

## THE EUROPEAN TRANSLOCAL EMPOWERMENT: AN ECONOMETRIC APPROACH

**CIALFI Daniela, COLANTONIO Emiliano**

*Department of Philosophical, Pedagogical and Economic-Quantitative Sciences,  
University of Studies G. d'Annunzio, Chieti-Pescara, Italy*

*daniela.cialfi@unich.it*

*colantonio@unich.it*

**Abstract:** *Nowadays, there are numerous initiatives in response to contemporary socio-economic challenges. One possible response could be the social innovation phenomenon defined, according to Avelino et al. (2017), as the changing of social relations and involving new way of doing things. In this context, the aim of the paper is to discuss the empowerment and the social innovations concept by developing the empowerment mechanisms under a social psychology point of view, at one side, and exploring, in an empirical way, how people are empowered through transactional linkages, the translocal network. In particular, it is necessary to identify which translocal empowerment dimension is present across the European countries via the selection and the analysis of the possible social innovation proxies. To do this, it is necessary to comprehend the social innovation determinants at the macro-economic level across the European countries. Using the Akgüç multivariate regression model (2019), the paper studies the role of one possible social innovation proxy: the social protection expenditure. Under a methodological point of view, this model is used since it allows the combination between the traditional macro-level variables and the innovative ones, such as cultural norms and fear of failure; and it permits the inclusion of the country-specific characteristics. It also takes into account the macro-economic circumstance, the international financial crisis of 2008 until 2017. This period of analysis permits to control if the international economic crisis in 2008 might have influenced in some way the translocal empowerment dimension and brings together a panel data of different indicators from different data sources, such as Eurostat and Global Entrepreneurship Monitor (GEM), which provides measures of the entrepreneurial behaviour within countries. As part of the robustness check, we have used social innovation measures that could include country fixed effects accounting the heterogeneities across European countries. What emerges from the present empirical study is that the translocal network could be considered as a crucial factor for the social innovation implementation, since social innovation actors might access the local resources, developing, at the same time, the ability to interface with the local institutions, present in the current socio-economic system.*

**Keywords:** *Translocal empowerment; social innovation; panel data method; cross-country analysis; Europe.*

**JEL Classification:** *C13; O31; O52.*

## 1. Introduction

Nowadays, there are numerous initiatives in response to contemporary socio-economic challenges. In this framework, social innovation could be defined as the changing of social relations. Its principal characteristic is to be transformative since it alters and replaces the dominant institutions, according to Haxeltine et al. (2017). Community members could learn new skills through the people's empowerment existing in social relations. The aim of the present paper is to identify which translocal empowerment dimension exists across European countries via the selection and analysis of the possible social innovation proxies.

This paper is structured as follows. Section 2 provides a literature review of the empowerment and social innovation concepts under a theoretical approach. In Section 3, the description of the Akgüç econometric model (2019) is provided and the variables used for the empirical analysis are shown. Section 4 shows the estimation of the social innovation proxies, the results and their robustness checks for the period 2007-2017 are discussed. The last section provides some concluding remarks.

## 2. The translocal empowerment and social innovation concepts

The empowerment concept could be defined, according to Sen (1999) and Avelino et al. (2017), as the process through which actors gain the capacity to mobilize resources to achieve a goal. More deeply, in this process, actors:

- have access to resources, defined as mental (such as information and ideas), human (such as personnel and voters), artifactual (infrastructures) and natural (physical space);
- are capable to accumulate resources to reach the goal.

This concept is translated in an empirical way through the combination of the self-determinant theory of Ryan and Deci (2000) with the research of Thomas and Velthouse (1990). They developed five psychological dimensions:

- Relatedness;
- Competence;
- Impact;
- Meaning;
- Resilience.

In particular, the self-determinant theory is based on the satisfaction of psychological and universal needs with the aim to reach a well-being. We try to understand this aspect by examining in which ways social innovation could support the growth of individuals. As we have affirmed, there are two basic psychological needs:

- Relatedness, which refers to be part of a social group and receive recognition from it;
- Competence, which is based on the perception of effectiveness in complete actions (Bidee et al., 2013).

According to Thomas and Velthouse (1999), the ability to achieve goals necessitates the same degree of impact and meaning, which supports the passage of innovation. This capacity is the resilience, the last empowerment dimension.

As a consequence, psychological dimensions are present at an individual level but at the same time they are established through relations, shared practices and collective actions. Using this type of conceptualisation, we try to analyse which way actors in social innovation networks put in action the above empowerment concept within the translocal networks defined, according to Greiner and Sakdapolrak (2013), as networks in which local connections between actors and local initiatives are important.

Focusing the attention on the social innovation concept, it could be used for understanding some modern social problems, such as unemployment and inequalities across and within countries. While these problems have been discussed in Canada and the United States, according to the Economist Intelligence Unit (2016), European countries have only begun to debate them recently. Under the empirical point of view, researches are based on qualitative methods, such as interviews with social innovators; under the statistical methodology point of view, instead, only with the Dobele work (2015), it began the cataloguing of the possible components that might influence the social innovation growth, although her work focused the attention only on one country. In this framework, the aim of the paper is to identify which dimension of the translocal empowerment exists across European countries through the study of the country social protection expenditure effect, configured as one possible social innovation variables, using the Akgüç model approach. This model combines the traditional macro-level proxies with the innovative ones, like cultural norms and fear of failure.

### 3. Methodology, data collection and variables used

This section provides a picture of the methodology used for the estimation of the social innovation in terms of translocal empowerment proxies. It also provides a description of the variables used in the paper, distinguished in dependent and explanatory ones.

The aim of the Akgüç model is to identify a link between the dependent variable, the social innovation proxy of a country, and the possible explanatory variables. More deeply, he estimates the following fixed effects panel model equation:

$$Y_{it} = a_j X_{j,it} + \gamma_i + \varepsilon_{it} \quad (1)$$

where  $Y_{it}$  is the translocal empowerment dependent variable,  $X_{j,it}$  are the explanatory variables, where  $j = 1, \dots, n$  are the different explanatory proxies,  $i = 1, \dots, m$  are the European countries and  $t = 1, \dots, T$  is the time dimension. The equation (1) possesses a fixed effect because of the presence of the term  $\gamma_i$ , the specific characteristics of a country during the considered period of analysis, while a random error term  $\varepsilon_{it}$  is present in order to consider any possible shock. Akgüç used a standard panel data with country fixed effects in order to catch country characteristics that might influence the chosen dependent variable. He collects the standard errors at country level to check the possible existence of correlation between error terms themselves and if they are statistically robust to avoid the heteroscedasticity phenomenon.

Under the data collection and variables point of view, data were collected from different sources, since this issue enters into the European political and economic agenda only recently; according to Liger et al. (2016), indeed, the consequent lack of data could be due “[...] both to the differences in legal status and the roles it plays within the single EU Member States and to the attention traditionally paid by statistical offices to social economy entities.” (p. 77).

Despite this data limitation, the macroeconomic indicators, such as GDP per capita, social protection expenditure, tertiary education attainment, unemployment rate, share of people at risk of poverty and gender pay gap, come from the Eurostat database. Linked to the previous traditional variables, in this database there are other proxies connected to entrepreneurship and innovation; even if these proxies are not explicitly centred on social innovation they could influence the surrounding environment in which they operate. Furthermore, these variables come from the Global Entrepreneurship Monitor (GEM), which provides measures of the entrepreneurial behaviour within countries. The following Table 1 presents the list of variables used in the empirical analysis, divided into the empowerment dimensions previously identified.

**Table 1:** List of used variables (years: 2007-2017)

Empowerment dimension	Variable
Relatedness	Social protection expenditure Poverty risk
Competence	Commercial and physical infrastructures
Impact	Gender pay gap Unemployment rate Tertiary education attainment Total government expenditure Job creation rate GDP per capita

Empowerment dimension	Variable
Meaning	Cultural and social norms
Resilience	Fear of failure rate

Source: Authors' representation

In this paper, the *Social protection expenditure* has been used as a social innovation measure, identifying it as a dependent variable. Being defined, according to the Eurostat, as the “[...] interventions from public and private bodies intended to relieve households and individuals of the burden of defined set of risks or needs [...]”, it is possible to affirm that social protection schemes could be enforced in a social innovative way and hence it might be identified as a proxy for social innovation. Regarding the period of analysis, given the data availability, it covers the years from 2007 to 2017. This time limit permits to control if the international economic crisis in 2008 might have influenced in some way the translocal empowerment dimension.

#### 4. Estimation results

Starting with the summary statistics, as reported in Table 2, the social protection expenditure is on average 16% of GDP across the European countries, and it highlights great differences, between the minimum (0%) and the maximum (25%). The percentage of people at risk of poverty and social exclusion is about 23% across countries, with the maximum sharing around 60%.

**Table 2:** Summary statistics

	Mean	Median	Minimum	Maximum
<i>Dependent variable</i>				
Social protection expenditure	16.34	16.40	0.00	25.60
<i>Explanatory variables</i>				
Gdp per capita	26621	24450	10400	77300
Gender pay gap	14.202	15.100	-0.900	30.900
Poverty risk	22.41	22.90	0.00	60.70
Unemployment rate	32.07	33.55	0.00	0.00
Total government expenditure	44.95	45.42	26.30	65.00
Tertiary education attainment	28.47	28.80	12.00	46.50
Fail of failure	26.84	34.45	0.00	61.58
Cultural and social norms	1.664	2.250	0.000	4.010

Source: Authors' elaboration

Following, Table 3 shows the estimated results for the social protection expenditure.

**Table 3:** Determinants of social protection expenditure

	Estimate	Std. Error	t-value	Pr(> t )
Tertiary education attainment	0.297048	0.036282	8.1872	1.288e-14 ***
Gdp per capita	- 0.275980	0.057381	-4.8096	2.588e-06 ***
Total government expenditure	0.760380	0.060829	12.5003	< 2.2e-16 ***
Gender pay gap	- 0.032604	0.014560	-2.2393	0.026 *
Residual Sum of Squared: 0.69354 R <sup>2</sup> : 0.61945 Adj. R-Squared: 0.57319 F-statistic: 103.771 p-value: < 2.22e-16				

Source: Authors' elaboration

We can summarise from Table 3 that the total government expenditure is a positive and significant social innovation estimator. This goes along with the findings that countries with the most successfully social innovation plans are the ones with the higher total government expenditures, such as the Nordic countries, France and Austria. Tertiary education attainment exhibits a positive relation with social innovation even if its influence diminished with the presence of other factors, such as gender pay gap and GDP per capita. As before, in countries with a large share of higher educated population, it is possible to observe a greater presence of winning social innovation strategies. The presence of a negative relation between GDP per capita and Gender Pay Gap could be explained in the following way. The existence of a negative relation between gender pay gap and social protection expenditures, according to Rubery and Koukiadaki (2016), social policies could have a negative impact in at least two different aspects. First, social protection affects the way women who become mothers are able to develop careers in their jobs; second, it might encourage the gender division of labour with respect to their job roles. Regarding the negative relation between GDP per capita and social protection expenditure, it is possible to explain this phenomenon by dividing the analysis into two periods: the expansion and fiscal stimulus, during the international financial crisis, and the social consolidation, from 2010 to 2016. More deeply, during the international financial crisis, most of the countries scaled the share of public social expenditure for sustaining the growth and protecting population from the adverse effects of financial shocks. However, as the crisis moved to its second phase, from 2010 to 2016, the previous cyclical measures were short-lived, since governments usually abandoned the fiscal stimuli and introduced, instead, fiscal consolidation measures, showing a significant contraction through, for example, the reduction of the subsidies and the tax increment on consumption, and the social protection benefits reduction.

## 5. Conclusions

In this paper we have explored in an empirical way how the transactional empowerment is spread across European countries through the study of one possible social innovation proxy: the social protection expenditure.

As it is possible to stress out from the entire paper, the translocal network could be considered as a crucial factor for the social innovation implementation, since social innovation actors might access local resources, developing, at the same time, the ability to interface with the local institutions present in the current socio-economic system. More deeply, as shown in the paper, social innovation is positively associated with the level of education and total government expenditure, considering the country-specific fixed effects.

Under the future research point of view, it would be necessary if a comparison of the different empowerment processes across different European translocal networks, assessing the social drivers in terms of, for example, social justice and sustainability.

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