six impacts of logistics and transportations' performance on social development.

Firstly, one impact of transportation and logistics' performance on social development is *poverty alleviation*. Hertel & Winters (2005) consider that rich countries influence poor countries, throughout international trade. For this reason, in their view, this is the most direct economic mean to exercise this influence. In their work, Hertel and Winters analyze the effects of trade (the Doha Development Agenda - DDA) on poverty. Their findings refer to mixed results on a near-term. However, there are

[1] Provided by the World Bank

[2] The later two provided by United Nations Human Development Programme

countries which experience small poverty increases, while others important declines. Their conclusion is that the provisions of the DDA reduce poverty on the long-term and that in order to increase the positive effects of trade, complementary domestic reforms are mandatory. Shepherd (2013) refers to an article written by Nina Pavcnik, in order to demonstrate a correlation between productivity growth in developing countries and trade liberalization. Productivity growth is a source of economic growth and technological upgrading. In conclusion, international trade is a factor that can contribute to the reduction of poverty. In their report, Hertel & Winters (2005) enumerate some key determinant components of poverty:

- the incomplete transmission of world prices to rural households,
- workers' mobility barriers,
- national tax instruments' incidence meant to compensate the loss of tariff revenue.

The methods to reduce poverty would be the encouragement of households to benefit from the advantages of DDA market opportunities and the stimulation of economic growth. Trade reforms should address not only merchandise tariffs, but also the barriers of services trade and investment. Empirical evidence from different authors (Hertel & Winters, 2005; OECD, 2012) suggest that poverty can reduce itself throughout trade liberalization, only accompanied by appropriate complementary policies. OECD reports (OECD, 2012) state that trade affects differently the economic activity of the country. If particular households are net buyers or net sellers of goods in liberalized sectors determines the effect of trade liberalization on poverty.

Secondly, another impact of transportation and logistics' performance on a social development goal - an important human development outcome is the distribution of vaccines. Based on preliminary economic evidence, Pasadilla & Shepherd (2012) suggest that better logistic performance determines higher vaccination rates. The authors included in their analysis also the impact of national income levels, the proportion of income spent on health by local governments and the government's effectiveness on vaccination rates. The most important factor which determines the rates of vaccination remains the performance of transportation and logistics, as vaccines are highly sensitive products, retained in strict conditions in order to be effective. Therefore, in a country with good logistics and transportation, vaccination rates are higher, because vaccination programs can be carried out easily in interconnected population centres. However, the interconnection between the performance of transportation and logistics sector and the vaccination rates is stronger in poorer countries than in richer ones (Pasadilla & Shepherd, 2012).

Thirdly, the performance of transportation and logistics influences other socially important goods, the speed and cost, of which goods can be moved within a country. Transportation and logistics can reduce the distance between markets, contributing to the increase of consumer price, which can be returned to the producer. In this manner, the incomes of some of the poorest members of society increase, and food becomes affordable to them, alleviating hunger (OECD, 2012). Porto et al. (2011) show that, in African countries, the improvement of infrastructure increases the income of smallholders. They underline the idea that transportation and logistics facilitate the access of farmers to new local, regional or international markets.

Fourthly, the performance of transportation and logistics is a source of employment, also contributing to human development goals. The different production technologies explain the fact that logistics and transportation operations tend to be

labour intensive especially in developing countries. Increasing the employed population is mandatory in developing countries, where unemployment rates are high, and a lot of activities are from the underground economy. Shepherd (2011) mentions transportation and logistics as a mean to transform the country's economy from low-income to middle-income. The explanation is that developed, specialized logistics and transportation companies lead to multiple outsourcing opportunities at lower costs, in cases in which the activities were previously conducted in-house, with higher costs. In conclusion, besides vaccine distribution, the access to employment is also critical, from both economical and social perspective. For the poorest developing countries, this sector can contribute to the phenomena of job creation, employing a significant number of people.

The job creation process defines another important human development outcome, related to the performance of the transportation and logistics sector, namely women economic empowerment throughout trade. This fifth connection refers to a significant progress, in which women producers take part in Fair Trade markets. In their report, Jones, Smith, & Wills (2011) found that in the countries included in their research, trade strengthened the livelihood of women's households. It also enabled their contribution to their families' financial needs, fact which improved their overall status in their personal and their social life. These women organized themselves in production groups and trade, which enabled their access to productive resources and markets. Although still facing enormous gender constraints and also socio-cultural, economic, political and institutional barriers their activity is changing legislative frameworks and enabling human development.

A final linkage between the transportation and logistics sector and development refers to the area of governance and anti-corruption. Unfortunately, this sector is subject to corruption (police, customs agents, other officials), as it has numerous constraints and procedures which need to be respected according to legal provisions. Unofficial payments are a way to avoid binding constraints and a sign of poor supply chain governance. "Speed money" is a method used to expedite business (Shepherd, 2009), common in some developing countries (Olken & Barron, 2009), fact confirmed also by the OECD/WTO data.

The performance of transportation and logistics has an influence also on the government's capacity to provide human development goods to the population in all needed areas, at the best possible cost. World Bank and OECD/WTO data points out the determinants of the transportation and logistics' value chain performance:

- Infrastructure – is improving around the world. However, it is a constraint in many developing countries.
- Customs and Other Border Procedures – the improvements in this domain are noticeable. However, other border agencies still need to improve their supply chain performance, as this improvement influences the value chains from developing countries.
- Private Services and Regulation – is a sector in which improvements are noticeable as well. However, the improvement of regulatory measures with impact on the private sector's performance is not as constant.
- Red Tape – this sector remains a serious issue, according to the World Bank's Doing Business project, an issue that affects a considerable number of exporters and importers. The documentary formalities still need serious improvements, as reductions

have been few. In order to counterfeit these issues, countries are doing efforts to rationalize their red tape burden, in order to reduce the delays and improve their supply chain performance.

- Governance – in many developing countries, similar to infrastructure, governance is a constraint. The improvement of governance is undermined by unofficial "speed money" payments, done by operators to avoid red tape. As a consequence of the uncertainty associated to poor supply chain governance, these operators face higher indirect costs (Shepherd, 2013).

In order to contribute to the economic and social development of the countries, efforts are being made all around the world to improve the value chains associated to the transportation and logistics sector. Domestic and foreign investment, but also development assistance, could be appropriate sources to finance the development of the transportation and logistics value chain, according to a OECD/WTO survey.

According to the Aid for Trade, key factors that influence the performance of the transportation and logistics sector remain for the future:

- The hard infrastructure – developing countries need to focus their investment efforts into basic infrastructure and the future maintenance of that infrastructure.
- The soft infrastructure – the two infrastructures complete each other. Therefore, transportation regulation, customs and border procedures, and private sector development need to be further improved.
- Coordination and collaboration – the performance of the transportation and logistics sector depends largely on the development of the private sector, but it requires coordinated efforts from different sources.

Although, at EU level we do not have low-income countries, similar to those in Africa, included in some of the arguments, we can still find differences in terms of social development and logistics and transportations' performance, also at the level of the EU, fact which symbolises that EU's socio-economic cohesion must be further developed. The connections between the transportation and logistics sector's performance and socio-economical development are multiple, both direct and indirect.

2. Data and methodology

The transportation and logistics' sector performance is a determinant factor of social development, and we will analyze the impact of this sector on social development at the level of the EU (which we will divide in former communist countries member of the EU and the rest of 18 member countries).

The World Bank defines social development, as the need towards prioritizing the importance of the human being, within the development process. In their definition, poverty is more than low income associated, as they underline the exposure to violence, vulnerability, unaccountable institutions, exclusion and isolation, powerlessness, features also connected with poverty. Therefore, the World Bank promotes sustainable social development, characterized by cohesion, inclusion, accountability, resilience and citizen security. The projects dedicated to promoting social development lead to a better quality of life and to better growth. The concept of social development incorporates the activities meant to improve the complex relationships between communities, societies and states, including the poor (World Bank, 2015).

At the level of the EU, disparities still exist, especially after all the years of crisis. This fact if confirmed by the 2014 Employment and Social Developments in Europe Review, which finds that an important task following the crisis, is to restore the socio-economic convergence, particularly in the Southern and peripheral 15 EU member states, by deepening the economic and monetary union, and also by strengthening the social dimension. In the EU, Member States are promoting a social investment model, relying on people potential to support their lives and labour market participation. Reforms in the EU, like bringing women and older people into work have helped, and stress the further need to continue labour market reforms, and social protection modernization (EC, 2014). As we mentioned before, a manner in which disparities can be diminished involves international trade - a labour intensive economic activity in which transportation and logistics represent the backbone.

In order to prove the relationship between social development and the performance of the transportation and logistics' performance, we will present the three indicators we are going to use in our analysis:

- the LPI – the logistics performance index – as an indicator of the transportation and logistics performance,

- and the HDI and IHDI - as indicators of social development.

The trade and transportation infrastructure, the perceptions on a country's logistics efficiency in terms of customs operations, logistics services, shipments, merchandise traceability and on time delivery are the defining components of the LPI, according to World Bank. The highest performance of the indicator is symbolized by the value 5, and its values range from 1 to 5 points.

In LPI surveys, the LPI is calculated by the World Bank, in partnership with institutions from the academic and international field, private companies, and individuals acting in logistics. In the 2009 version of the survey approximately 1000 international transportation actors from 5000 countries were assessed. Eight markets were assessed with the help of a six dimensions scale (from 1 to 5). There were different selection criteria for a market in accordance with the degree of trade freedom from a country: the importance, on import and export in a respondent's country and random selection, for a free country and the neighbouring countries connecting them internationally, for a landlocked country. The World Bank (World Bank, 2014) enumerates the six crucial dimensions of the survey referring to the clearance process, the trade and transportation-related infrastructure, priced shipments, logistics services, tracking of consignments, shipments reaching the consignee at expected delivery time.

A single score, which uses all the components, is obtained in the end by averaging and aggregating the scores obtained from the six areas.

Besides the economic growth, the HDI (Human Development Index) includes characteristics of people and their capabilities, reflecting also the outcomes of national policy choices, as countries with similar levels of economic development (GNI per capita) do not have also same levels of human development[3]. The people dimension of the HDI is a measure for the average levels of some fundamental human development issues: standard of living, education, and life expectancy. The

[3] The GNI (gross national income) is one of the three pillars of the HDI and not a social development indicator itself. Data from Human Development Report show a strong correlation between the HDI and (log) GNI (r=0.94), a coefficient of determination of 0.88, fact which indicates that 88% of the observed HDI variation is determined by (log) GNI. Therefore, income is an important determinant of development (economic and social).

latter three components are calculated as a geometric mean of their normalized indices. Life expectancy at birth ranges from a minimum of 20 years to a maximum of 85 years and is considered to be a sign of the health dimension. Education is measured, for 25 years aged adults, in average years of schooling, and the children's expected years of schooling when entering school (UNESCO Institute for Statistics provides theses means based on the educational data available from censuses and surveys). 18 years are the mean expected years of schooling. The two indicators mentioned before are normalized using 0 (minimum value) and 15-18 (maximum aspirational value). Later on, using the arithmetic mean, the two indices are used to create a third index, the educational index. The GNI measures the standard of living ranging from minimum values of 100$ (PPP) to maximum values of 75.000$ (PPP). The (log) GNI reflects the diminishing importance of income in increasing GNI. By using the geometric mean the three dimensions is aggregated into a composite index. However, the HDI does not depict the inequalities, the poverty, human security and empowerment, reason for which they created the IHDI. As opposed to the HDI, the Inequality-adjusted Human Development Index (IHDI) reflects the distribution of the average achievements of the country's health, education and income, among its population. The average value of each of the three components is afterwards discounted, in accordance with its level of inequality. This index is the distribution-sensitive average value of human development. However, due to its composition, the IHDI can be equal to HDI (in situations of equality) and has a lower level if the inequality increases. The main difference between the two indexes is the cost of inequality, the manner in which inequality affects human development. Reflecting inequality directly, one of the major advantages of this index, is its capacity to inform policies how to reduce inequality and the influence of those policies on the human development cost. This index is calculated in 145 countries, and the values range from 5.5% (Finland) to 44% (Angola), having an average value of 22.9%.

Our analysis means to find a correlation between the logistics and transportation performance, as signs of human development and the IHDI, in former communist countries as opposed to the rest of the EU countries. We want to prove that countries with higher levels of LPI have lower levels of IHDI.

3. The correlations between logistics performance and social development within European Union

In this part, we analyze the relationship between the logistics performance and social development based on an econometric analysis. The sources of data are the World Bank for the LPI and United Nations Development Programme for the HDI and IHDI. The database includes most recent available data: LPI calculated for the year 2014 and the HDI and IHDI calculated for the year 2013. In the analysis, we included the EU28 countries.

Firstly, we present the results of econometric analysis, based on a linear regression model between logistics performance and Human Development Index across the European Union countries, in the following table:

According to the results of the econometric analysis, we found a strong relationship between the LPI and HDI across the EU countries. The LPI significantly influences the social development of the EU countries, as the value of the correlation coefficient is quite high. In addition, *R Square* and *Adjusted R Square* values are, as well, high.

Table 1. The relationship between LPI and HDI within EU28

Dependent variable: *HDI*				
Least Squares Method				
Sample: 1 28				
Observations: 28				
Equation: $HDI = \alpha_0 + \alpha_1 * LPI$				
	Coefficients	*Standard Error*	*t-Stat*	*P-value*
α_0	0,5387551	0,0458803	11,742625	6,76715E-12
α_1	0,0893273	0,0128327	6,9608676	2,16625E-07
Correlation Coefficient	0,806715	*F-stat*		48,45367
R Square	0,650789	*Significance F*		2,17E-07
Adjusted R Square	0,637358			

(Source of primary data: World Bank & United Nations Development Programme, 2014)

The econometric model is valid, as the Student and Fisher statistical test values show. Even if the *P-values* and the *Significance F* are very small, the model is statistically correct as the *t-Stat* and *F-Stat* values are sufficiently high.

Thereby, the parameters of the econometric model evidence a strong relationship between logistics performance and social development within European Union, quantified by HDI. For sure, the inverse relationship is also valid, since logistics performance is more developed in the countries with higher social development standards.

The line fit plot of the relationship between LPI and HDI within EU28 is presented in Figure 1:

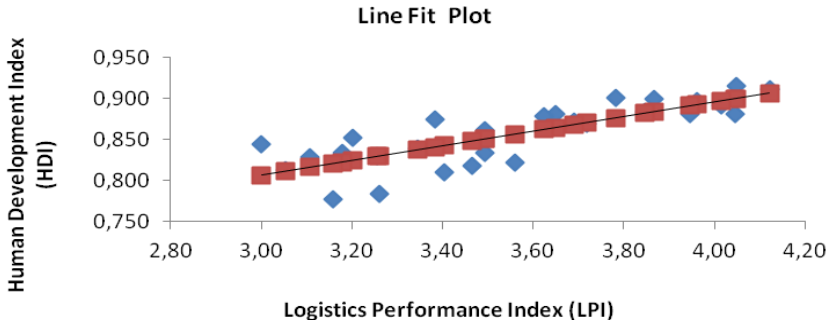

Figure 1 – The correlation between LPI and HDI within EU28
(Source of data: World Bank & United Nations Development Programme, 2014)

The Figure 1 shows that the econometric analysis, built on EU28 data, evidences a significant correlation between the level of logistics performance index and social development, quantified by HDI.

Secondly, we present the results of the econometric analysis based on a linear regression model, between logistics performance and Inequality-adjusted Human Development Index across the European Union countries in the following table:

Table 2. The relationship between LPI and IHDI within EU28

Dependent variable: *IHDI*				
Least Squares Method				
Sample: 1 28				
Observations: 28				
Equation: $IHDI = \beta_0 + \beta_1 * LPI$				
	Coefficients	*Standard Error*	*t-Stat*	*P-value*
β_0	0,4191712	0,06143723	6,822756	3,05287E-07
β_1	0,1022289	0,01718409	5,949047	2,80794E-06
Correlation Coefficient	0,759266	*F-stat*		35,391164
R Square	0,576486	*Significance F*		2,81E-06
Adjusted R Square	0,560197			

(Source of primary data: World Bank & United Nations Development Programme, 2014)

The results of our econometric analysis show a slightly weaker relationship between LPI and IHDI than in the case of HDI, fact which allows us conclude that the influences of the LPI on the social development quantified by the IHDI, is not so strong (as implied by the value of the correlation coefficient, which is a bit smaller). Also, the *R Square* and *Adjusted R Square* values are smaller than in the case of HDI.

Nevertheless, the econometric model is valid, as implied by the values of the Student and Fisher statistical tests. The *t-Stat* and *F-Stat* values are sufficiently high to state that the model is statistically correct, although the *P-values* and the *Significance F* are very small.

The difference between parameters of econometric models in the case of HDI, respectively, IHDI is given by the extent in which the social development is affected by inequality in the European Union countries.

We include the line fit plot of the relationship between LPI and IHDI within EU28 in the Figure 2 as follows:

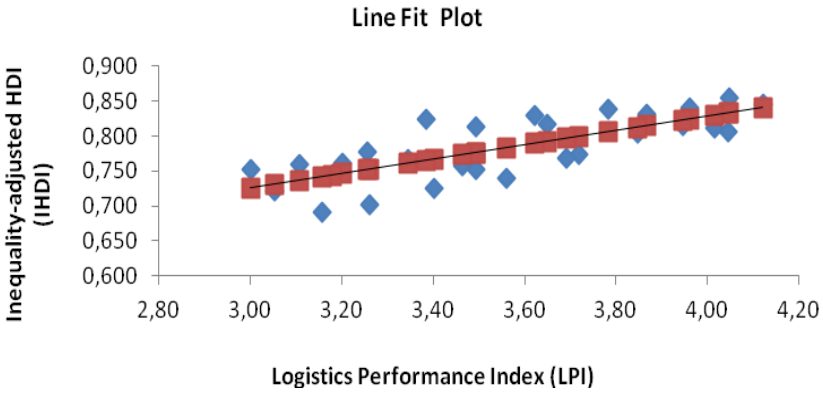

Figure 2 – The correlation between LPI and IHDI within EU28
(Source of data: World Bank & United Nations Development Programme, 2014)

The econometric analysis built on EU28 data evidences a significant correlation between the level of logistics performance index and social development, quantified, in this case, by IHDI, as pictured in Figure 2.

Based on these findings we continue the analysis throughout a comparative study between the levels of logistics performance and social development within the EU28.

4. A comparative study between the logistics performance and social development within the European Union

In this part of our paper, we present the results of the analysis, which focuses on the influence of logistics performance on social development, as a comparative study between the levels of Logistics Performance Index and Inequality-adjusted Human Development Index, from the EU former communist countries, and the other 18 EU countries.

We made a grouping of the EU28 member states, according to the values of LPI, respectively, of IHDI as presented in the Figure 3:

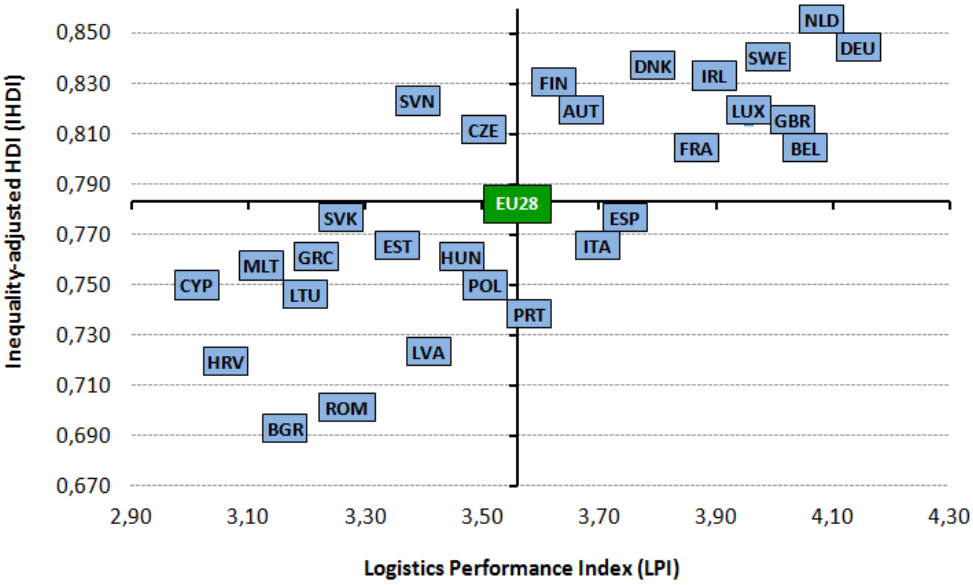

Figure 3 – Grouping the EU28 countries based on values of LPI and IHDI
(Source of data: World Bank & United Nations Development Programme, 2014)

We can see in Figure 3 that the European countries position themselves into four groups based on the values of LPI and IHDI. Two of these groups are more consistent – one in the upper right quadrant and one in the lower left quadrant, with two other two groups of the rest of the countries, positioned intermediate, between the main groups.

The upper right quadrant consists of very developed EU countries. This is the first main group of countries, characterized by very high levels of social development and a very good logistics index, with both the values of LPI and the IHDI above the EU28 averages. Within this group, we can highlight the superior position of Germany and the Netherlands, followed by Belgium, the United Kingdom, and Sweden. Within this group the levels of the fundamental human development values - education, life expectancy, and standard of living are very high.

The second main group of countries, located in the lower left quadrant consists of less developed EU countries. This group characterizes itself by low levels of social development and a poor logistics index. The values of LPI and IHDI are both below the EU28 averages. The better positions of Slovakia, Estonia, Hungary, and Poland can be emphasized, within the second group. The last in this group, and practically the last of entire EU28, are the newest members, Bulgaria, Romania and Croatia. It is easy to see that most of the former communist countries from the EU situate themselves in this second group. The last in this group, and practically the last of entire EU28, are the newest members, Bulgaria, Romania and Croatia. It is easy to see that most of the former communist countries from the EU situate themselves in this second group. However, along with these countries, we have to mention the poor positioning of Greece, Cyprus, and Malta in the same group. Within this group, the levels of the fundamental human development values - education, life expectancy, and standard of living - are low and correlated with poor logistics performance.

However, we should emphasize the special positions of the countries situated between those two main groups. Firstly, we can observe the particular positions of Slovenia and Czech Republic. Both are former communist countries, situated significantly above EU28 average in the terms of social development, even if their logistic performance index is below the average EU28. Their social development index rivals the indexes of many highly developed countries from the first group.

Secondly, Spain, Italy, and Portugal have another particular positioning. They are below the EU28 average in the terms of social development, while their logistic performance index is above the EU28 average. Although, in recent decades, these countries, significantly expanded logistics infrastructure, particularly with the help of European funding, they failed to perform also in terms of social development. This fact is noticeable when analyzing the social issues encountered within these countries in the last years.

5. Conclusions

The results of our analysis show a strong relationship between the LPI and the HDI, fact which underlies that in the EU, the LPI strongly influences the social development. Logistics performance is higher in the countries with improved social development standards, proving the inverse relationship also valid. The econometric analysis shows a slightly weaker relationship between the LPI and the IHDI than in the case of HDI, fact which implies that the influence of the LPI on social development, quantified by IHDI is not so strong. The explanation lies in the extent in which the social development is affected by inequality in the European Union countries.

The comparative analysis on EU28 data evidences a significant correlation between the level of logistics performance index and social development, quantified, in this case, by IHDI. Although situated into four groups based on the values of LPI and IHDI, two of these groups are more consistent, namely the one in the upper right quadrant and the one in the lower left quadrant. There are a few countries which find themselves in intermediate positions, between the two quadrants.

Located in the upper right quadrant, the first main group of countries consists of very developed EU countries. Very high levels of social development and a very good logistics index characterize this group. Both the values of LPI and IHDI are above the EU28 averages. In this group, Germany and the Netherlands, followed by Belgium, the United Kingdom, and Sweden have superior positions. In these countries the levels of fundamental human development values - education, life expectancy, and standard of living are very high.

Located in the lower left quadrant, the second group comprises the less developed EU countries. Low levels of social development and a poor logistics index characterize this group, in which the LPI and the IHDI record values below the EU28 averages. In this second group, Slovakia, Estonia, Hungary, and Poland have superior positions. The newest members of the EU, Bulgaria, Romania and Croatia are the last in this group and practically the last of the entire EU28. We emphasize the fact that most of the former communist countries from the EU situate themselves in this second group, still recording similar development patterns. In this group, we found a surprising positioning of Greece, Cyprus, and Malta. Low levels of the fundamental human development values - education, life expectancy, and standard of living - are low correlated with poor logistics performance characterize this second group.

Special positions outside the two main groups are recorded by former communist countries Slovenia and Czech Republic, situated significantly above EU28 average in the terms of social development, but with a logistic performance index below the EU 28 average. Their social development index rivals the indexes of many highly developed countries from the first group.

We found another particular positioning for Spain, Italy, and Portugal, countries below the EU28 average in the terms of social development, with a logistic performance index above the EU28 average.

Finally, we can say that transportation and logistics sector's performance is highly correlated with the social development of the country. The comparative analysis conducted in the EU28 countries on very recent data is relevant in this regard. Unfortunately, after all these years, we can still see the important distances between the former communist countries and the developed countries. It is noteworthy that in terms of social development, some of the former communist countries (Slovenia and the Czech Republic), reached and exceeded the levels of social development, as opposed to more developed countries. On the other hand, countries as Spain, Italy, and Portugal situate themselves above the EU28 average in the terms of social development, fact that raises some questions about social security in these countries.

However, countries with a low index of social development, usually, have a low logistics performance, as evidenced by the positions of most of the former communist countries. The newest members of the European Union, namely Bulgaria, Romania, and Croatia have the poorest positions in the entire EU28. In these

circumstances, it appears that significant further efforts are needed to improve the logistics performance of developing countries and through it also improve their general level of social development. Only by reducing disparities within the European Union, global economic and social performance can be achievable.

A possible level which could help reduce the disparities is trade. With the help of trade, the gap between emerging and developed countries, from a socio-economical perspective, will narrow. The transportation and logistics sector, which represent the backbone of global trade, will have to adjust and prepare for new market structures. In a future research we intend to extend our study and include more countries in the analysis, which will enable us to make a wider comparison, in terms of the performance of the transportation and logistics sector and its impact on social development.

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