

SOCIAL ENTREPRENEURSHIP DEVELOPMENT FACTORS IN EUROPE

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Abstract. Social entrepreneurship (SE) could be a response to societal needs and challenges faced by population during last two decades. Despite the wide range of supporting programmes launched by the European Commission, various barriers to development of social enterprises exist. The present research is a part of a comprehensive study, which was aimed to determine the impact of various tools on the social entrepreneurship level in the EU. The authors in the current paper focused on legal aspects regarding social entrepreneurship and educational and financial support factors. To achieve the established goal, multifactor regression analysis was performed. SE development level and popularity were selected as dependent variables. Research sample included data of 27 European countries. Data processing was performed in SPSS environment. Research results revealed statistically significant relationship between social entrepreneurship volume and SE-related legal framework existence at the national level, as well as training and coaching schemes targeting social enterprises. SE popularity, in turn, is influenced by SE educational activities, grants and business support for established enterprises, as well as collaboration network and free access to market.

Key words: social entrepreneurship, European Union, regression analysis.

JEL code: available on: L31, 052

Introduction

Social entrepreneurship and the related topics are frequently discussed by academicians, business professionals and authorities (Mair, Marti, 2006; Alvord et al. 2004; Defourny, Nyssens, 2010; Sekliuckiene, Kisielius, 2015; European Commission, 2013).

Considering the critical importance of social entrepreneurship development, European Commission implemented a range of supporting programmes to encourage creation and sustainability of social enterprises.

In the current study, data collected during the comprehensive research "Opportunities for municipalities' social entrepreneurship and usage of private social entrepreneurship for municipalities' goals" (in Latvian: Pasvaldības socialas uzņēmējdarbības iespējas un privātas socialas uzņēmējdarbības izmantošanas iespējas pasvaldības merkiem) was used. The goal was to determine the impact of various tools on the social entrepreneurship level in the EU.

In the previous large-scale research, four groups of factors were analysed: (1) legal factors, (2) efficiency of educational support, (3) efficiency of financial support, and (4) participants of an eco-system. Besides, country-specific economic and social measures were analysed: GINI index, GDP per capita, lifelong learning activity measures, number of students

and others. In the current paper the authors focused only on first three groups of factors.

The goal of the given study was to get an insight into social entrepreneurship environment in the European countries, as well as to analyse the impact of various factors on variables selected as proxies for SE development.

The research tasks were determined, as follows:

- 1) To determine the level of the volume of social entrepreneurship and SE popularity (SE development proxies) in the analysed countries;
- 2) To investigate of the impact of legal factors on SE development;
- 3) To investigate the impact of educational support on SE development;
- 4) To investigate the impact of financial support on SE development.

To achieve the established goal and complete the tasks, a multifactor regression analysis was performed. Volume of social entrepreneurship in a country (expressed as a relative index of social enterprises) and social entrepreneurship popularity were selected as dependent variables. Research sample included data of 27 European countries. Data processing was performed in SPSS environment.

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The paper contributes to the field of social entrepreneurship, by providing analysis of SE-related activities in the European Union countries.

Social entrepreneurship in Europe

During last two decades, global society has faced with new societal challenges, which require new responses and solutions. This, in turn, fostered rapid development of social innovation. Social innovation is used to describe *social entrepreneurship*, social enterprises and the work of social or civic entrepreneurs (Dees, Anderson, 2006).

Social entrepreneurship is a "set of behaviours and attitudes of individuals involved in creating new social ventures, such as a willingness to take risks and finding creative ways of using underused assets" (The Young Foundation, 2012). In turn, social enterprise is defined by the European Commission as "an operator in the social economy whose main objective is to have a social impact rather than make a profit for their owners or shareholders" (European Commission, 2011).

Development of social enterprises is on the agenda both at the national and EU level, since "social economy employs over 11 million people in the EU, accounting for 6 % of total employment" (EC, 2017). Based on the results of the European Project (SELUSI, 2013), the main fields of activity for social enterprises (75 % of the whole sample) are social services (16.7 %), employment and training (14.88 %), environment (14.52 %), education (14.52 %) and economic, social and community development (14.34 %).

However, there are some significant barriers to sustainability of social enterprises, which are: (1) lack of awareness and recognition of the social value, (2) lack of specialised training and education, (3) difficulties accessing the same type of financing options available to conventional enterprises, (4) lack of uniform regulation across countries (European Commission, 2013).

The factors influencing social entrepreneurship development, sustainability of social enterprises and related topics are frequently discussed by researchers (Ferri, Urbano, 2010; Wronka, 2013; Hoogendoorn et al., 2011; Griffiths et al., 2013; Thornton et al., 2011; IrengUn, Arikboga, 2015; Dobeles, Pietere, 2015).

The present paper reflects the attempt of the authors to contribute to the research field with comprehensive data analysis across the Europe.

Research methodology

To achieve the research objectives, data warehouse was created by the participants of the large-scale research. Data was collected, using Eurostat, World Bank statistics and National Statistical bureaus of the analyzed countries.

To determine the impact of various factors on social entrepreneurship development, the authors run a multiple regression analysis. SE development was proxied by the relative index of social enterprises in each analysed country (SE volume) - DepVar1, and SE popularity in a country - DepVar2.

To estimate the dependent variables formula 1 and formula 2 were applied.

$$DepVar1 = \frac{NoSE}{NoEnt} \quad (1)$$

Where:

NoSE – number of social enterprises;

NoEnt – total number of registered enterprises in a country.

$$DepVar2 = \frac{GoogleSearch}{Population \times EngSpeaking \times Internet} \quad (2)$$

Where:

Google search – number of google search times – SE-related key words;

Population – total number of citizens;

EngSpeaking – English speaking citizens' ratio;

Internet – internet users' ratio.

Explanatory factors and their labels are summarized in the Table 1.

Table 1

Explanatory factors

Factors' group	Factors	Label
Legal factors	Official SE definition in state legal documents	JUR1
	SE official legal regulation	JUR2
	Official accreditation for social enterprises	JUR3
Educational support factors	Pre-start/ Start-up support	ATB1
	Awareness raising	ATB2
	SE education	ATB3
	Training and coaching schemes	ATB5
	Networking, knowledge sharing, mutual learning initiatives	ATB10
Financial support factors	Grants / business support for established enterprises	ATB4
	Investment readiness support	ATB6
	Dedicated financial instruments	ATB7
	Physical infrastructure	ATB8
	Collaboration and access to market	ATB9

The analysed relationship between dependent variables and legal factors had the following functional form (formulas 3, 4):

$$DepVar1 = f(JUR1, JUR2, JUR3) \quad (3)$$

$$DepVar2 = f(JUR1, JUR2, JUR3) \quad (4)$$

Where:

JUR1, *JUR2*, *JUR3* – dummy variables (1 – Yes; 0 – No);

JUR1 – the response on the question: does an official SE definition in a country exist?

JUR2 – the response on the question: does a SE-focused legal framework in a country exist?

JUR3 – the response on the question: is it possible for social enterprises to get a special status in a country?

The analysed relationship between dependent variables and educational support factors had the following functional form (formulas 5, 6):

$$DepVar1 = f(ATB1, ATB2, ATB3, ATB5, ATB10) \quad (5)$$

$$DepVar2 = f(ATB1, ATB2, ATB3, ATB5, ATB10) \quad (6)$$

Where:

ATB(n)– dummy variables, publicly funded schemes specifically designed for or targeting social enterprises (1 –exist; 0 – doesn't exist).

The analysed relationship between dependent variables and financial support factors had the following functional form (formulas 7, 8):

$$DepVar1 = f(ATB4, ATB6, ATB7, ATB8, ATB9) \quad (7)$$

$$DepVar2 = f(ATB4, ATB6, ATB7, ATB8, ATB9) \quad (8)$$

Where:

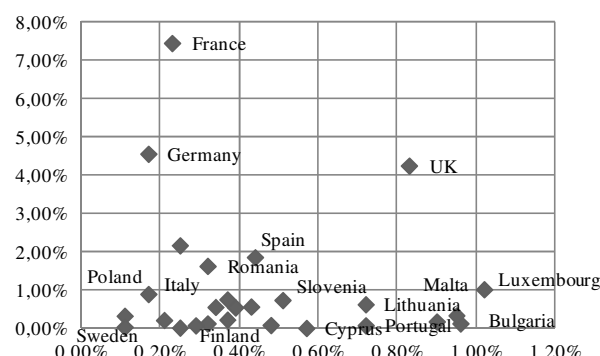
ATB(n)– dummy variables, publicly funded schemes specifically designed for or targeting social enterprises (1 –exist; 0 –doesn't exist).

Multifactor regression analysis was conducted separately for three groups of explanatory variables: legal factors, education support, and financial support. Data analysis was performed in SPSS environment.

Research results and discussion

In the initial stage of the study, dependent variables were estimated. The results are reflected in the Table 2. The countries were ranked according to the volume of social entrepreneurship (see formula 1).

It is interesting to analyse SE environment from two different perspectives simultaneously (Fig. 1). Fig. 1 demonstrates the achievements of EU countries: SE development (DepVar1 – Y axis) and SE popularity (DepVar2 - X axis).



Source: authors' calculations and visualization

Fig. 1. Social entrepreneurship in the EU

The highest level of social entrepreneurship development demonstrated EU-15 countries with France in the first place. In turn, the highest level

of SE popularity is in Luxembourg, Bulgaria, Malta and Ireland. The most balanced relationship between these two ratios demonstrated the UK.

Table 2

SE volume and popularity in the EU

Country	Volume	Popularity
France	7.46 %	0.23 %
Germany	4.57 %	0.17 %
UK	4.26 %	0.83 %
Finland	2,18 %	0.25 %
Spain	1,87 %	0.44 %
Romania	1.64 %	0.32 %
Luxembourg	1.03 %	1.02 %
Italy	0.91 %	0.17 %
Estonia	0.77 %	0.37 %
Slovenia	0.75 %	0.51 %
Portugal	0.64 %	0.72 %
Netherlands	0.58 %	0.43 %
Hungary	0.57 %	0.34 %
Belgium	0.56 %	0.39 %
Ireland	0.35 %	0.95 %
Poland	0.34 %	0.11 %
Austria	0.24 %	0.37 %
Slovakia	0.23 %	0.21 %
Malta	0.19 %	0.90 %
Bulgaria	0.14 %	0.96 %
Denmark	0.14 %	0.32 %
Croatia	0.10 %	0.48 %
Greece	0.09 %	0.29 %
Lithuania	0.09 %	0.72 %
Sweden	0.05 %	0.11 %
Czech Republic	0.03 %	0.25 %
Cyprus	0.02 %	0.57 %

The next stage of the research was devoted to an investigation of the impact of legal factors (JUR1, JUR2 and JUR3) on SE volume and popularity in a country.

Four regression models were constructed.

- 1) DepVar1; Predictors: Const, JUR1, JUR2, JUR3
- 2) DepVar1; Predictors: JUR1, JUR2, JUR3
- 3) DepVar2; Predictors: Const, JUR1, JUR2, JUR3
- 4) DepVar2; Predictors: JUR1, JUR2, JUR3

The results of the regression analysis are presented in the Table 3 and Table 4.

Table 3

Results of the regression analysis I: models' summary

Model	R ²	Adj. R ²	Sig.	DW
1	0.092	-0.020	0.490	1.546
2	0.258	0.165	0.063	1.764
3	0.163	0.054	0.242	2.143
4	0,389	0.313	0.007	2.409

Source: authors' calculations

Table 4

Coefficients' statistics (Sig.)

Predictor	Model 1	Model 2	Model 3	Model 4
Constant	0.053	-	0.152	-
JUR1	0.334	0.031	0.441	1.000
JUR2	0.135	0.140	0.067	0.080
JUR3	0.996	0.596	0.695	1.000

Source: authors' calculations

The only fourth model is statistically significant (F Sig.=0.007 < 0.01). The second model is statistically significant at 90 % (Sig. F=0.063 < 0.1).

Regarding the coefficients for regressors, JUR1 is statistically significant at 0.05 level for Model 2; JUR2 is statistically significant at 0.08 level for Model 4.

Durbin-Watson statistics (DW) for the selected model was also analysed. Critical DW values were determined for p=3 and the number of observations (n=27): DW_L=1.23991; DW_U=1.55620. The results of the analysis are provided in the Table 5. Analysis of DW statistics revealed no autocorrelation in residuals.

Table 5

Analysis of DW statistics

Model	Test for positive autocorrelation	Test for negative autocorrelation
2	DW=1.764 > D _U	4-DW > D _U
4	DW=2.409 > D _U	4-DW > D _U

Source: authors' calculations

To increase the validity of the results, the authors performed additional regression analysis, having doubt on quality of the models with

predictors expressed by only dummy variables. To avoid the possible negative effect, DepVar1 was replaced with the number of social enterprises in a country. In turn, the set of explanatory variables was complemented with the total number of enterprises in a country. It is obvious that these two measures are directly related, but it was the only opportunity to change the models' structure without changing the content.

Two regression models were constructed: model 1 – with, and model 3 – without a constant variable. The results of the analysis are presented in the Table 6 and 7.

Both models are statistically significant at 0.01 level. Besides, R-squared value is sufficiently high, comparing with the previous set of models.

Table 6

**Results of the regression analysis II:
models' summary**

Model	R ²	Adj. R ²	Sig.	DW
1	0.535	0.451	0.002	2.03
2	0.601	0.532	0.000	2.019

Source: authors' calculations

Critical values for Durbin-Watson coefficient were determined for number of predictors (p=4): DW_L=1.16239; DW_U=1.65101. There was no autocorrelation in residuals.

Table 7

Coefficients' statistics (Sig.)

Predictor	Model 1	Model 2
Constant	0.761	-
JUR1	0.299	0.306
JUR2	0.099	0.093
JUR3	0.892	0.810
No_ent	0.000	0.000

Source: authors' calculations

Analysis of regression coefficients showed statistical significance of beta for JUR2 at 0.1 level. Coefficients for predictor No_ent is 100 % statistically significant, as it was predicted.

The next stage of the research was devoted to investigation of the impact of educational and

financial support factors on SE volume and popularity in a country.

Eight regression models were constructed (4 modes – with a constant variable and 4 models – without).

- 1) DepVar1; Predictors: Const, ATB1, ATB2, ATB3, ATB5, ATB10.
- 2) DepVar1; Predictors: ATB1, ATB2, ATB3, ATB5, ATB10.
- 3) DepVar2; Predictors: Const, ATB1, ATB2, ATB3, ATB5, ATB10.
- 4) DepVar2; Predictors: ATB1, ATB2, ATB3, ATB5, ATB10.
- 5) DepVar1; Predictors: Const, ATB4, ATB6, ATB7, ATB8, ATB9.
- 6) DepVar1; Predictors: ATB4, ATB6, ATB7, ATB8, ATB9.
- 7) DepVar2; Predictors: Const, ATB4, ATB6, ATB7, ATB8, ATB9.
- 8) DepVar2; Predictors: ATB4, ATB6, ATB7, ATB8, ATB9.

The results of the regression analysis are presented in the Table 8.

Table 8

**Results of the regression analysis III:
models' summary**

Model	R ²	Adj. R ²	Sig.	DW
1	0.363	0.211	0.073	1.458
2	0.543	0.439	0.003	1.372
3	0.303	0.137	0.151	2.314
4	0.614	0.527	0.000	1.952
5	0.342	0.185	0.095	1.183
6	0.520	0.411	0.004	1.163
7	0.196	0.004	0.430	1.799
8	0.651	0.571	0.000	1.957

Source: authors' calculations

The results of the analysis revealed four statistically significant models (models with no constant variable included). Test for negative autocorrelation in error terms, based on the analysis of Durbin-Watson statistics for these models (p=5; n=27: D_L=1.08364; D_U=1.75274) revealed no autocorrelation in the error terms.

Test for positive autocorrelation was inconclusive for Model2 and Model6; for Model4 and Model8 – no positive autocorrelation in residuals.

Regression coefficients for the models are summarized in the Table 9. Regression analysis revealed statistically significant *positive* relationship between SE volume and training and coaching schemes (ATB5), as well as between SE popularity and (1) SE education (ATB3); (2) grants / business support for established enterprises (ATB4); (3) collaboration and access to market (ATB9). Regression coefficient for physical infrastructure (ATB8) was statistically significant, but negative that, in turn, was not assumed.

Table 9

Coefficients' statistics (Sig.)

Predictor	Model 2	Model 4	Model 6	Model 8
ATB1	0.896	0.862	-	-
ATB2	0.336	0.302	-	-
ATB3	0.697	0.036	-	-
ATB4	-	-	0.678	0.019
ATB5	0.015	0.990		-
ATB6	-	-	0.225	0.214
ATB7	-	-	0.984	0.123
ATB8	-	-	0.443	0.022
ATB9	-	-	0.929	0.012
ATB10	0.855	0.102	-	-

Source: authors' calculations

The attempt to validate the received results by involving into the list of explanatory variables a total number of enterprises and replacing DepVar1 with the number of social enterprises failed. Created regression models were statistically significant, but the regression coefficients were statistically significant only for a predictor "number of enterprises".

Thus, the current research revealed no statistically significant empirical evidence about legal factors' impact on the development of social enterprises. The only relationship between SE-oriented legal framework and SE popularity was confirmed within the study. For sure, with the development of specific legal documents and

requirements the awareness about SE can be increased due to the increasing volume of official announcements, media information, public discussions and etc.

In turn, there is no empirical confirmation regarding the impact of educational and financial support tools on the number of social enterprises. The only one factor – existence of training and coaching schemes – demonstrated the statistically significant positive link with the relative index of social enterprises.

As for SE popularity, the impact of three factors was revealed. However, it should be pointed that the ratio was based on the number of internet search cases in English, ignoring the number of search cases in national language. Besides, Google was used as only information channel. This, in turn, decreases the accuracy of measuring "SE popularity".

Discussing the results, it is important that, in general, almost all European countries demonstrated a low level of social entrepreneurship development. Based on the data of Global Entrepreneurship Monitor (GEM) (Bosma et al., 2015), the highest rates of social entrepreneurial activity were demonstrated by US and Australia, as well as by Western Europe countries. Besides, these regions "have the highest ratios between social entrepreneurship in the operational phase and social entrepreneurship in the start-up phase". It means that in Easter Europe countries (for instance, in Latvia) with low ratios, a range of support mechanisms are not utilized since they were developed for enterprises in the operational stage.

In any case, the awareness of the society about social entrepreneurship and its importance should be increased. "Recognition, strengthening and promotion of social enterprises" was one of the main recommendations for policy makers prepared by Latvian team involved in the "Pilot Project for Identification of Social Enterprises and Assessment of their Economic Impact in Latvia"

granted by the European Commission" (EC, 2014).

The current study is aimed, additionally, to contribute to the raising of awareness about social entrepreneurship and social enterprises in the academic environment.

Conclusions, proposals, recommendations

- 1) The study was aimed to determine the relationship between social entrepreneurship development level in European countries and a range of legal, education support and financial support factors.
- 2) The largest relative index of social enterprises (SE volume) was demonstrated by France, Germany and UK. In turn, popularity of social entrepreneurship was at the highest level in Luxembourg, Ireland, Malta and Bulgaria.
- 3) Regression analysis revealed a statistically significant positive relationship between social

entrepreneurship volume and SE-related legal framework existence at the national level, as well as training and coaching schemes targeting social enterprises.

4) SE popularity, in turn, was influenced by SE educational activities, grants and business support for established enterprises, as well as collaboration network and free access to market.

5) The paper contributes to the body of knowledge and data set on social entrepreneurship in the European Union. Considering that the main source of information regarding social entrepreneurship is national reports (for limited number of countries), the study could attract the interest among academicians and policy makers.

6) The study provides a basis for further investigation of SE influenced factors at the national level.

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