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CAN NETWORKS OF INTERPERSONAL RELATIONSHIPS HELP HOUSEHOLDS DEAL WITH TIMES OF ECONOMIC CRISIS? THE ROLE OF FAMILY WORKERS

Abstract. Family workers are persons who help, without monetary remuneration, another member of the family to run a business and therefore they fit fully in what Bourdieu (1986) called “the [households] actual or potential resources, linked to possession of a durable network of more or less institutionalized relationships which help to reduce people social exclusion”, a significant nonmaterial dimension of poverty (Sen, 2000). A previous paper (Guagnano and Santini, 2015) highlighted the main characteristics of family workers in the European Union and their role played within households as a tool to alleviate poverty. The aim of this paper is to evaluate if and to what extent the role of family worker is affected by times of crisis in the European Union and more specifically across countries. The analysis is based on EU-SILC survey data. The paper shows that in the European Union, except only for a limited number of countries, the role of family workers within family businesses seems to have strengthened during the recent economic crisis (when?), in favour of a more active and less occasional contribution.

Keywords: family workers, European Union, poverty.

1. Introduction

It is well-known that the European economic production system consists mainly of SMEs - micro, small and medium enterprises¹. According to the European Commission Annual Report on European SMEs 2014/2015 (page 3), *SMEs are ubiquitous, and in 2014 accounted for 99.8% of all enterprises in the non-financial business sector² in the EU28. For every km² of land surface the EU has an average of 5 SMEs. Moreover, in 2014 SMEs employed almost 90 million people - 67% of total employment, and generated 58% of the sector’s value added. Almost all SMEs (93%) are*

* Sapienza University of Rome.

¹ According to the Commission Recommendation of 6th May 2003 concerning the definition of micro, small and medium-sized enterprises [notified under document number C (2003) 1422-2003/361/EC, Annex, Title 1, Article 2]:1. *The category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding 50 million euro, and/or an annual balance sheet total not exceeding 43 million euro. 2. Within the SME category, a small enterprise is defined as an enterprise which employs fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed 10 million euro. 3. Within the SME category, a micro enterprise is defined as an enterprise which employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed 2 million euro.*

² The non-financial business sector includes all sectors of the economy except for financial services, government services, education, health, arts and culture, agriculture, forestry and fishing.

micro SMEs employing less than 10 people. A large share of European SMEs are family businesses³, where a relevant economic and social role is played by “family workers”.

According to the International Labour Organization⁴ definition, (*unpaid*) family workers are persons who help another member of the family to run an agricultural holding or other business, provided: i) there is a direct family link with the owner (son/daughter or husband/wife); ii) they are not considered as employees; iii) they live in the same household as the owner of the business or farm, or in a slightly broader interpretation, in a house located on the same plot of land and with common household interests; iv) they often receive a remuneration in the form of fringe benefits and payments in kind.

The essential features of the family worker are, therefore, the relationship with the owner of the business, the condition of self-employment, the absence of monetary remuneration and the sharing of the same dwelling as the owner. The family worker fits, therefore, fully in what Bourdieu (1986, p.51) called *the [households] actual or potential resources, linked to possession of a durable network of more or less institutionalized relationships [...] such as those of kinship that are at once necessary and elective, implying durable obligations subjectively felt (feeling of gratitude, respect, friendship and so on) or institutionally guaranteed (rights), thus reducing people social exclusion*, which represents a significant nonmaterial dimension of poverty (Sen, 2000).

Such relationships represent a particular important household resource that can be assimilated to a form of capital, the so-called social capital, which is rooted in networks of interpersonal relationships characterized by mutual trust and that, as stated by Woolcock (2002, p.20), has specific importance especially for those families who are often described as deficient along other vectors: such as human, physical, and financial capital. The networks of interpersonal relationships have, in fact, a productive capacity that extends far beyond the creation of purely economic results, encouraging the development of civic-minded cooperative behavior models (Knack and Keefer, 1997). As a matter of fact, these networks allow families easier access to economic and financial resources, to information or assistance, from which they can derive benefits such as, for example, better social status, better education, more and better job opportunities, and so on. In addition, living in a social context where mutual trust replaces suspicion and fear produces a positive effect on the perception of poverty, reducing households' socio-economic vulnerability (Helliwell, 2001).

Family workers play, therefore, a crucial role within the household, an economic one, as they help without remuneration another member of the family to run a business, and a social one, as they contribute to fostering trust and cohesion which alleviate household poverty.

³ According to the European Commission family businesses have the following features: 1) The majority of decision-making rights are in the possession of the natural person(s) who established the firm, or in the possession of the natural person(s) who has/have acquired the share capital of the firm, or in the possession of their spouses, parents, child, or children's direct heirs. 2) The majority of decision-making rights are indirect or direct. 3) At least one representative of the family or kin is formally involved in the governance of the firm. 4) Listed companies meet the definition of family enterprise if the person who established or acquired the firm (share capital) or their families or descendants possess 25 per cent of the decision-making rights mandated by their share capital.

https://ec.europa.eu/growth/smes/promoting-entrepreneurship/we-work-for/family-business_it
accessed 16th June 2017.

⁴ *International Classification by Status in Employment* (ICSE-International Labour Organization, ILO - <http://laborsta.ilo.org/applv8/data/icsee.html>).

A previous paper (Guagnano and Santini, 2015) highlighted the main characteristics of family workers in the European Union and their decisive role within households as a tool to alleviate poverty. In fact, they represent an important economic and social resource with a different function depending on the country of residence. Nevertheless, some questions remain unanswered: during the recent business cycle recession, a period characterized by high uncertainty with regard to general economic perspectives, in all the European countries the relevance of family workers decreased, albeit to varying degrees. Has this reduction been accompanied by changes in their role within family business? In all countries? Moreover, to what extent? Has the economic crisis – and the consequent job insecurity and labour market transformations - weakened, strengthened or merely modified the role of family workers within family business? To sum up, do networks of interpersonal relationships, well rooted in the role played by family workers, help to overcome difficulties arising from the labor market crisis and, eventually, to what extent and in which way?

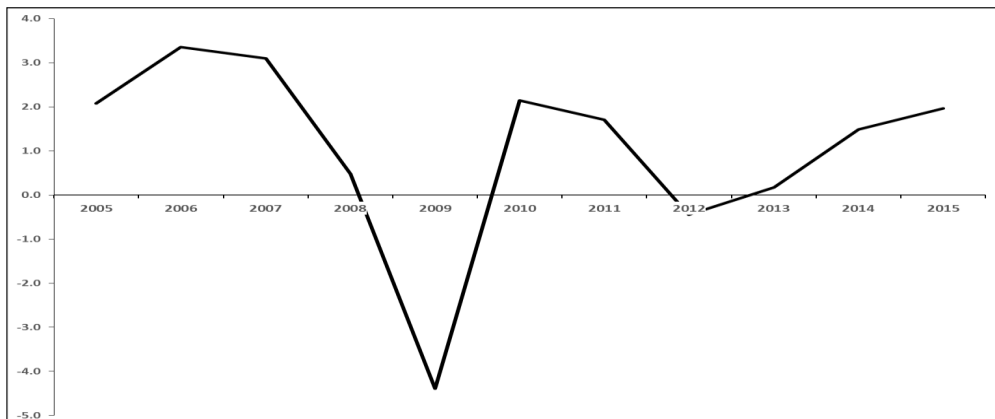
The analysis of data from the EU-SILC survey, with reference to the EU27, can help to answer the aforesaid questions.

The paper is organized as follows: Section 2 describes the data and the methodology used, Section 3 presents the results and Section 4 provides some concluding remarks.

2. Data and methods

Figure 1 reports the percentage annual change in GDP in EU27. The Figure shows that the economic crisis started in 2008, when a first strong contraction of GDP occurred and, despite a brief upturn in 2010 and 2011, the economy seemed to recover slowly only in 2014.

Figure 1. Gross domestic product at market prices (chained linked volumes 2010): percent change compared with the previous year - EU27.



Source: EUROSTAT.

So the starting point of this research is to highlight the peculiarities and differences in the role of family workers in EU countries in 2007, before the economic crisis started, and to show later if and to what extent this role changed in 2014 when the economy seemed to recover.

From a methodological point of view and in accordance with the aim of this paper, the EU-SILC⁵ longitudinal component is appropriate data to use as it allows us to follow up each family worker over time in order to detect possible changes in the occupational status, and in general in their behavioural patterns.

Unfortunately, EU-SILC longitudinal component does not allow long-term analysis. As a matter of fact the longitudinal component is more limited in sample size compared to the cross-sectional one and furthermore, for any given set of individuals, micro-level changes are followed up only for a limited duration, such as a period of four years. So inevitably, the EU-SILC cross-sectional component has been used.

In order to outline the family workers behavioural patterns, their role within family business and if and to what extent this role changed during the recent economic crisis Multiple Correspondence Analysis (MCA-Benzecri, 1972; Lebart and Tabard, 1973) has been applied.

In particular, MCA allows us to analyse and compare the characteristics of a set of n individuals on the basis of Q categorical variables. The q -th variable has J_q categories so that the total number of categories is

$$J = \sum_{q=1}^Q J_q \quad (1)$$

Technically, MCA is obtained by using a binary Correspondence Analysis (CA) on the matrix Z , with n rows and J columns, which describe the characteristics of each individual on the basis of the Q binary coded categorical variables, or on Burt's table B associated with Z : $B=ZZ'$ made up of Q^2 frequency tables. In particular, the q^{th} squared table $Z'_q Z_q$ is a diagonal $J_q \times J_q$ matrix as each individual cannot be simultaneously characterized by two categories of the same variable and the matrix $Z'_1 Z_2$ is the contingency table which crosses the categories of the variables 1 e 2 (Lebart, Morineau and Warwick, 1987).

In particular, and in accordance with the aim of this paper, MCA has been applied to the Burt matrix obtained on 2007 EU-SILC cross sectional data in order to highlight the family workers behavioural patterns and their role within family businesses the year before the economic crisis started. Setting as supplementary individuals the rows of the Burt matrix obtained on 2014 EU-SILC data, that is the expansion phase survey, allowed us to identify if and to what extent this role changed in 2014 with respect to 2007, that is during the economic crisis.

The family workers behavioural patterns have been identified in each period by means of the variables shown in Table 1, which have been used to build up the Burt matrices of dimension $J \times J$, where $J = 118$. The categorical variables selected are those which provide a general description of the phenomenon.

⁵ EU-SILC is the Eurostat project that aims to monitor households' income and living conditions in the European Union for a responsible planning of economic and social policies in favour of families. The data were made available by Eurostat following the approval of the Research project proposal 323/2015-EU-SILC 'Social capital, poverty and implications for public policies'. In the EU-SILC survey, the status *family worker* refers to the main job of individuals aged 15 years and over. If multiple jobs are held or were held, the main job should be the one with the greatest number of hours usually worked.

Table 1. MCA active variables and modalities.

1.Age < 18 18-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 ≥80	7.Branch of activity Agriculture Manufacturing Construction Wholesale retail Hotels and restaurants Transport and storage Financial and insurance activities PA Education Health and social work Other	15.Equivalized disposable income 1st quintile 2nd quintile 3rd quintile 4th quintile 5th quintile			
			16.Ability to make ends meet With great difficulty With difficulty With some difficulty Fairly easily Easily Very easily		
				17.Poverty indicator Not at risk of poverty At risk of poverty	
					18.Severely materially deprived Not severely deprived Severely deprived
				2.Gender Male Female	
		3.Marital status Never married Married Separated/Divorced			10.When began first regular job < 15 15-17 18-19 20-21 22-24 25-29 ≥30
			4.Consensual union Yes, on a legal basis Yes, without a legal basis No	11.General health Very good Good Fair Bad Very bad	
		5.Educational qualification Pre-primary Primary Lower secondary Upper secondary Post-secondary Tertiary			12.Suffer from any chronic illness Yes No
			6.Self-defined economic status Working full-time Working part-time Unemployed Pupil, student, further training In retirement Disabled In compulsory military service Fulfilling domestic tasks Other inactive person	13.Limitation in activities Yes, strongly limited Yes, limited No, not limited	
		14.Household type One person household 2 adults both adults < 65 years 2 adults at least one ≥65 years Other without dependent children Single parent and ≥ 1 dep children 2 adults, one dependent child 2 adults, two dependent children 2 adults and ≥ 3 dep children Other with dependent children Other household type			

3. Results

Unpaid family workers are in all respect part of the workforce according to the EU Regulation 1897/2000. In 2014 in EU26⁶ family workers account for just 1.2% of the

⁶ Unfortunately, the 2007 cross-sectional data are not available for Malta, despite the fact that the country joined the EU in 2004. Therefore, the analysis has been carried out on EU26 EU-SILC cross-sectional data.

European employed. The majority of family workers are women (77.8%) and account for 1.8% of female employment compared to just 0.5% of male employment. The relevance of family workers in the European Union has diminished since 2007 especially regarding females (Table 2). This reduction is mainly due to the decrease in the number of family businesses and of their personnel during the recession. Therefore, the recent economic crisis had a significant impact on family businesses; despite the fact that the literature suggests an opposite behavior. As a matter of fact, many authors claim that family businesses are the driving force behind the global economy and have performed better than non-family businesses during the recent economic crisis (KPMG, 2015; Siakas et al., 2014; Amann and Jaussaud, 2011) as special family ties can help them overcome problems with minimal losses (Piraeus Traders Associations, 2009).

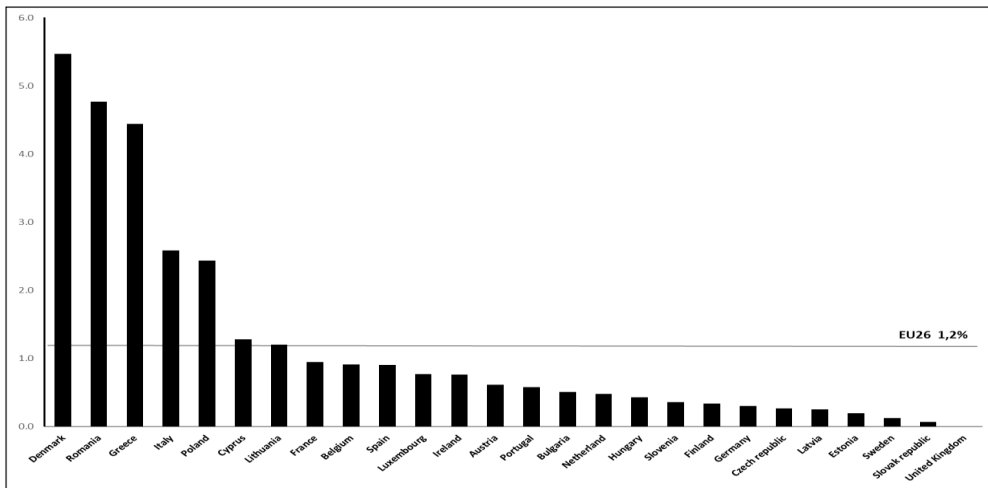
Table 2. Family workers in the European Union (EU26 - % with respect to total employment according to gender- 2007 and 2014).

Gender	2007	2014
Male	0.7	0.5
Female	2.6	1.8
Total	1.6	1.2

Source: EU-SILC, 2007 and 2014.

However, what as a whole seems a negligible phenomenon, has country-specific peculiarities as shown in Figure 2.

Figure 2. Status in employment: % family workers with respect to total employment - EU26 - 2014.



Source: EU-SILC, 2014.

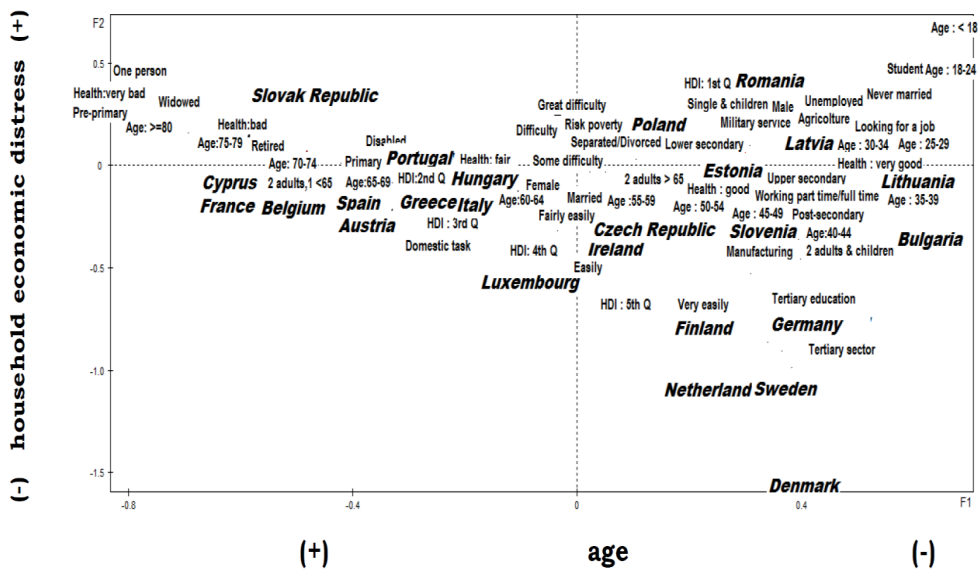
In order to highlight if the reduction in the relevance of family workers has been accompanied by changes in their role within family business, MCA has been applied.

Only 25 EU countries took part in the analysis. Malta and the UK were excluded. Malta for the reasons above mentioned, and in the UK no family workers were observed both in 2007 and 2014.

The results of MCA on 2007 EU-SILC data are well described by the first two factorial axis (F1 and F2), which account for 73,2% of the total variability of the phenomenon. Variables with higher than average contributions are plotted. Figure 3 shows that in the European Union the role of family workers within the family business depends on two aspects:

- age and the self-defined economic status (measured by the first factorial axis – F1), and
- household economic distress (measured by the second factorial axis – F2).

Figure 3. Multiple correspondence analysis: projection of active variables on F1 and F2 - 2007.



In particular, on the left side of the graph we find those countries where the family workers are predominantly one person households, female, on average older than 60 years, define themselves retired, fulfilling domestic tasks or disabled, with a low level of education and report a poor health status.

On the contrary, on the right side of the graph we find countries where the family workers are predominantly younger than 60, define themselves active (employed or unemployed), with a high level of education and report a fair or good health status. On both sides of the graph, the countries form two distinct groups: one on the lower side, where the family workers generally belong to well-off households, and those on the upper side where the family workers belong chiefly to poor and deprived households.

Therefore, the first factorial axis seems to be an indicator of the role played by family workers within family businesses. In fact, in the countries situated on the right

side of the graph, family workers seem to work in the family business not occasionally as we can infer from the self-defined current economic status, the age and the health status. Thus, the role played by the family workers can be assimilated to ordinary forms of paid employment and self-employment and transitory only for the younger ones, who declare themselves unemployed and looking for a job, such as the case of Romania, Poland and Latvia. On the contrary, in the countries situated on the left side of the graph, the family workers, mainly retired, fulfilling domestic tasks or disabled, seem to work in the family business occasionally and in a spirit of solidarity, as we can deduce from the age and the health status.

Setting as supplementary the 2014 Burt matrix allows us to identify and analyze the trajectories of the countries between 2007 and 2014 in order to assess if and to what extent the role of family workers, identified by interpreting the first factorial axes, changed during the recent economic crisis (figure 4).

Figure 4. Multiple correspondence analysis: projection of countries on F1 and F2 - 2007- 2014.

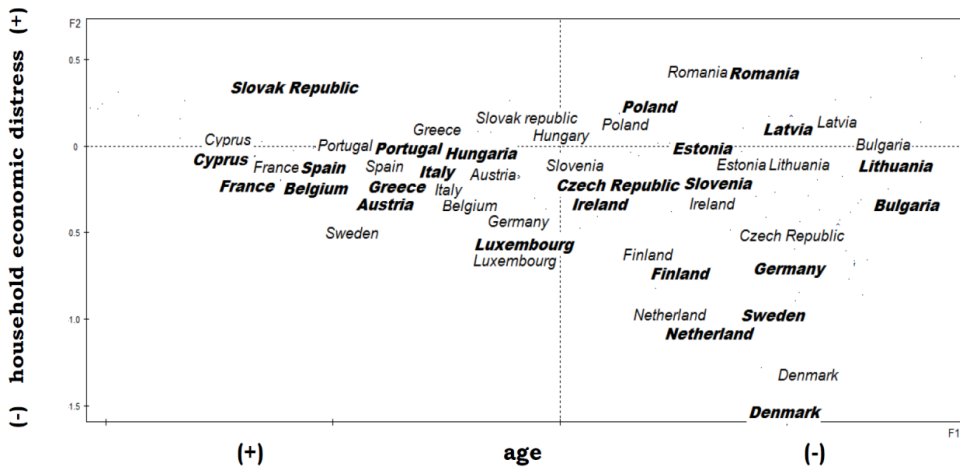
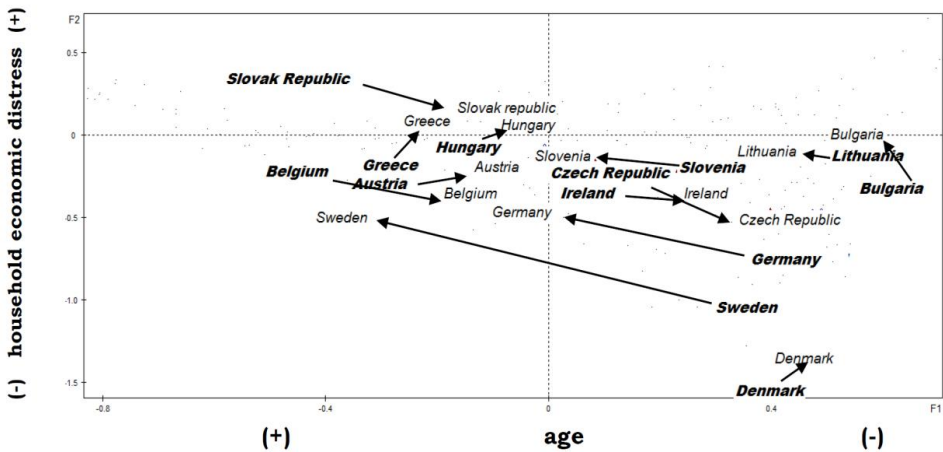


Figure 5. Multiple correspondence analysis: projection of countries on F1 and F2-2007- 2014.



Looking at the position of the countries (the 2007 position is shown in bold) we can note that 13 countries out of 25 reveal significant changes. In order to better analyze these changes, only those countries which recorded significant variations have been plotted.

8 countries out of 13 show similar trajectories from left to right, (figure 5) although with different angles (which measures a change in household economic conditions) and intensity.

The countries on the left of the figure, where the family workers are mainly retired, fulfilling domestic tasks or disabled, who seem to work in the family business occasionally and in a spirit of solidarity, show similar trajectories towards the right side of the graph. This seems to reveal a change, although in its early stages, in favour of an active and more permanent contribution of family workers within the family business. Similar changes are recorded in Ireland, the Czech Republic and Denmark where the active role of family workers within family businesses seems to strengthen as they are already situated on the right side of the graph.

On the contrary, Bulgaria, Lithuania, Slovenia, Germany and Sweden, show variations in the opposite direction, towards the left side of the graph, where family worker contribution seems to be occasional and in the spirit of solidarity.

While it is quite clear the reason why the first type of change occurred in times of crisis when it is difficult to find a permanent job, less clear is the reason why the second type of change occurred. These changes could be due to different reasons, such as for example the aging of the population, specific labor law revisions, aspects that need more detailed and in-depth analysis. Moreover, another question remains open: are the changes recorded in times of crisis permanent?

4. Conclusion

The paper examines the role of family workers within family business in EU27. Moreover, it evaluates if and to what extent the role changed during the recent economic crisis. The results reveal the important role played by family workers. In fact, they represent a crucial economic and social household resource with a different function depending on the country of residence. Furthermore, in the majority of EU countries the recent economic crisis seems to have affected how family workers support the family business, in favour of an active and more permanent contribution. This means that networks of interpersonal relationships well represented by the role played by family workers, undoubtedly help to overcome the economic crisis.

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