EVALUATION OF THE IMPACT OF THE EU STRUCTURAL SUPPORT ON THE COMPETITIVENESS OF LITHUANIAN ECONOMICS

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Received 16 October 2015; accepted 18 February 2016

Abstract. Increasing amounts of the EU structural support in Lithuania require theoretical and practical research to disclose the determinants that have a significant impact on the competitiveness of Lithuanian economics. The purpose of this article is to evaluate the impact of the EU structural support on the competitiveness of Lithuanian economics. The methods of the research include systematic and comparative analysis of the scientific literature, expert evaluation and linear regression. The research disclosed the main determinants of country's competitiveness. The results have revealed that EU structural support has the most significant impact on Lithuanian engineering and technological infrastructure. The impact of the support on country's macroeconomic, scientific and social environment can also be considered as significant. The EU structural support has medium strong impact on education and business environment conditions in Lithuania. It has been established that, in the field of business advancement, Lithuanian should be rated as medium competitive. Hence, the increase in country's competitiveness by employing EU structural funds should be treated as one of priority aims. In addition, responsible authorities should perform with higher efficiency seeking for higher competitiveness of the country.

Keywords: competitiveness, the determinants of competitiveness, EU structural support, the impact of the EU structural support, Lithuania, Lithuanian economics.

JEL Classification: F21, F43.

1. Introduction

Competitiveness is a complex concept which is interpreted in many different ways without existence of an accurate and universal definition. According to Navickas (2010: 99), "country's competitiveness is the ability of the country to improve its position and maintain advantage in respect of other countries". A competitive country is able to provide favourable conditions for business; locally made products and services are successfully traded in both domestic and foreign markets; high employment rates and life standards are ensured.

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Traditionally, country's competitiveness is described by its economic indicators. However, considering the complexity of global conditions, the analysis of purely quantitative economic indicators is insufficient. Hence, this research is aimed at qualitative and quantitative evaluation of country's competitiveness.

It should be noted that the results of previous studies on the impact of the EU structural support on competitiveness are rather contradictory. Some studies (Puigcerver-Peñalver 2004; Cardenete, Delgado 2013 and others) reveal and empirically substantiate a positive impact of EU structural funds on economics, while the others prove that this impact is weak (Dall'Erba *et al.* 2009; Aiello, Pupo 2012; Zaleviciene 2012), statistically insignificant (Aiello, Pupo 2012) or even negative (Dall'Erba *et al.* 2009; Fiaschi *et al.* 2011). In addition, some authors (Paun 2013; Mohl, Hagen 2010) note that the impact of the EU structural support can be bidirectional. This raises *the scientific problem*: what is the impact on the EU structural support on the competitiveness of Lithuanian economics?

This article is aimed at evaluation of the impact of the EU structural support on the competitiveness of Lithuanian economics. For fulfilment of the defined aim, the following objectives have been raised: 1) to analyse the theoretical determinants of country's competitiveness; 2) to present the methodology of the research; 3) to introduce the results of the empirical research on the impact of the EU structural support of the competitiveness of Lithuanian economics. *The methods* of the research include systematic and comparative analysis of the scientific literature, expert evaluation and linear regression.

2. The determinants of country's competitiveness: theoretical background

Scientific literature covers the variety of the determinants of competitiveness with a recent focus on non-economic ones. Rakauskiene and Tamosiuniene (2013) divided the determinants of country's competitiveness into 11 following groups: institutional, macroeconomic, engineering, technological, scientific, educational, social, product market, labour market, finance market and business progress. This classification can be considered as comprehensive since it covers a variety of the aspects of country's competitiveness.

Improvement of institutional environment influences the development of such determinants as innovation, services, science, education, business, etc. (Radovic *et al.* 2012). On the other hand, Valodkiene and Snieska (2012) note that governmental interference should remain comparatively moderate.

Stable macroeconomic policy contributes to rapid and continual economic growth, which, in turn, facilitates making investment and business decisions. Macroeconomic indicators commonly employed for the assessment of country's competitive advantage

include GDP, inflation rate, FDI, international trade balance (Seputiene, Brazauskiene 2013), long-term interest rate, monetary stability, public debt and budget deficit (Rakauskiene, Tamosiuniene 2013).

Continual innovations contribute to knowledge improvement as well as creation of new products and technologies. What is more, they ensure proper functioning of a funding system (Schwab 2014).

Competitiveness of advanced economies is based on high value which is generated by skilled staff as well as by assurance of flexible life-long learning opportunities. High quality education contributes to an increase in average income and efficiency; it also enables to reduce probability of social problems (Sahlberg 2006).

Social environment, which is described by such factors as healthy labour force, health care quality, social welfare, ecological situation and exploitation of renewable energy, is also attributed to the determinants of country's competitiveness (Rakauskiene, Tamosiuniene 2013). Healthy labour force is vital for country's competitiveness since sick labour force is less productive (Schwab 2014).

Favourable business conditions, assessed by investment climate and economic freedom, have a significant impact on an increase in the standard of living as well as on country's ability to ensure business competitiveness (Titarenko *et al.* 2007; Kharlamova, Vertelieva 2013).

The impact of FDI on competitiveness emerges as adoption of new technologies and innovations, spread of managerial knowledge and skills, creation of new workplaces, and direct increase of capital in international markets (Plchova, Gajduskova 2013).

Systematised determinants of country's competitiveness have been presented in Table 1.

Summarising, country's competitiveness is described by a variety of determinants which can be classified into micro and macro, economic and non-economic, internal and external, etc. Although the analysis of competitiveness is traditionally based on macroeconomic determinants, under the conditions of modern competition, such assessment often appears insufficient. On the contrary, an adequate assessment of country's competitiveness requires a complex attitude, i.e. consideration of all determinant groups.

For implementation of the EU Cohesion policy aims over the period of 2014–2020, in the last few years Lithuania absorbed nearly 23.56 billion litas from the EU structural funds, including 392.67 million litas for European territorial co-operation. Over this period, the biggest share of the contributions were directed towards assurance of territorial cohesion, implementation of macroregional strategies and creation of work places.

Determinant	Author(s), year
Currency exchange rate	Herrero et al. (2014)
Labour productivity	Herrero et al. (2014), Maciulyte-Sniukiene, Paliulis (2011)
Employment	Meiliene, Snieska (2010)
Labour market efficiency	Yao, Cui (2010), Meiliene, Snieska (2010)
Institutional system	Schwab (2014), Radovic et al. (2012), Stevans et al. (2012)
Monetary and fiscal policy	Seputiene, Brazauskiene (2013), Rakauskiene, Tamosiuniene (2013)
FDI	Clipa (2011), Plchova, Gajduskova (2013)
Transport infrastructure	Valodkiene, Snieska (2012), Rakauskiene, Tamosiuniene (2013)
Educational system	Lane, Johnstone (2012), Sahlberg (2006), Stevans et al. (2012)
Social environment	Rakauskiene, Tamosiuniene (2013), Stevans et al. (2012)
Efficient finance system	Schwab (2014), Monnin, Jokipii (2010)
Innovation	Vaicekauskaite (2011), Valodkiene, Snieska (2012)
Technological advancement	Balkyte, Tvaronaviciene (2010)
Quality of goods and services	Latruffe (2010)
Intellectual factors	Balkyte, Tvaronaviciene (2010)
Knowledge infrastructure	Balkyte, Tvaronaviciene (2010), Valodkiene, Snieska (2012)
Business environment	Seputiene, Brazauskiene (2013), Titarenko et al. (2007)
Clusters	Jurgutis, Jucevicius (2009), Parausic et al. (2014)

Table 1. The basic determinants of country's competitiveness (source: compiled by the authors)

3. The methodology of the research

In order to ensure reliability of the research results, both qualitative (expert evaluation) and quantitative (linear regression) analysis was employed. The questionnaire for expert evaluation was composed of 8 questions that were developed to acquire general information about the experts and obtain expert evaluation on the researched problem.

While forming the group of the experts, the basic requirements raised for them included competence and experience in the research field. Representatives of the EU structural support interim and implementation institutions (ministries, support agencies) directly dealing with the issues of the EU support administration and assessment, i.e. heads of departments, project managers and chief specialists, were selected as experts. For the assurance of high competence, the specialists with work experience not shorter than 3 years were involved. For higher accuracy of the results, the experts representing

different industries – business (22 percent of the experts), finance (11 percent of the experts), education (11 percent of the experts), transport infrastructure (22 percent of the experts), environmental protection (11 percent of the experts), information technologies (11 percent of the experts) and business education (12 percent of the experts) were involved.

According to Burinskiene and Rudzikiene (2009), the optimal size of the expert group makes 8–10 experts. Following the above-mentioned theoretical recommendation, the expert group for this research was composed of 10 people.

Kendall's coefficient of concordance was employed to verify compatibility of the experts' opinions. For verification of internal consistency of the expert evaluation, Cronbach alpha coefficient was calculated.

The impact of the EU structural support on macroeconomic, business and labour market determinants was additionally verified by applying simple linear regression analysis. This technique was employed to establish the links between the EU structural support (independent variable) and the determinants of Lithuanian competitiveness (dependent variables) such as GDP, R&D expenditure rate, FDI, the number of operating entities, budget balance, annual inflation, employment rate, CPI and foreign trade balance.

The data was processed with SPSS and MS Excel software.

4. The results of the empirical research on the impact of the EU structural support on the competitiveness of Lithuanian economics

The value of Cronbach alpha coefficient equal to 0.855 reveals the acceptable internal homogeneity of the expert evaluation. The value of Kendall's coefficient of concordance W = 0.505 reflects compatibility of the experts' opinions. Concordance can be considered statistically significant since p = 0 < 0.05. Nevertheless, for confirmation of the evaluation compatibility, it is recommended that the value of Kendall's coefficient should reach 0.6. Thus, the coefficient of concordance was additionally calculated for each of the questions in order to identify the ones with higher or lower degree of expert evaluation compatibility (see Table 2).

Question	Kendall's coefficient	p-value	Annotation
Significance of the determinants of country's competitiveness	0.334	0.000 (<0.05)	Rather compatible
Lithuanian competitiveness in respect of competitiveness of the EU member states	0.237	0.000 (<0.05)	Hardly compatible
The impact of the EU structural support on the competitiveness of Lithuanian economics	0.611	0.000 (<0.05)	Reliably compatible

Table 2. The results of Kendall's test for survey questions (source: compiled by the authors)

The results of Kendall's test show that experts' opinions split while evaluating the significance of various determinants on country's competitiveness (W = 0.334, p = 0.000 < 0.05), and were hardly compatible while evaluating Lithuanian competitiveness in respect of the competitiveness of the EU member states (W = 0.237, p = 0.000 < 0.05). Nevertheless, the evaluations appeared reliably compatible on the basic issue of the research – the impact of the EU structural support on the competitiveness of Lithuanian economics (W = 0.611, p = 0.000 < 0.05), which proposes that the results of the research are statistically significant.

In order to identify the main determinants of the country's competitiveness, the experts were asked to evaluate the significance of the determinants in the five-point Likert scale. Interpreting the results, the determinants with the average lower than 2.5 were considered insignificant, with the average from 2.5 to 3.5 – medium significant, with the average from 3.5 to 4.5 – significant, and with the average higher than 4.5 – extremely significant. The determinants of country's competitiveness, ranked by their significance, have been presented in Table 3.

Rank	Determinant	Average (M)	Standard deviation (S)	Mode (Mo)	Significance
1.	Scientific infrastructure	4.78	0.67	5.00	Extremely significant
2.	Technological infrastructure	4.56	0.73	5.00	Extremely significant
3.	Business environment	4.56	0.53	4.00	Extremely significant
4.	Institutional environment	4.22	0.44	4.00	Significant
5.	Engineering infrastructure	4.22	0.67	4.00	Significant
6.	Labour market	4.11	0.78	4.00	Significant
7.	Business progress	4.00	0.00	4.00	Significant
8.	Macroeconomic situation	4.00	0.50	4.00	Significant
9.	Finance market	3.89	0.33	4.00	Significant
10.	Education	3.67	0.73	3.00	Significant
11.	Social environment	3.44	0.72	3.00	Medium significant

Table 3. Ranks of the determinants of country's competitiveness by their significance (source: compiled by the authors)

Table 3 reveals that the experts consider all the determinants of country's competitiveness more or less significant – neither of the introduced determinants was evaluated as insignificant. Scientific infrastructure was acknowledged as the most significant determinant, while social environment – as the least significant one. Considering a small sample of the research, it should be noted that extremely high or low values may distort the overall results. Thus, for more accurate results of the research, mode, which reveals the most recurrent value in the data set, was calculated. By this characteristic, the least significant determinants of country's competitiveness are social environment and education, recurrently given the evaluation of 3 points. The most significant determinants in this respect include scientific and technological infrastructure with the recurrent evaluation of 5 points. Institutional environment, macroeconomic situation, engineering infrastructure, business environment, labour and finance markets as well as business progress were recurrently given the evaluation of 4 points, which allows to consider them as significant for Lithuanian competitiveness.

The research also included evaluation of Lithuanian competitiveness in comparison to other EU member states. The results of the research on Lithuanian competitiveness by particular determinants have been presented in Table 4.

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Determinant	Average (M)	Standard deviation (S)	Mode (Mo)	Result	
Scientific infrastructure	3.56	0.73	3.00	Competitive	
Technological infrastructure	4.56	0.53	5.00	Extremely competitive	
Business environment	3.22	0.83	3.00	Medium competitive	
Institutional environment	3.33	0.87	3.00	Medium competitive	
Engineering infrastructure	3.78	0.83	4.00	Competitive	
Labour market	2.89	1.05	3.00	Medium competitive	
Business progress	3.22	0.83	3.00	Medium competitive	
Macroeconomic situation	3.11	0.78	3.00	Medium competitive	
Finance market	3.33	1.22	4.00	Medium competitive	
Education	3.56	0.73	3.00	Competitive	
Social environment	3.00	0.87	3.00	Medium competitive	

Table 4. Evaluation of the competitiveness of Lithuania in comparison to other EU member states (source: compiled by the authors)

The data presented in Table 4 reveals that technological infrastructure is the main determinant of the competitiveness of Lithuanian economics (in the field of technological infrastructure, the country was evaluated as extremely competitive). The other significant determinants (by which the country is considered to be competitive) with high average evaluations include engineering infrastructure, scientific infrastructure and education. By the rest of the determinants, Lithuania is considered to be medium competitive with the average evaluations of 2.89–3.33 points and recurrently given evaluation of 3 points. Lithuanian labour market and its social environment with the lowest

expert evaluations are considered to be the determinants the least contributing to the competitiveness of the country.

The experts also provided their evaluations on the impact of the EU structural support on particular determinants of the competitiveness of Lithuanian economics. Interpreting the results of the research, the impact of the EU structural support with the average lower than 2.5 points was considered insignificant, the impact with the average from 2.5 to 3.5 points – medium significant, the impact with the average from 3.5 to 4.5 points – significant, and the impact with the average higher than 4.5 points – extremely significant (see Table 5).

Determinant	Average (M)	Standard deviation (S)	Mode (Mo)	Impact
Scientific infrastructure	4.33	0.71	4.00	Significant
Technological infrastructure	4.67	0.71	5.00	Extremely significant
Business environment	3.22	0.97	2.00	Medium significant
Institutional environment	2.44	0.73	3.00	Insignificant
Engineering infrastructure	4.78	0.44	5.00	Extremely significant
Labour market	2.44	0.73	2.00	Insignificant
Business progress	3.89	0.33	4.00	Significant
Macroeconomic situation	3.67	0.87	4.00	Significant
Finance market	2.22	0.97	2.00	Insignificant
Education	3.44	0.73	3.00	Medium significant
Social environment	3.67	0.71	3.00	Significant

Table 5. The impact of the EU structural support on the determinants of the competitiveness of Lithuanian economics (source: compiled by the authors)

The results of the research have revealed that the EU structural support has the most significant impact on engineering and technological infrastructure of the country. What is more, its significant impact on country's macroeconomic situation, scientific infrastructure, social environment and business progress has been revealed. The experts noted that the EU structural support has medium significant impact on Lithuanian education and business environment. However, its impact on institutional environment, labour market and finance market is treated as insufficiently significant.

The experts were also asked to point out the determinants of the competitiveness of the country that, in the experts' opinion, are significantly influenced by the EU structural support, although these determinants were not included in the questionnaire. Additional determinants were pointed out by the only expert who acknowledged significance of Lithuanian business, directly and indirectly related to the impact of the EU structural support, and indicated participation in joint projects as one the determinants of the competitiveness of Lithuanian economics.

The experts were also asked to generalise their evaluations concerning the impact of the EU structural support on the competitiveness of Lithuanian economics (positive impact, more positive than negative impact, more negative than positive impact, negative impact or there is no impact). On this issue, unanimous expert evaluations have been obtained -100 percent of the experts evaluated the impact of the EU structural support as positive (systematised results of the expert evaluation have been presented in Table 6).

Summarising the results of the research on the impact of the EU structural support on the competitiveness of Lithuanian economics, it can be stated that the main determinants of the competitiveness of Lithuanian economics are scientific and technologi-

on the identified determinants (source: compiled by the authors)				
Rank	Determinant	Significance	Competitiveness of Lithuanian economics by the determinant	The impact of the EU structural support
1.	Scientific infrastructure	Extremely significant	Competitive (3.56)	Significant
2.	Technological infrastructure	Extremely significant	Extremely competitive (4.56)	Extremely significant
3.	Business environment	Extremely significant	Medium competitive (3.22)	Medium significant
4.	Institutional environment	Significant	Medium competitive (3.33)	Insignificant
5.	Engineering infrastructure	Significant	Competitive (3.78)	Extremely significant
6.	Labour market	Significant	Medium competitive (2.89)	Insignificant
7.	Business progress	Significant	Medium competitive (3.22)	Significant
8.	Macroeconomic situation	Significant	Medium competitive (3.11)	Significant
9.	Finance market	Significant	Medium competitive (3.33)	Insignificant
10.	Education	Significant	Competitive (3.56)	Medium significant
11.	Social environment	Medium significant	Medium competitive (3.00)	Significant

Table 6. Significance of particular determinants on the competitiveness of Lithuanian economics and the impact of the EU structural support on the identified determinants (source: compiled by the authors)

cal infrastructure. Following the expert evaluations, Lithuania is considered to be an extremely competitive country by its technological infrastructure (access to and usage of IT, telecommunications and other newest technologies). The research has also revealed that the EU structural support has an extremely significant impact on Lithuanian technological infrastructure, which proposes that namely EU funding has determined high level of the competitiveness of Lithuanian technological infrastructure. Although slightly less competitive in comparison to the technological infrastructure, Lithuanian scientific infrastructure (creation of innovations, quality of scientific institutions, cooperation between science and business, human scientific resources) can be considered to have achieved a rather high level of competitiveness; the EU structural support has also had a significant impact on its development, which has been confirmed by the statistical data analysis that reveals the positive causality between R&D expenditure rate and the volumes of the EU structural support distributed for project funding. Efficient absorption of R&D expenditure is a vital condition for maintenance and increase of the competitiveness in the scientific infrastructure of the country. An extremely significant impact of the EU structural support on Lithuanian engineering infrastructure (effectiveness and quality of transport and energetics infrastructure) could have also determined high level of the competitiveness of Lithuanian economics in this area.

In the field of *education* (primary, higher, staff training), Lithuania is considered to be competitive. However, the impact of the EU structural support on education is only medium significant, which proposes the following conclusions: first, competitiveness of Lithuanian education is influenced by other determinants rather than by the structural support; second, medium significant impact may have been determined by inefficient absorption of the support, especially considering the fact that a large share of the EU structural funds (over 3 billion Litas) were distributed for funding of Lithuanian education is acknowledged as a significant determinant of country's competitiveness, the opportunities to increase the efficiency of Lithuanian educational projects should be reviewed.

The expert evaluation has confirmed that the impact of the EU structural support is significant in the field of *business progress* (business culture, cluster development, foreign investment). This result could have also been determined by the positive interrelation between the structural support and FDI as well as by the links between the structural support and the number of operating entities. In the field of business progress, Lithuania is evaluated as medium competitive. Hence, an increase in country's competitiveness achieved by employing the EU structural support can be referred to as one of the priority directions.

The research has revealed a significant impact of the EU structural support on country's macroeconomic situation, which was also confirmed by the positive links between GDP and the structural support. Lithuanian macroeconomic situation is considered to be medium competitive, which requires a careful review of the opportunities to increase the level of competitiveness by employing the EU structural support. Country's macroeconomic situation reflects the overall state of its economics. For this reason, it is rather difficult to specify the fields where the support could improve country's competitiveness in respect of its macroeconomic situation. What is more, country's macroeconomic situation can be treated not only as the determinant of competitiveness, but also as its result. Hence, an increase in country's competitiveness requires the efficient and smooth operation of all the processes engaged, which means that the projects based on the structural funding, especially the ones designed for economic growth, must be implemented with the highest possible efficiency.

The research has also disclosed that not all the determinants of competitiveness are influenced by the EU structural support. It has been established that the impact of the EU structural support is insignificant in *institutional environment* (efficiency of legal system, transparency and efficiency of governmental activities), *labour* (flexibility of the labour market, labour force quality and quantity, regulatory framework) and *finance markets* (efficiency of banks and stock exchange). The EU structural support may influence not all aspects of institutional environment. However, the results of the research allow to envisage the opportunities of the competitiveness increase in this field by promotion of administrative abilities, public administration and technical support efficiency.

Insignificant impact of the EU structural support on Lithuanian labour market contradicts to the majority of previously conducted studies and evaluations. This contradiction can be explained by a wider attitude towards the labour market, which in this research is described not only by employment rate, but also by labour force quality and regulatory framework. Nevertheless, for more accurate establishment of the opportunities to increase the impact of the EU structural support on Lithuanian labour market, further research including all the aspects of labour market competitiveness is required.

It is important to note that finance markets are not directly provided with the EU structural support. Hence, the analysis of the impact of the structural support on the increase of the competitiveness of this determinant is inexpedient. As well as finance markets, *business environment conditions* (in this research treated as competitive conditions in the market including procedures, tax and legal base) are not attributed to the field of the direct impact of the EU structural support. Hence, improvement of business environment by employing the structural support will not be further discussed.

Social environment (health care system, social welfare, ecologic situation) is the only determinant evaluated as insignificant to country's competitiveness. Lithuanian social environment is considered to be medium competitive, although it is significantly influenced by the EU structural support. Considering the comparatively low significance of this determinant to country's competitiveness, it can be concluded that the impact of the EU structural support on Lithuanian social environment is sufficient.

Calculations of Pearson correlation coefficient, estimated to determine the strength of the links between GDP and the EU structural support, revealed value r equal to 0.703,

and value p = 0.016, which proposes that the links between GDP and the EU structural support are medium strong positive. The coefficient estimated to determine the strength of the links between R&D expenditure and the EU structural support revealed value r equal to 0.798, and value p = 0.003, which proposes that the links between R&D expenditure and the EU structural support are strong positive. The coefficient estimated to determine the strength of the links between the number of operating entities and the EU structural support revealed value r equal to 0.861, and value p = 0.001, which proposes that the links between the number of operating entities and the EU structural support are extremely strong and positive. Finally, the coefficient estimated to determine the strength of the links between FDI and the EU structural support revealed value r equal to 0.844, and value p = 0.001, which proposes that the links between FDI and the EU structural support are strong positive, i.e. increasing inflows of the EU structural support in Lithuania contribute to the growth of FDI.

The impact of the structural support on budget balance, annual inflation, employment rate, CPI and foreign trade balance has not been confirmed due to insufficiently strong correlation between the researched variables, so the detailed analysis has not been conducted. Summarizing the results of the empirical research, it can be stated that, in general sense, the EU structural support promotes the competitiveness of Lithuanian economics.

5. Conclusions

The analysis of the scientific literature has revealed that although the studies on country's competitiveness are traditionally based on the research of macroeconomic determinants, under the conditions of modern competition such evaluation often appears insufficient. An adequate evaluation requires a complex attitude, i.e. consideration of all the groups of determinants without giving any priorities to one or another group.

The results of the empirical research propose that the impact of the EU structural support on different determinants of country's competitiveness is comparatively variant. Nevertheless, the overall impact should be treated as positive. The research has disclosed an extremely significant impact of the EU structural support on Lithuanian technological infrastructure (which alongside with scientific infrastructure can be treated as the main determinant of the competitiveness of Lithuanian economics) and engineering infrastructure; the EU structural support has a significant impact on Lithuanian scientific infrastructure, business progress, macroeconomic situation and social environment, and medium significant impact on country's business environment conditions and education. The impact of the EU structural support on Lithuanian institutional environment, labour market and finance market is insignificant.

The links between GDP and the EU structural support are medium strong positive, between R&D expenditure and the EU structural support – strong positive, between the

number of operating entities and the EU structural support – extremely strong positive, and between FDI and the EU structural support – strong positive. The impact of the EU structural support on budget balance, annual inflation, employment rate, CPI and foreign trade balance has not been confirmed due to insufficiently strong correlation between the researched variables.

Disclosure statement

The authors of this article declare that they do not have any competing financial, professional, or personal interests from other parties.

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