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Solidarity economy, social and cooperative enterprises: The view of citizens in Greece

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This paper investigated the factorial composition and the internal coherence of α questionnaire on Solidarity Economy (SE) and Social and Cooperative Enterprises (SCE) based on data gathered from a sample of 214 citizens region of Thessaly. The questionnaire consists of three categories of questions that refer to: a) citizens' statements related to Social and Cooperative Enterprises (scale A); b) barriers to the Development of the Social Entrepreneurship (scale B) and c) charm of a collective enterprise (scale C). Social economy includes all cooperatives, credit unions, non-profit and voluntary organizations, charities, municipal enterprises, and Social and Cooperative Enterprises that use the market mechanism for social benefit. It includes profit-making social organizations that they distribute to members. Social Economy is the only system aimed at the prosperity of society, equality and democracy. Solidarity economy is more a strategy and in this terms, works as an adding value to the social economy. The solidarity economy defines the roles of individuals who participate in organizations with a social purpose. Factor and cluster analysis identified 8 factors for scale A, 6 for scale B and 5 for scale C, which interpret 79.40, 77.78 and 85.20% of the total variance in the respective data sets. The variance analysis (ANOVA) showed that the most important factors of scale A can be considered: (1) Supporting a SCE with cash or voluntary work; 2) Voluntary work offer; 3) SCE are collective property companies and act democratically, and 4) SCE must be adequately funded by the state, because in any of the independent of scale B, the lack of knowledge and of scale C the sensitivity to environmental protection and creating a new culture with social sensitivity.

Key words: Social and solidarity economy (SSE), social and cooperative enterprises (SCE), questionnaire, scale, factor analysis, cluster analysis.

INTRODUCTION

The financial crisis that has come from Wall Street's excesses has influenced the middle class of the Western World. The result of the crisis was to lose assets to both individuals and businesses. The economic elite (a small

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minority) increased its incomes, while wages either remained stagnant, either declined or diminished despite productivity gains. Social cohesion has thus been dismantled as poverty and unemployment have risen, labor relations have elasticized, hours of work have increased, and the number of insured persons has fallen (Speth, 2011). According to Galbraith (2010) the mobility of people, especially in the agricultural sector, in the industrial and service sectors, in line with global trade conditions, is the main cause of the existing inequality in global society.

LITERATURE REVIEW

Capitalism creates inequality (Li, 2017). Capitalism aims to maximize profit and minimize costs, and with this reason it does not accept the redistribution of wealth, but corporate socialism (Shahrokhi, 2011). So the citizens (the middle and the low order) are too bad. Social automatisms and the importance given to individual rather than systemic responsibility, result in austerity measures that will lead to growth in the next stage. This is the utopia of growth; Austerity raises unemployment, reduces incomes and brings terrible social changes (Borges et al., 2013). What solution can there be? Perhaps it is the creation of a society based mainly on the wider cooperation of citizens, in communication, in societies, in mutual aid, in the emergence of the capacities of every person, in morality, in the center of man and not in the maximization of profit. This creates a net of social security and creation, the third pillar of the economy, and the economy of solidarity.

On the other hand, the political and environmental crisis reflects the state's inability to enforce the laws that ensure the functioning of the democratic system. In the globalized economy of the demolition of the welfare state, they are "reinventing" the social economy enterprises (Jeantet, 2007; Polain et al., 2018). Countries that lend are wealthy countries, while borrowing countries are usually the poorer countries in economic recession, so the globalized market creates inequalities (Galbraith, 2010; Kanbur, 2015). These inequalities create the poverty and the need for another economy based on democracy, solidarity, respect for diversity, and moral with other human values. According to Signori and Forno (2016), people who belong to a group of solidarity are socially active, are interested in politics and collaborate with others for the good of society, feel more cooperative and trust others. Schifani and Migliore (2011) argue that man now knows his choices and with his behavior tries to contribute to the well-being of society. That is, solidarity characterizes the current consumer. It recognizes that the interests of others can go hand in hand with the pursuit of the same interest. The important thing is that the concepts of morality and solidarity can play a decisive role in the consumer decision-making process (Carrera,

2009). The word "solidarity" has a no-cost concept. It is usually a slogan. But a solidarity-based activity of people aims to redistribute scarce resources. The desire to contribute is influenced by the effectiveness of the aim of solidarity. This desire is reinforced by solidarity feelings (Kritikos et al., 2007).

The crisis in Greece created Social Welfare Centers that aimed at offering medical examinations and providing medication to people who did not have access to medical services because they lacked social security. If social doctors were not established by volunteer doctors and other people, many of the patients would be at risk of dying. The willingness to contribute is mainly influenced by the effectiveness of the goal of solidarity and is reinforced by the feelings of mutual exchange (solidarity) within a group. Solidarity is the generous support of weak people from a welfare state. But it can be set as a way of redistributing income, other than taxation (Arnsperger and Varoufakis, 2003).

While the distinctive role of the Social Economy has recently been recognized, it is nevertheless a very important part of Europe's political, social and economic history. It first appeared in Greece in the 18th century with the Cooperative in the Ambelakia of Thessaly in Greece and France in the 19th century. Its usefulness has had a great impact on the rest of Europe. In the United Kingdom, the foundations of the social and solidarity economy were laid in the United Kingdom in 1844 by Rochdale's pioneers. After many attempts and under very difficult conditions, they managed to establish a consumer cooperative that is a model until nowadays. Moulaert and Ailenet (2005) point out that Solidarity Economy appeared in ancient Greece by raising money for events and funeral ceremonies and in ancient Rome with the funding of craft associations. Over time, the concept of social economy has evolved and changed. Today, the concept of Social Economy is placed between the Public and the Private Sector. Its purpose is to meet social needs that are not covered by the private sector due to low profitability and the public sector is absent for financial and financial reasons.

According to Mertens (1999), the social economy is called the residual dimension of the other two forms of the economy: private and public. Westlund and Nilsson (2005), as a social economy, consider a number of alternative concepts, such as the third sector, the non-profit sector, the solidarity economy, the alternative economy and the non-profit economy. From a political point of view, the social economy brings people to work together with voluntary commitment for a purpose. For Defourny and Develteve (2009) from the economic point of view, the social economy is defined as the economic activities carried out by enterprises, cooperatively, with members and ethical values. The following can be focused on (WFTO, 2017):

1. Creating opportunities for economically disadvantaged

Table 1. Solidarity Economy in Greece 2012.

Solidarity Economy in Greece 2012	Number of businesses	Number of working positions	Number of members
Cooperatives and other similar businesses - TOTAL	7,197	14,983	1.052,179
Cooperative banks	25	1,238	196,179
Agricultural cooperative	6,376	11,300	713,714
Residential cooperatives	545	n/a	120,242
Cooperatives of electricians	23	200	600
Cooperatives of plumpers	33	200	2,500
Female agrotouristic cooperatives	130	100	2,000
Cooperatives of farmacists	41	1500	5,500
Limited Liability Social Cooperatives	16	400	2,000
Mutual Insurance Cooperatives	7	40	10,000
Mariners Mutual Insurance Cooperatives	1	5	50
Mutual insurance funds and other similar forms - TOTAL	11	1,140	180,000
Mutual Funds	4	1,100	150,000
Professional insurance funds	7	40	30,000
Non profit organisations ecc - TOTAL	50,600	101,000	1,500,000
Unions in general	50,000	100,000	1,500,000
Institutions	600	1,000	-
Non profit organisations	n/a	n/a	n/a

Source: Nasioulas (2012).

producers.
2. Transparency and accountability
3. Fair trade practices
4. Eligible payment
5. Extinction of child labor and forced labor
6. Commitment to non-discrimination of sex, language, color and freedom of association for all.
7. Good working relations.
8. Capacity development capability
9. Promoting fair trade
10. Respect for the environment

In Greece, "Bodies of Social and Solidarity Economy" are:

a. Social cooperative enterprises
b. Social cooperatives of limited liability
c. Employee cooperatives and agricultural cooperatives.

Solidarity economy in Greece

With 2012 data, the cooperatives shown in Table 1 are active in Greece. They are elements of social economy structures, workers and their members. Agricultural cooperatives are the main category, followed by residential cooperatives and cooperative banks. A significant proportion is made up of small business cooperatives (plumbers, electricians, agrotourism). The limited social cooperatives (in fact social cooperatives that include disabled people were only 16.

According to Cicopa, Cooperatives and Employment (2nd global report, 2017), cooperatives employ at least 250 million people worldwide, either as employees or as co-workers, or as cooperative members. Agricultural cooperatives in Greece play an important role in the production and process and marketing of the agricultural sector. Agricultural cooperatives in Greece, amidst the financial crisis, will invest in marketing and networking among rural cooperatives (Kontogeorgos et al., 2015).

DATA AND METHODOLOGY

This work examines the factor composition and the internal coherence of the questionnaire, based on data gathered from a sample of 214 citizens region of Thessaly in order to record and study their opinion on the economy of solidarity and social entrepreneurship.

Determination of the measuring instrument

As a measuring instrument, a structured questionnaire was used with 43 questions (topics, variables) in total, consisting of: (1) questions on citizens' demographics (questions 1 to 7); (2) questions on citizens' statements related to social and cooperative enterprises (SCE) (questions (variables) 8-21 (scale A)); (3) questions on barriers to the development of social entrepreneurship (questions 22-36 (scale B)) and (4) questions examining the charm of a joint venture (questions 37 - 43 (scale C)).
The measurement of the topics of the three scales was calculated with a five-point gradient. The rating includes the following replies (statements): 1 = Absolutely disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Absolutely

agree. The grouping in sub-scales (factors) of the three scales A, B and C will be done by the Principal Component Analysis method, to be used for further analysis.

Data collection

Questionnaires (214) were gathered after telephone communication and on-site visit between October 2017 and November 2017. Lawley and Maxwell (1971) report that using the maximum likelihood method in factor analysis requires a sample size of 51 greater than the number of the topics of the measuring instrument (Lawley and Maxwell, 1971; Kim and Mueller, 1978). In the present case, for the A-questionnaire with the 14 topics (themes), the B questionnaire with the 15 topics (themes) and the C scale questionnaire with the 9 topics (themes), the size of the sample satisfies the Lawley and Maxwell (1971) and Kim and Mueller (1978) condition for the three scales.

Reliability analysis

Statistical analysis of the data was done with the Statistical Product and Service Solutions, SPSS version 23, an IBM Statistics product (Hejase and Hejase, 2013). The internal consistency of the three-scale questionnaires was assessed on the basis of the Cronbach Alpha Index (a-Cronbach) calculated from the application of the reliability analysis to the respective data sets.

Factor analysis-cluster analysis

It followed factor analysis on the three scales by the Principal Component Analysis method in order to group the variables into sub-scales to be used for further analysis. Four steps were followed during the factor analysis: (a) the correlation matrix was created among all the topics (themes) and the suitability of applying a factorial model was investigated; (b) it determined the number of factors sufficient to describe the data and the good application of the chosen model was assessed; (c) for the final factorial solution, rotation of the axes was used so that the factors are clearly interpretable and (d) the factor scores for each factor were calculated.

In order to determine whether the correlation matrix of the questionnaire topics for each scale is suitable for factorial analysis, two criteria were used: the Bartlett sphericity criterion and the Kaiser-Meyer-Olkin (KMO) index. Bartlett's test of sphericity was applied to test the null hypothesis that the correlation matrix coincides with the identity matrix, where all diagonal elements are equal to 1 and all non-diagonal elements are zeros. If the sphericity criterion is low, this assumption will be rejected and then the decision to apply a factor analysis should be reviewed. The 'KMO' index (Kaiser-Meyer-olkih's), the measure of sampling adequacy, is an index of comparing the magnitudes of observed correlation coefficients to the magnitude of partial correlation coefficients. Small index values indicate that factor analysis of variables is not appropriate, since correlations between pairs of variables cannot be explained by the other variables (Anagnostopoulos and Papadatou, 1992).

The determination of the number of factors for each scale (A, B and C) was based on the graphs of the eigenvalues of the characteristic equation of the correlation matrix and the eigenvalues criterion. The hierarchical cluster analysis method (Ward Linkage and Square Distance) was then applied to group the topics-variables of the scales A, B and C. The hierarchical cluster analysis tree was used to group the topics into groups. Finally, the groups formed by each of the two methods were compared for each scale separately.

Analysis of variance

Analysis of variance (ANOVA) was used to test the significance of the difference between the mean values of the different groups created by different independent variables (age, gender, educational level, etc.) for the factors (sub-scale) of each scale of topics. The F statistic was used to test the difference of the mean values of m groups when m≥3 and the statistic t when m = 2. This method analyzed the factors of the three scales in relation to demographic, educational and economic characteristics, namely: gender, age, occupation, education, knowledge of social entrepreneurship and family income.

Correlation coefficients and reordered descriptive statistics

The correlation coefficients and the descriptive statistics of the factors (sub-scales) of the three scales A, B and C were calculated. For the study of the correlation (relationship) between the variables, the Pearson correlation index r was used.

RESULTS AND DISCUSSION

Reliability, factor, and cluster analysis

The internal consistency of the three-scale questionnaires was assessed on the basis of the Cronbach Alpha Index (a-Cronbach). The a-Cronbach index for Scale A "Citizens' statements related to Social and Cooperative Enterprises" was found to be equal with 0.654, for Scale B "Barriers to the Development of Social Entrepreneurship" was found to be equal to the high degree of reliability a-CrA = 0.881 and for scale C "The charm of a joint venture" was equal to the high degree of reliability a-CrA = 0.884. The reliability of a questionnaire increases with the Alpha Index. Many professional researchers require a reliably completed questionnaire to display Index a-Cr> 0.60 marker. In any case, a-Cr> 0.50 should be used to make the questionnaire reliable (Hejase and Hejase, 2013: 570). The KMO markers for the A, B and C scales were 0.694, 0.846 and 0.866, and those for the Bartlett sphericality were 292.38, 534.48 and 446.09 (p <0.001), respectively, which means that the Factor Analysis of variables is an appropriate statistical technique for extracting factors for all three scales.

Then, pre-export factors were proceeded to, using the maximum likelihood method. For each scale and topic, the "common part" (Communalities) was calculated, that is the percentage of variance of the topic, which is interpreted by the common factors. When the common part of a topic has a value close to zero, it means that common factors do not interpret a significant percentage of the variance, so this topic counts (states) something unique. This has not been observed in any of the three scales. Factor analysis identified 8 factors for scale A, 6 for scale B and 5 for scale C, which interpret 79.40, 77.78 and 85.20% of the total variance in the respective data sets.

The factors of scale A (or sub-scales of scale A)

Table 2. Grouping the variables of scale A "Citizens' statements related to Social and Cooperative Enterprises" in sub-scale (factors).

Sub-scale	Number of variable (loading)		
AA1Q: Supporting a Social Enterprise with cash or voluntary work:	-	A7	A9
	-	0.79	0.82
AA2: Supporting a social enterprise	-	A6	A13
	-	0.78	0.81
AA3: Contribution of the JV to the development and tackling of unemployment	A2	A11	A12
	0.64	0.75	0.59
AA4: Voluntary job offer	-	-	A3
	-	-	0.83
AA5: Sponsorship of various social events and privileged management by the state	-	A4	A14
	-	0.84	0.69
AA6: The Social Enterprise is a collective property company and acts democratically	-	A1	A10
	-	0.95	0.39
AA7: Social Enterprises must have adequate government funding	-	-	A5
	-	-	0.96
AA8: Supporting a social enterprise only with volunteer work	-	-	A8
	-	-	0.92

Table 3. Grouping the variables of scale B "Barriers to the Development of Social Entrepreneurship" in sub-scale (factors).

Sub-scale	Number of variable (loading)			
BB1: Lack of institutional framework and non-support of social entrepreneurship by state bodies	B3	B11	B12	B13
	0.56	0.75	0.75	0.69
BB2: The weaker relationship of collective action - economic benefit	B9	B10	-	-
	0.50	0.77	-	-
BB3: Indifference and fear for the new	B4	B5	-	-
	0.67	0.85	-	-
BB4: Lack of knowledge	B1	-	-	-
	0.86	-	-	-
BB5: The economic crisis and competition	B7	B8	-	-
	0.83	0.52	-	-
BB6: Lack of Funding	B2	-	-	-
	0.79	-	-	-

"Citizens' statements related to Social and Cooperative Enterprises" that support the theoretical dimension of the subject are shown in Table 2. The factors of scale B (or sub-scales of scale B) "Barriers to the Development of Social Entrepreneurship" that support the theoretical dimension of the subject are shown in Table 3. The factors of scale C (or sub-scales of scale C) "The charm of a collective enterprise" that support the theoretical

Table 4. Grouping the variables of scale C ''the charm of a collective enterprise'' in sub-scale (factors).

Sub-scale	Number of variable (loading)	
CC1: Sensitivity to environmental protection	C5	C6
	0.82	0.75
CC2: Collective action and provision of social work	C1	C2
	0.89	0.72
CC3: Creating a new culture with social sensitivity	C8	C9
	0.88	0.57
CC4: Democratic Administration and Social Responsibility	C3	C4
	0.89	0.58
CC5: Sensitivity towards the economic and social partners	C7	-
	0.81	-
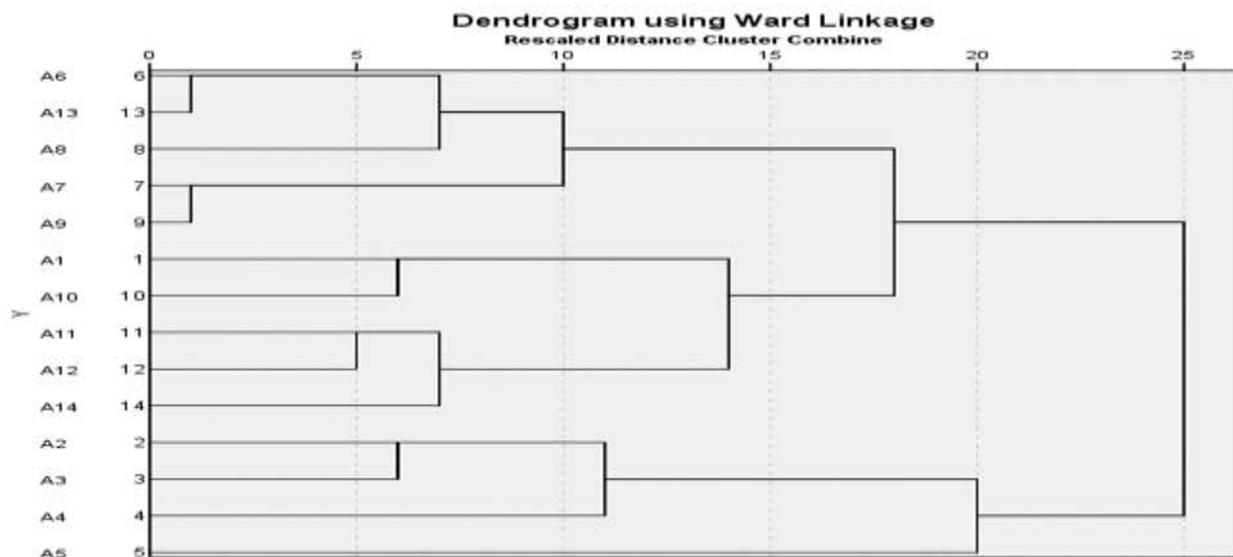
Figure 1. Grouping the topics of scale A with hierarchical cluster analysis.

dimension of the subject are shown in Table 4

In order to support the results of the factor analysis, we proceeded to apply the hierarchical cluster analysis method (Ward Linkage method and squared Euclidean Distance) to group the variables of the three scales.

From the dendrograms of the hierarchical cluster analysis, we observed that the 14 topics of scale A are grouped into 8 groups with the same topics, which are contained in the eight subscales identified by Factor Analysis (Table 2), except that the factor analysis integrates the A2 variable into third factor (load 0,644) while cluster analysis in the fourth factor (load 0.397). Moreover, the factor analysis assumes that the variables

A4 and A14 belong to the same factor (AA5) while the cluster analysis presents them as separate factors (Figure 1)

The 13 topics of scale B are grouped into 6 groups with the same topics as the six subscales identified by Factor Analysis, except that Factor Analysis integrates the B11 variable into the first factor (load 0.744) while Cluster Analysis in the sixth factor (load 0.463), and B3 in the first factor (load 0.563) while Cluster Analysis in the fourth factor (load 0.371) (Figure 2).

The 9 topics of scale C are grouped into 5 groups with the same topics contained in the five subscales determined by the factor analysis (Table 4), except that
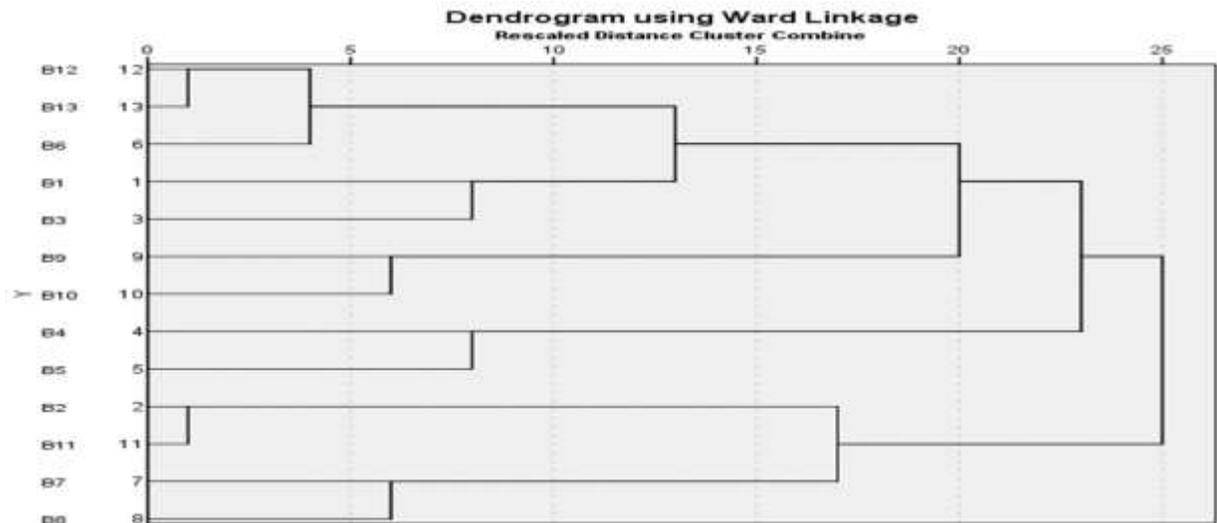
Dendrogram using Ward Linkage
Rescaled Distance Cluster Combine

Figure 2. Grouping the topics of scale B with hierarchical cluster analysis.

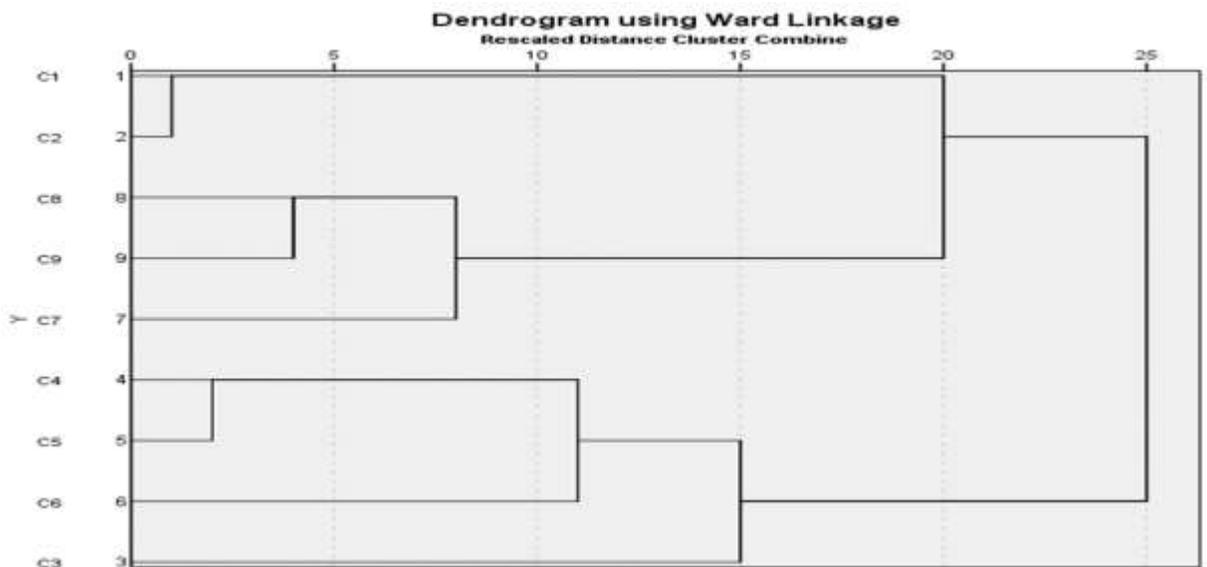**Dendrogram using Ward Linkage**
Rescaled Distance Cluster Combine

Figure 3. Grouping the topics of scale C with hierarchical cluster analysis

Factor Analysis encompasses the C4 variable in the fourth factor (load 0.578) while the Cluster Analysis on the first factor (load 0.401) (Figure 3).

To test whether the model of the 8 factors for the scale A, the model of the 6 factors for the scale B and the model of the 5 factors for the scale C, reproduce satisfactorily the observed correlations between the topics, the residual for each topic was calculated. The residual equals the difference between the observed correlation coefficient and the estimate from the corresponding model. The tables of reproduced correlation contained a relatively small percentage (10.98% for A, 3.85% for B and 0.00% for C) of the residuals with an absolute value greater than 0.10. This result indicates that the models of 8 factors for scale A, 6 for scale B and 5 for scale C reproduce relatively well the observed correlations between the topics.

Descriptive statistics and distribution of sub-scales

The results of factor analysis can be considered as part of a group of topics. Based on those topics that are part of each factor the researchers created eight subscales for scale A, six sub-scales for scale B and five sub-scales for scale C.

Every scale A can be evaluated at the eight sub-scales,

Table 5. Mean value, standard deviation, standard error and median for the eight sub scales of the scale A.

A/A: sub-scales	Mean value	Standard error	Standard deviation	Median
AA1: Supporting a SCE with cash or voluntary work	3.014	0.071	0.738	3.000
AA2: Supporting a SCE by any means	3.752	0.068	0.705	4.000
AA3: Contribution of the SCE to the development and tackling of unemployment	3.573	0.051	0.524	3.667
AA4: Voluntary work offer	2.804	0.091	0.936	3.000
AA5: The SCE are sponsoring and must be privileged by the state	3.266	0.068	0.698	3.500
AA6: SCE are collective property companies and act democratically	3.234	0.054	0.564	3.000
AA7: SCE must be adequately funded by the State	2.551	0.083	0.86	2.000
AA8: Supporting a SCE only with volunteer work	3.701	0.087	0.903	4.000

considering mean value of the initial responses for the initial topics. The Descriptive Statistics (mean value, Standard error, Standard deviation, and Median) for those eight factors (sub-scales-factors are shown in Table 5).

The results of the factor analysis can be considered as indicative of a grouping of the topics. On the basis of the topics involved in each factor, we formed eight sub-scales (factors) for scale A, six for scale B and five for scale C.

Each topic of scale A is ranked in one of the eight sub-scales, each of which appears as the arithmetic mean of the topics that correspond to it. Descriptive statistics (mean, standard error, standard deviation and median) for the distributions of these eight indices (factors) are presented on Table 5. The frequency curve for all the eight indices is almost the normal distribution curve except the one from factor AA8 that is a bit asymmetry left (Figure 4).

Each topic of scale B is ranked in one of the six sub-scales, each of which appears as the arithmetic mean of the topics that correspond to it. Descriptive statistics (mean, standard error, standard deviation and median) for the distributions of these six indices (factors) are shown in Table 6. The frequency curve for all the eight indices is almost the normal distribution curve (Figure 5).

Each topic of scale C is ranked in one of the five sub-scales, each of which appears as the arithmetic mean of the topics that correspond to it. Descriptive statistics (mean, standard error, standard deviation and median) for the distributions of these five indices (factors) are shown in Table 7. The frequency curve for all the eight indices is almost the normal distribution curve with slight asymmetry to the left (Figure 6).

Analysis of variance (ANOVA)

In order to test the existence of differences in the categories (groups) of the sub-scales (dependent variables) of the scales A, B and C, which are formed with independent variables, the social, educational and income characteristics of the citizens, the method of simple variance analysis (one-way ANOVA) was used. In particular, the method studied the existence of significant differences between the mean values of the levels (groups) of sub-scales of the three scales defined by the independent variables: gender, age, profession, education, knowledge of the terms SSE and SCE, the way you know the terms SSE and SCE and family income. If the independent variable contained two levels (categories), the t statistic was used to test the existence of significant differences.

Analysis of variance of sub-scales of scale A "Citizens' statements related to Social and Cooperative Enterprises"

Significant differences in the level of 5% (p = 0.05) present the mean of the levels: 1) of the sub-scales: AA2, AA3 and AA8 with independent variables ''gender''; 2) of the sub-scale AA3 with independent variables ''age'' and 3) of the sub-scales: AA3 and AA5 with independent variables ''Educational level''.

Analysis of variance of the sub-scales of scale B "Barriers to the Development of Social Entrepreneurship"

Significant differences in the level of 5% (p = 0.05) are presented the mean of the levels: 1) of the sub-scales BB1, BB2, BB3, BB5 and BB6 with independent variable the ''gender ''; 2) of the sub-scale BB5 with independent variable the ''age'' and 3) of the sub-scale BB2 with independent variable ''the way you know the terms social solidarity economy (SSE) and Social and Cooperative Enterprises (SCE).

Analysis of variance of the sub-scales of scale C "The charm of a collective enterprise"

Significant differences in the level of 5% (p = 0.05) are presented by mean levels: 1) of the sub-scales CC2 and CC5 with independent variable the ''gender''; 2) of the
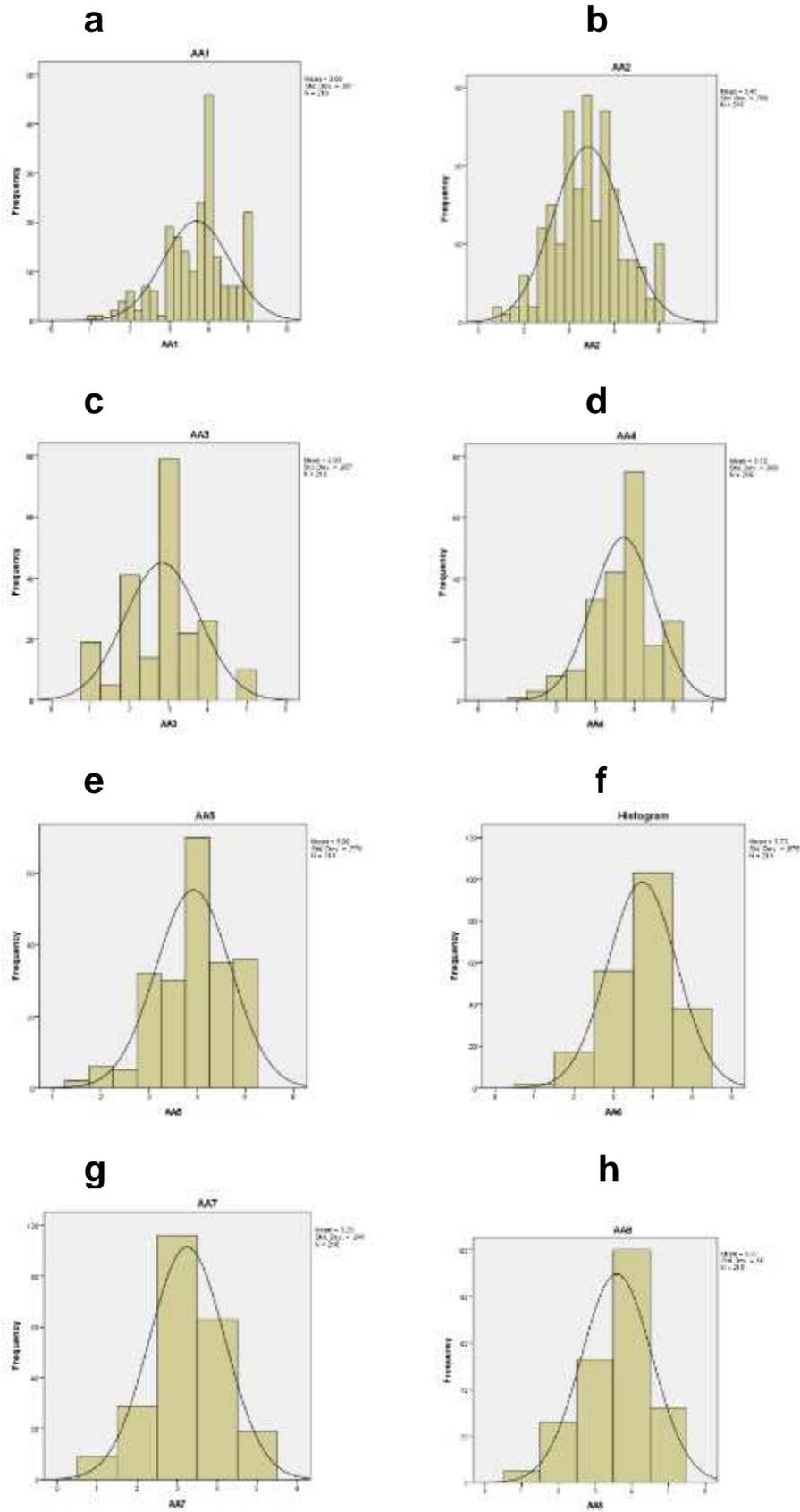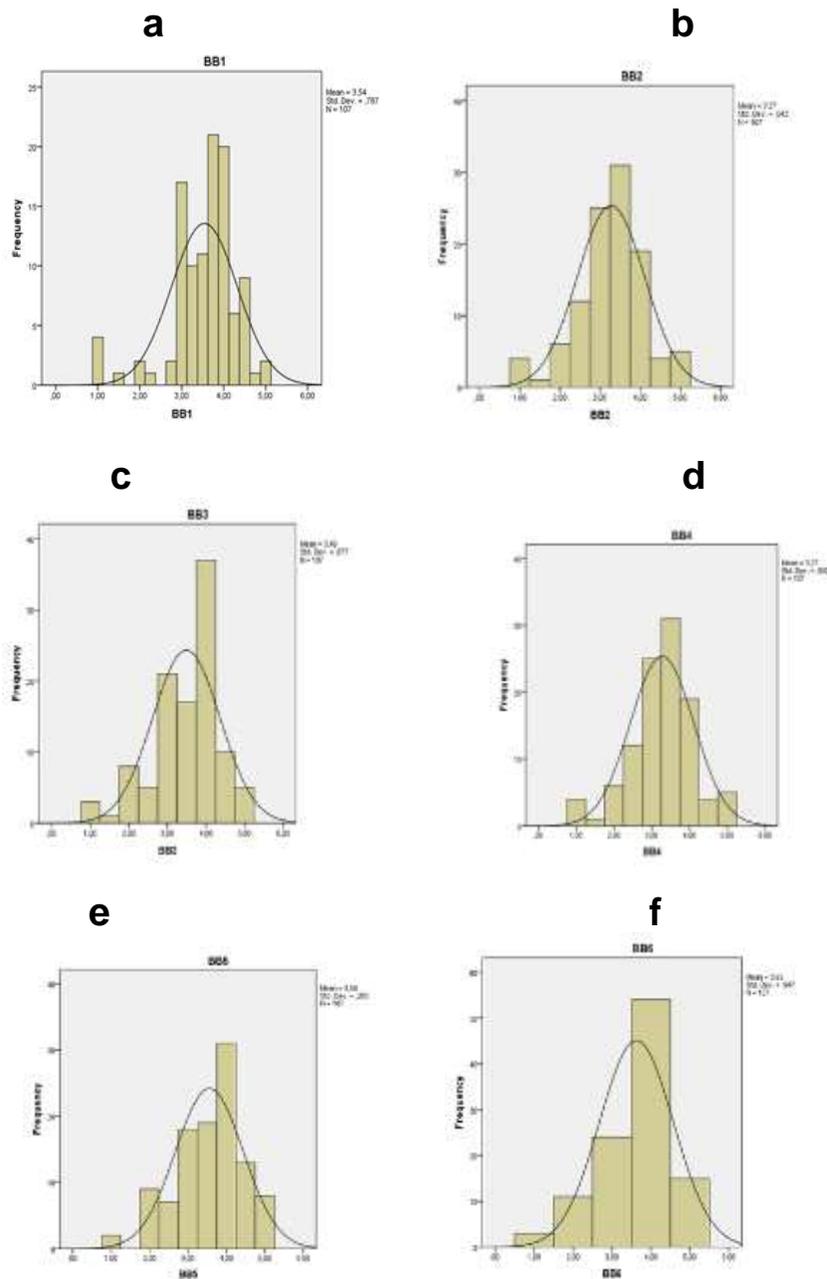
Figure 4. Histograms of the indices of the eight subscales of the scale A.

Table 6. Mean, standard deviation, standard error and median for the six subscales of the scale B.

A/A: Sub-scales	Mean	Standard error	Standard deviation	Median
BB1: Lack of institutional framework and non-support of SCE and SE by state bodies	3.540	0.076	0.787	3.750
BB2: The weak relationship of collective action - economic benefit	3.271	0.081	0.842	3.500
BB3: Indifference and fear of the new	3.491	0.085	0.877	3.500
BB4: Lack of knowledge	3.897	0.089	0.921	4.000
BB5: The economic crisis and the competition	3.556	0.085	0.883	3.500
BB6: Lack of Funding	3.626	0.092	0.947	4.000

Figure 5. Histograms of the indices of the eight subscales of the scale B.

Table 7. Mean, standard deviation, standard error and median for the five subscales of the scale C.

A/A: Sub-scale	Mean	Standard error	Standard deviation	Median
CC1:Sensitivity to environmental protection	3.579	0.079	0.813	3.500
CC2: Collective action and provision of social work	3.766	0.067	0.698	4.000
CC3: Creating a new culture with social sensitivity	3.701	0.083	0.860	4.000
CC4: Democratic administration and social responsibility	3.556	0.078	0.811	3.500
CC5: Sensitivity to the economic and social partners	3.523	0.091	0.945	4.000

a

b

c

d

e
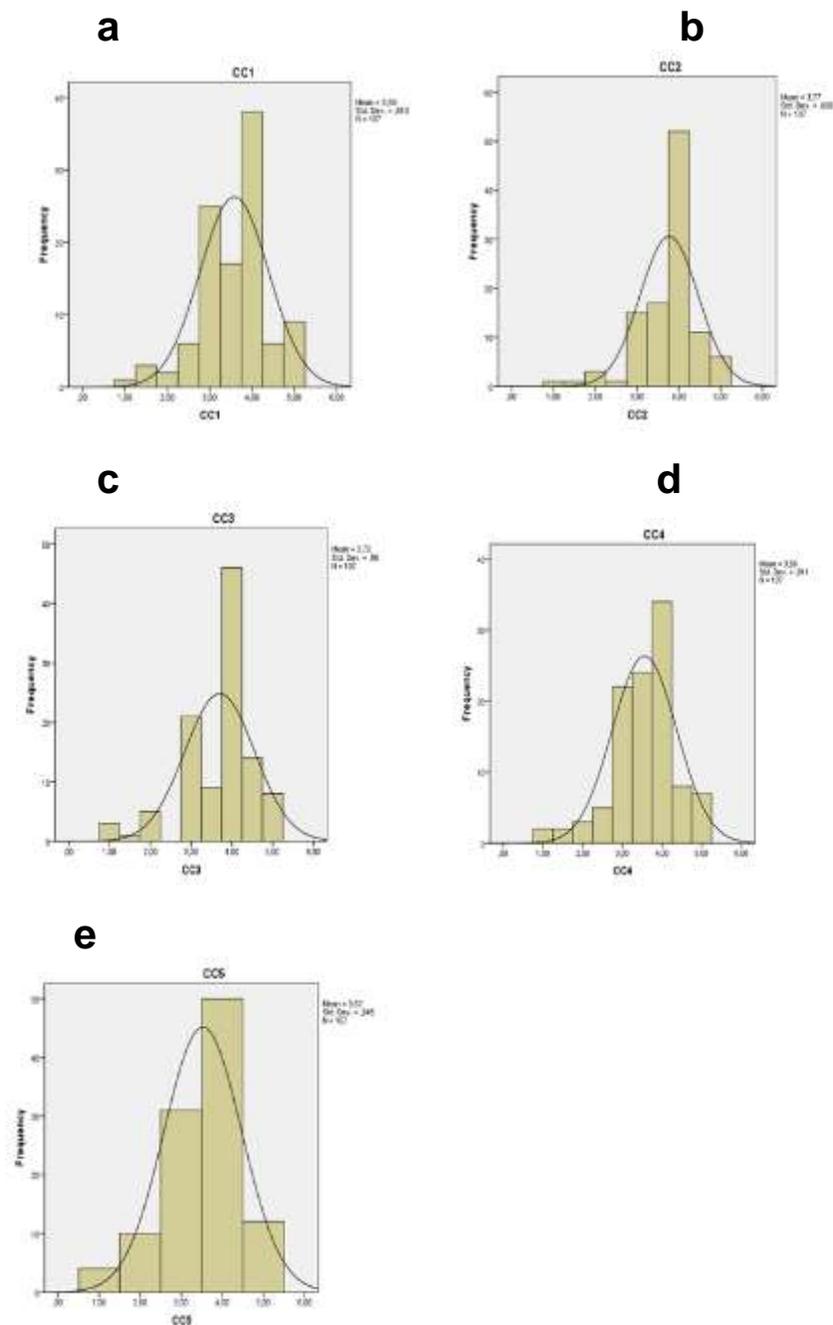
Figure 6. Histograms of the indices of the eight subscales of the scale.

sub-scale CC2 with independent variable the ''Knowledge of the terms social solidarity economy (SSE) and Social and Cooperative Enterprises (SCE)'' and 3) of the sub-scale CC4 with independent variable ''Family income''.

Correlation coefficients

Correlation coefficients for the sub-scales of scale A "Citizens' statements related to Social and Cooperative Enterprises"

For the study of the correlation between the variables of scale A, the Pearson correlation index **r** was used. Significant correlation at p = 0.01 presents:

1. The sub-scale "AA1: Supporting a SCE with cash or voluntary work" with the sub-scales: AA2 (r=0.437), AA3 (r=0.353), AA6 (r=0.310) and AA8 (r=0.318).
2. The sub-scale "AA2: Supporting a SCE by any means" with the sub-scales: AA3 (r=0.384), AA6 (r=0.206) and AA3 (r=0.401).
3. The sub-scale "AA3: Contribution of the SCE to the development and tackling of unemployment" with the sub-scales: AA4 (r=0.206), AA5 (r=0.215) and AA6 (r=0.203).

Correlation coefficients for the sub-scales of scale B "Barriers to the Development of Social Entrepreneurship"

For the study of the correlation between the variables of scale B, the Pearson correlation index **r** was used. Significant correlation at p = 0.01 presents:

1. The sub-scale "BB1: Lack of institutional framework and non-support of SCE and SE by state bodies" with the sub-scales: BB2 (r=0.523), BB3 (r=0.479), BB4 (r=0.452), BB5 (r=0.514) and BB6 (r=0.523).
2. The sub-scale "BB2: The weak relationship of collective action - economic benefit" with the sub-scales: BB3 (r=0.352), BB4 (r=0.383), BB5 (r=0.477) and BB6 (r=0.253).
3. The sub-scale "BB3: Indifference and fear of the new" with the sub-scales: BB4 (r=0.244), BB5 (r=0.439) andBB6 (r=0.320).
4. The sub-scale "BB4: Lack of knowledge" with the sub-scales: BB5 (r=0.309) and BB6 (r=0.377)
5. The sub-scale "BB5: The economic crisis and the competition" with the sub-scale: BB6 (r=0.426).

Correlation coefficients for the sub-scales of scale C "The charm of a collective enterprise"

For the study of the correlation between the variables of scale C, the Pearson correlation index **r** was used.

Significant correlation at p = 0.01 presents:

1. The sub-scale "CC1: Sensitivity to environmental protection" with the sub-scales: CC2 (r=0.486), CC3 (r=0.560), CC4 (r=0.598) and CC5 (r=0.486).
2. The sub-scale "CC2: Collective action and provision of social work" with the sub-scales: CC3 (r=0.582), CC4 (r=0.523) and CC5 (r=0.509).

3. The sub-scale "CC3: Creating a new culture with social sensitivity" with the sub-scales: CC4 (r=0.565) and CC5 (r=0.600).
4. The sub-scales "CC4: Democratic administration and social responsibility" with the sub-scale: CC5 (r=0.577).

Conclusions

The present work dealt with three main components: a) the citizens' statements related to Social and Cooperative Enterprises (SCE); b) the barriers to the development of Social Entrepreneurship (SE); and c) the charm of a collective enterprise.

For the scale of topics (questionnaire) of each component the reliability analysis showed strong (a-Cr> 0.650) to very strong (a-Cr> 0.880) internal consistency of the questionnaires and then applied the factor analysis, which is a basic tool for checking the validity of a conceptual construction of a questionnaire when it adapts to another language.

Factor analysis identified 8 factors for scale A, 6 for scale B and 5 for scale C, which interpret 79.40, 77.78 and 85.20% of the total variance in the respective data sets. The same results resulted both in the hierarchical cluster analysis method for the grouping of the variables of the three scales and in the residuals method for each topic.

The variance analysis (ANOVA) showed that, in the grouped Citizens' statements related to Social and Cooperative Enterprises (SCE) (factors of scale A) most important can be considered the: 1) AA1: Supporting a SCE with cash or voluntary work; 2) AA4: Voluntary work offer; 3) AA6: SCE are collective property companies and act democratically and 4) AA7: SCE must be adequately funded by the State, because in any of the independent (categorical) variables gender, age, profession, education, knowledge of the terms SSE and SCE, the way you know the terms SSE and SCE and family income, the means of the levels do not differ between them.

In the grouped barriers to the Development of the Social Entrepreneurship (factors of scale B) most important can be considered the "BB4: Lack of knowledge", because in any of the independent (categorical) variables the means of the levels do not differ between them.

In the grouped charm of a collective enterprise (factors of scale C) most important can be considered the: 1)

CC1: Sensitivity to environmental protection and 2) CC3: Creating a new culture with social sensitivity, because in any of the independent (categorical) variables the means of the levels do not differ between them.

The findings were critical and had academic interest. Also recently it is a major thought that solidarity economy is of great importance for the modern economy and can boost small local cooperatives and businesses into a greater scale on the country or even abroad. Although it needs better information for the citizens and better legal frame.

The next step of the present research is the study on the organization and economic efficiency of social cooperative enterprises

CONFLICT OF INTERESTS

The authors declare that they have no conflict of interest.

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