Professor Dan POPESCU, PhD
E-mail:dan.popescu@man.ase.ro
Valentina NICOLAE, PhD
E-mail: florina.valentina@gmail.com
Associate Professor Cristina STATE, PhD
E-mail: cristina.state@man.ase.ro
Ioana-Maria PAVEL, PhD Student
E-mail: iioanapavel@yahoo.com
Alina DINU, PhD Student
The Bucharest University of Economic Studies

EMPIRICAL STUDY ON IDENTIFYING COLLABORATIVE PRACTICES IN LOCAL COMMUNITIES

Abstract. *Our scientific approach addresses the issue of the economic collaboration of a community respectively the social economy enterprise. Our motivation is due to the profound transformations through which socio-economic activities pass over the last quarter of a century, more emphasized than ever by the particularities of the digital age. Social economy enterprises are also the subject to permanent adaptation to environmental conditions. Following the continuity of this process it was inevitable to avoid the following question, which has become the* ***main objective*** *of our paper: in an era where almost all processes and systems are digitized, leading to an increase in individualism, there still is availability for collaboration and if so, which are its defining factors? To answer this question we have initiated an exploratory analysis that allowed us to identify a number of defining factors of cooperation, each of them representing as many collaborative practices experienced in local communities. Analysis of data obtained as a result of the survey, conducted via questionnaire, was performed using IBM SPSS application. Interpretation of results is achieved by using optimal scaling technique known as* ***cat****egorical* ***p****rincipal* ***c****omponent* ***a****nalysis, CATPCA.*

Keywords: *exploratory analysis, community, collaborative economy, social economy enterprise, social innovation*

JEL Classification:C10, J29, L31, M14

Introduction

In this paper we propose to identify a number of factors that define the collaborative side of individuals at a time in a certain space (family, neighbourhood, school, social economy enterprise etc.) mentioning that each of these factors representing specific *collaborative practices* of local communities.

Being collaborative means to collaborate with others to contribute performing an action(http://www.larousse.fr/dictionnaires/francais/collaboratif/10910394#UoKqTWx5iFcmzV4D.99, accessed 27.06.2017). It is almost universally accepted idea that the social economy, known as the "*solidarity economy*", was developed to meet specific needs (economic, social or environmental) appeared in local communities. Social economy enterprises holding the role of integrator of available sources and resources, to achieve a participatory and inclusive community, thus being the main actors implementing new models of *collaborative economy*. Economy is always, collaborative. The existence of rural communities, usually small sized, and also their high share recorded until about two centuries ago, favoured *collaborative economy*, forcing communities to self-organize. Exodus of residents from village to city, favoured the emergence and development of industry, has created new forms of production and work organization that led, over time, to the emergence of new behaviours, new daily needs and, therefore, to tilt the balance from *collective* to *individual*. Analysis of data provided by the National Institute of Statistics, for the period between 2002-2015 (figure 1) indicates that, in Romania, the share of urban population exceeds the rural population and, with minor variations, this trend remains constant in time (http://www.statistici.insse.ro/shop/index.jsp?Page=tempo2&lang=en&context=10,accessed 01.08.2017).

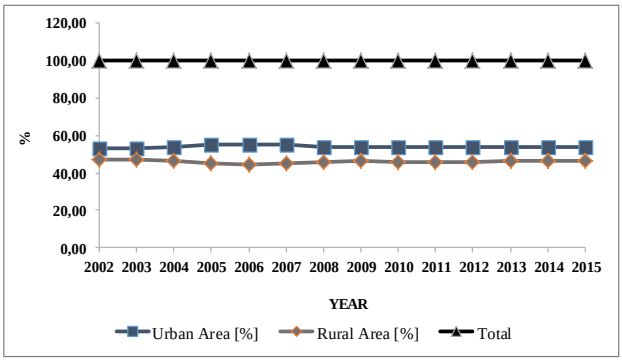


Figure 1. Resident population in Romania, by areas of residence
Source: National Institute of Statistics(http://www.statistici.insse.ro/)

The unprecedented development of technologies, favoured the emergence of micro-controllers, optoelectronic, liquid crystals, cold plasma technology, etc., allowed the expansion of mobile communications over very long distances (including extra-terrestrial), the miniaturization of computers, smart software appearance, thus facilitating the exchange of information. Progress generated by these discoveries place in a new light the *collaborative economy*. The few studies published on the subject, recognize the *collaborative economy* as a socio-economic system of production developing in the digital environment which involves collaboration

between large networked groups, facilitated by the technical infrastructure of the Internet. We consider that the most illustrative examples of collaborative activities in the digital environment are Linux, Wikipedia platform, all forms of Open Office and the newest expansion of Cloud Computing Technology. In this logic, *collaborative work* is no more structured according to traditional models of hierarchical organization, but on the basis of new working patterns, possibly integrated into a business concept, where most people work together through information technology, including Internet platforms. The new informatics instruments facilitate maximization of creativity and work efficiency of a dispersed group of people. It also natural that new models and collaborative practices complementing the "traditional" ones, so raising the interest of theoreticians and practitioners which analysing this phenomenon. In this note we consider our work, through the information that we provide to the public, contributing at the substantiation of research in *collaborative economy* field.

The interest in particular aspects concerning the cooperation of individuals,is mainly motivated by the capability to collaborate and the collaboration, thusleading to the *strengthening the trust capital* with favourable long-term consequences in terms of *responsible development of local communities*.

2. Background and related work

The values unanimously recognized and promoted by social economy enterprises among which highlights by its specificity (solidarity, responsibility, communion of interests, free adhesion, voluntary and democratic control of members) all are starting points for creating the formal framework of ***collaborative economy*** in a given space.

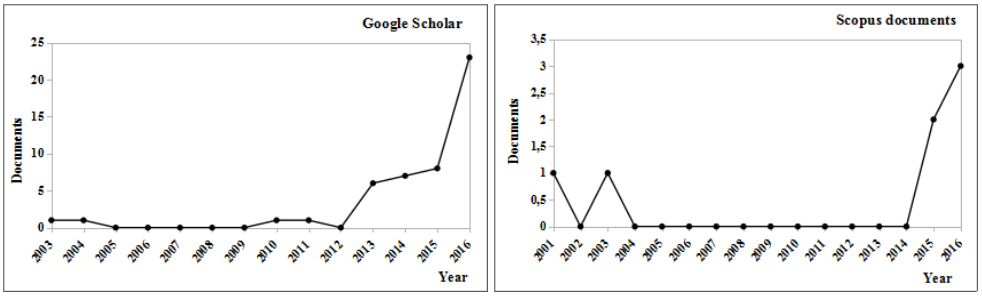
Starting from the concept of *collaboration* we can define the ***collaborative economy*** as a socio-economic system built on the shared use of the resources of a community at a time. This system comprises, in Matofska vision, creation, production, distribution, consumption (in common) both, of goods and services by individuals or organizations(http://www.thepeoplewhoshare.com/blog/what-is-the-sharing-economy/,accessed 19.07.2017).

Since almost two thousand years there have been various forms of association (economical, political or administrative) that attest the collaborative economy. ***Working together*** in these forms of local communities are held according to unwritten norms, known under various names such as "customary land" or "the tradition" and followed by the entire community. The role of this norms were intended to regulate relationship between people on social life and which involved the production and distribution of economic goods but also how to help each other in special situations occurring during the life of community residents. According to the some authors rural communities bear a strong component of identity, being above all a ***community institution***, the community itself. All decisions that regulate economic activity are subsumed the participatory democracy, where all households have voting rights through a representative (Petrescu, 2013, p. 75). Through its specificity, "the village community" is a form of self-government with activities and tasks falling within the social economy" (Petrescu, 2013, p. 86). The share of joint

possessions and rural communities in 2000 was 41% of Romanian social economy entities (Barna, 2014, p. 18). Moreover, speaking about the role of traditional entities (pastoral) in agricultural policy, Sutcliffe stated *composesorates* as historical form of communitarian organisation typical for Transilvania and the North of Romania owned and managing pastures and forests. Rural communities are presented as specific community organizations for mountainous regions of Wallachia and Moldova. The same paper notes as a form of public property ***pastures of grazing land*** administered by municipalities. Lawrence and Szabo, notifies the influence it can exercise the form of ownership on the land and forests which include *composesorates* and rural communities, regarding the management of these properties (Lawrence and Szabo, 2005). Turnock and Lawrence considers that preserving the forms of economic organization based on cooperation by owners (through *composesorates*) can lead on the one hand to avoid the risks posed by excessive fragmentation in small areas of forest owned by single persons and on the other hand to preserve the forest as a complex and valuable natural resources. Thus, local interests can be harmonized with those personal concerning to obtain incomes for consumption, poverty reduction, investments and zonal development (Turnock and Lawrence, 2007).The ForestCode in 2008, lists "*The communities of freeholders in condominium, communities concerning the freeholders in individuals, undivided communities concerning the yeoman, composesorates, forests frontier, forests land records, political municipalities, other communities and associative forms with different names existing prior to 1948*" as part of Romania's historic treasures (Lambru, Vamesu and Kivu, 2010, p. 54).

Although, as with demonstrated above, there are clear forms of economic organization certifying that the economy may be par excellence ***collaborative***, the literature is very poor in studies on the subject, suggesting us that the research is just at the beginning. Thus, a first search on Google Scholar portal by the expression"collaborative economy" was returned 1410 results. After the first filter of the results, using the criterion of relevance the searched expression in title content of works, 94 works have resulted; in a second filter we removed the citations and were returned 48 results / documents (figure 2).

To identify the truly relevant work in the field - ***collaborative economy*** - we have continued searching in Scopus database, which is known to be a largest database of peer-reviewed literature. This time in a first search 535 documents were returned; following the procedure for filtering search results, to which we added the selection of documents provided in our field of interest - *Business, Management and Accounting* - were returned 7 relevant documents (Table 1).



a) Scholar Google - 48 documents b) Scopus -7 documents

Figure 2. Collaborative economy - Studies indexed on Google Scholar and Scopus database, in business economic environment.
Source: Documentary analysis conducted by authors

In both cases of search, we have not identified any Romanian work dealing with this topic of study, which place us in the position of pathfinder in our scientific approach related to *improve the management of social economy enterprises*, that there are nothing at all but particular entities of collaborative economy.

The economy, as deeply human activity, is essentially collaborative and works that we have mentioned confirms our affirmations. Also, the entities specific to the collaborative economy have existed for a very long time, presenting a series of peculiarities involved in the space and the time of their existence and manifestation. However, in the present time seems barely discovers the ***collaborative economy***; only in this way we can explain the low number of papers identified on the subject. Considering the profound transformations undertaken in the last quarter century in economic, technological, social activities etc. strongly influenced by the IT&C sector development and transfer of a large part of the population from rural to large urban areas, we understand and accept more easily the need of modern human to reinvent the ***collaborative economy*** by creating ***new forms of cooperation***, such as (see table 1): sustainable consumption and production systems; crowd-funding, crypto-currency (or new "financial engineers"), market sharing, alliances and outsourcing, all wearing the same fingerprint. The main ideas and research directions arising from lecture the documents that approach collaborative economy which we identified in the literature, are summarized in table 1.

Table 1. Relevant peer-reviewed literature indexed in Scopus database regarding to the *collaborative economy*

Authors/Title	Novelty in collaborative economy approach
1. Cohen B., Muñoz P., *Sharing cities and sustainable consumption and production: towards an integrated framework,* (2016)	This paper aims to provide a picture of sustainable consumption and production (SCP) in cities by scrutinizing the activities of the ***collaborative economy***. The authors identified five categories of criteria imposed in accordance to ***collaborative economy*** (dependence on place and significant relationship for SCP): energy, food, production of goods, mobility / transport and sharing space.
2. Roig Hernando J., *Crowdfunding: The collaborative economy for channelling institutional and household savings,* (2016)	***Crowdfunding*** conceptualize "crowd" as a great ***on-line community*** that can give financial contributions to a particular cause. The study argues that the introduction of this innovative product is the result of using the crisis to improve financial markets through innovation and entrepreneurship.
3. Weber T.A., *Product Pricing in a Peer-to-Peer Economy,* (2016)	The study introduces a model for analysing the prices of products and possibility to choose the consumers with and without a ***sharing market***. It is quantified the impact of ***economy***, type ***peer-to-peer*** concerning the demand of property, product price, and outcomes of all participants, including consumer surplus, profit and welfare.
4. De Filippi P., *Translating Commons-Based Peer Production Values into Metrics: Toward Commons-Based Cryptocurrencies,* (2015)	The study starts from the observation that there is not a system of appreciation of property (other than price) obtained by ***joint contribution***, able to understand and measure the value generated by products obtained in common. The solution appears at the intersection of three competing value systems, which, according to the authors, helps better understanding the global value of goods obtained in common: *functional value, social value* and *ideological values* that the community wants to promote. Here, the role ***crypto-currency*** (digital currency) is to create an alternative value assessment of assets derived from joint contribution.
5. Bonvalot H., *A bright future for the voluntary sector: A summary of La Fonda's "Building 2020 together" initiative,* (2015)	The study approach the voluntary organizations activity at a crossroads, in a society with a tendency to fragmentation of institutional models, fluidization of social relationships and empathy, in a world in crisis. Significant opportunities may occur by creating new models of partnership, promoting links between global and local, or finding a place in the socio-economic logics emerging, type of ***collaborative economy*** or ***circular economy***. The role of ***voluntary organizations*** in the transition phase, is actively one, of ***building the future*** and not of mercy.

6. Suarez-Villa L., Walrod W. *The collaborative economy of biotechnology: Alliances,outsourcing and R&D* (2003)	The context of ***cooperation*** in biotechnology, is calculated with the need to support continuous innovation. There are considered as important two ways of cooperation: alliances and outsourcing. Alliances with pharmaceutical companies and outsourcing had a better influential in supporting biotechnology research and development.
7. Basu R., *New criteria of performance management: A transition from enterprise to collaborative supply chain,*(2001)	The emergence of a network of manufacturing and outsourcing worldwide and transparency of information in real time, via the Internet, redefine the management of business performance. New values are emerging to compete in the ***collaborative economy*** of suppliers, manufacturers, distributors and customers. The challenge is how to optimize the improvement measures. The paper suggests a performance management process in six phases, to meet the new criteria and convert challenges into opportunities.

Source: Documentary analysis conducted by authors

2. Objective, working assumptions and work methodology

We were accustomed to look at the social economy as an economic sector detached so the public and private sectors, and social economy enterprises as hybrid entities resulting from the concrete needs expressed by the community at a time. In fact, social economy enterprises tend to become stable and responsible entities that assume an important role in the community, respective that of social integrator of the two economic sectors: public and private. To fulfil their mission these are both catalyst and integrator of sources and resources of the community at a time, collaboration with social partners and the community to which it is addressed being a key factor of success.

Collaborativity as is treated in this paper is described as a sum of factors related to the capacity and ability of individuals to *work together*, to *cooperate*, and to *participate actively in pursuit of common goals*. This includes economic and social activities, allowing as by the results obtained to define themselves as people and to gain notoriety.

Our curiosity regarding the availability of individuals to collaborate was aroused by a series of recent events that put a different light the paradigm *individually - collectively*, such as collective accidents affecting a large number of people, the problems created by the need for education or access to health services in disadvantaged areas or natural disaster, crisis of refugees and so on.In this context, the ***objective*** we have proposed was to realize an exploratory analysis through which we try to identify the defining factors of individuals ***collaboration*** in a given space; such, we will have the opportunity to capture the potential of individuals to work together to achieve common or individual goals.

Assuming that human, like being eminently social, is apt to be involved in his own will, in carrying out common activities, economic and/or social, we intend to identify a number of *factors* that *characterize* ***collaborativity*** of a communities

(family, school, group of friends, social economy organization etc.).***Collaborativity*** as we try to define in this study is characterized by the presence of 7 factors which are, in various shades, both the availability of individuals to become involved in community activities and, as well as, the consequences it entails participation in these activities. Each factor is measured through some categorical dichotomous items (table 3) that comprise the attitude of participants in the study towards a very precise aspect of their involvement in community. For this purpose, the participants in the study were asked to answer the following questions, each of the questions being associated a factor, as follows:

Question	**Associated factor**
1. "In your opinion, the community is entitled, at a time to receive Your support in order to grow?"	*Support*
2. "Do you think that your achievements are due equally to the community where you live?"	*Achievements*
3. "Have you ever participated in voluntary work, for community benefit?"	*Volunteering*
4. "Assuming that you were asked today to support the community in which you live, how do you act?"	*Action*
5. "Have you ever received the results of voluntary work submitted by other people?"	*Beneficiary*
6. "Today, you are willing to work for your community?"	*Availability*
7. "Do you think that your achievements have a positive influence on the community where you live?"	*Influence*

Working methodology consists of a survey that is conducted through questionnaire, is summarized in table 2.

Analysis of data collected by the questionnaire is conducted through optimal scaling technique known as categorical principal component analysis, CATPCA (http://www.ibm.com/analytics/us/en/technology/spss/**,**accessed 19.02. 2017).

Table 2. Research Methodology

Type of research:	Quantitative research ;
Research method:	Survey;
Primary data collection instrument:	Questionnaire self-administrate and distributed online;
Measurement instrument:	Nominal and Ordinal scale measurement;
Sampling method:	Mixed methods; snowball method prevails;
Sample size:	231 subjects;
Target group:	Romanians and Romanian Diaspora;
Place of deployment:	Romania;
The method of analysis:	Optimal scaling technique - categorical principal components analysis;
Data collection period:	Research in progress, questionnaire is published online at http://www.goo.gl/forms/eUWK17XLLQ;

Data processing : IBM SPSS Application;

Source: Synthesis performed by authors

The procedure simultaneously quantifies categorical variables and reduces the dimensionality of the data. By reducing the dimensionality we will interpret few uncorrelated components that represent most of the information found in the original variables instead of a large number of variables(http://www.ibm.com/support/knowledgecenter/SSLVMB_20.0.0/com.ibm.spss.statistics.help/idh_cpca.htm, accessed on 08.11.2016). By categorical principal components analysis, non-linear relationships between variables can be modelled (MeulmanandHeiser, 2001, p. 107).

We opted for using this technique considering the measurement level of the variables that fall naturally, at non-parametric level (Opariuc-Dan, 2012, p. 105). The method consists in extraction from the latent factors common to a set of variables and identifies how variables can explain the latent factor. Each of the variables investigated shows a own variation and a common variance. Initially, these variables are presented in the form of independent factors which, based on common variances can be reduced up to identify a minimum number of factors that may explain variances of original variables. The discretisation of variables is achieved by transforming in ranks (Opariuc-Dan, 2012, p. 111). The criterion used by categorical principal components analysis for quantifying the observed data, is that of large correlations that must submit objects/components scores, with each of the quantified variables, the solution being considered good insofar as this criterion is fulfilled (MeulmanandHeiser, 2001, p. 119).

The characteristics of studied variables are presented in Table 3.

Table 3. Metadata table

Label Name	Level	Dummy Code	Scope
Residence	Nominal	1.Muntenia; 2. Moldova; 3.Transilvania; 4. Dobrogea 5. Diaspora	Demographic, independent;
Gender B	Nominal	1 Male; 2 Female	Demographic, independent
Support	Nominal	1. Yes; 2. No; 3. I don’t know/I never thought;	Argumentative, possible dependent
Achievements	Nominal	1. Yes; 2. No; 3. I don’t know/I never thought;	Argumentative, possible dependent
Volunteering	Nominal	1. Yes; 2. No;	Argumentative, possible dependent
Beneficiary	Nominal	1. Yes; 2. No; 3. I don’t know;	Argumentative, possible dependent
Availability	Nominal	1. Yes; 2. No; 3. I prefer not to answer	Argumentative, possible dependent
Influence	Nominal	1. Yes; 2. No; 3. I don’t know/I never thought;	Argumentative, possible dependent

Action	Ordinal	1. I would engage without hesitation; 2. I just wonder why my involvement is needed; 3. I would first check the veracity of information; 4. I would let other people to get involved and only after that I would act; 5. Community can manage it self very well without me	Argumentative, possible dependent

Source: Synthesis performed by authors

Results

Interpretation of results following processing the data collected by the questionnaire is performed with IBM SPSS application, using optimal scaling method.

1. Basic statistical inventory is performed for the following category of variables: biological gender and residence (table 4).The analysis was performed on 231 subjects, of which 30 are excluded due to lack of data (cases with serial number from 1 to 30). The sample consists of 93 men (minimum range 1) and 138 women (maximum range 2). The subjects territorial distribution is presented in figure 3.

Table 4. Descriptive Statistics

	N	Range	Minimum	Maximum	Std. Deviation
Residence	231	4	1	5	1.075
Biological Gender	231	1	1	2	.491
Valid N (listwise)	231				

Source: Data processing, by authors, in SPSS

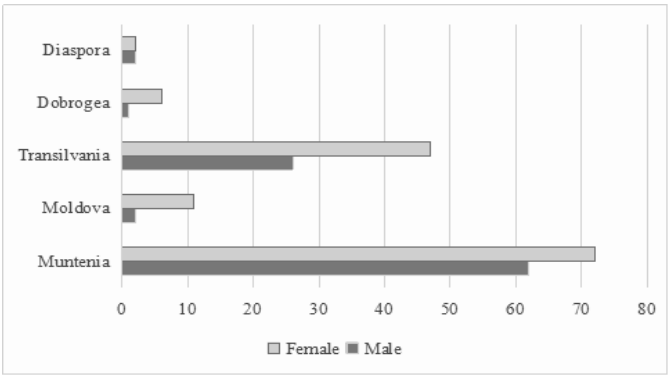


Figure 3. The territorial distribution of participants in the study
Source: Data processing, by authors, in SPSS

Descriptive statistics associated with each variable indicate us the variation of original scores for each individual variable, as follows: for the variables *Support*, *Achievements*, *Beneficiary*, *Availability*, *Influence*, original scores ranges from 0 to 3, for variable *Volunteering*, original score ranges from 1 to 2, and for variable *Action*, original scores ranges from 1 to 5.The scores represent the available options of answers at each question, as is defined in the metadata table.

Iteration history is shown in table 5. The solution was found after 18 iterations, when the convergence criterion has been reached, the increase becoming insignificant. Values of variance in the table 5 indicate also the total variance and quantity so that it increased between iterations.

Table 5. Iteration History

Iteration Number	Variance Accounted For		Loss		
	Total	Increase	Total	Centroid Coordinates	Restriction of Centroid to Vector Coordinates
0[a]	3.300834	.000007	10.699166	10.585477	.113689
18[b]	3.516199	.000007	10.483801	10.433794	.050007

a. Iteration 0 displays the statistics of the solution with all variables, except variables with optimal scaling level Multiple Nominal, treated as numerical.

b. The iteration process stopped because the convergence test value was reached.

Source: Data processing, by authors, in SPSS

According to the summary of bi-dimensional model first supposed dimension (**"*collaborativity*"**) is covered by all the 7 variable in the proportion of 33,77% and internal consistency could be treated as a proper (Cronbach Alpha = 0,673). We are making this assessment taking into account agreed values of Cronbach Alpha coefficient, as follows: the values situated around 0,90 are considered to be "excellent", the values around 0,80, "very good", while those in around 0,70, "adequate" (Popa, 2011, p. 4). The second dimension, the unknown is covered to an extent of 16,46%. In this case the variables have a poor internal consistency (Cronbach's alpha = 0,154), despite the fact that the value of the eigenvalue is over-unit (1,15); values obtained could lead us, ultimately, to reject the existence of the two dimensions while retaining only factors that have a good internal consistency and eigenvalue greater than one. However it can not be totally excluded the possibility of a third dimension, as long as the two dimensions only covers 50,23% of the variance (Meulman and Heiser, 2001, p. 110).

The resulted model can be assimilated to a one-dimensional model, corresponding of the 7 variables, whose latent factor assumed is **"*collaborativity*"**; model has an explanatory power of 33,77% and internal consistency considered appropriate. As a result of the normalization it results standardized scores of each category according to the normal distribution - Quantification.

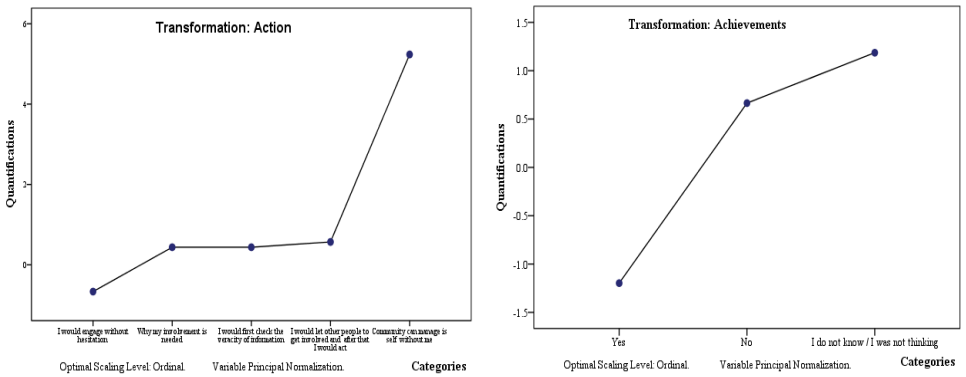


Figure 4. Evolution of variables after quantification.

Source: Data processing, by authors, in SPSS

The recorded answers for each category are situated at a certain standard deviation from the mean (e.g. for variable *Support*, responses ranging with Yes (1) are located on the left at 0,402 standard deviations of the average, the category No (2) at 2,48 standard deviations to the right media etc.).The question we ask ourselves, after normalization, refers to linearity of transformation and treatment applied of analysed data: can be treated the data as parametric? We have selected, in figure 4, two of the seven graphs processed that illustrate that, after normalization the transformation is non-linear, the variable can not be accepted as parametric, so it is reasonable to employ categorical principal components analysis for data (CATPCA).

Centroid coordinates (mean scores of objects in the same category) from table 10 are shown graphically in figure 5. We have selected for analysis, evolution of two of the seven variables involved in the study (*Action* and *Influence*).Means of centroid coordinates are relatively high (>0,10), consequential, the variables are relevant in the model analysis (Opariuc-Dan, 2012, p. 115).

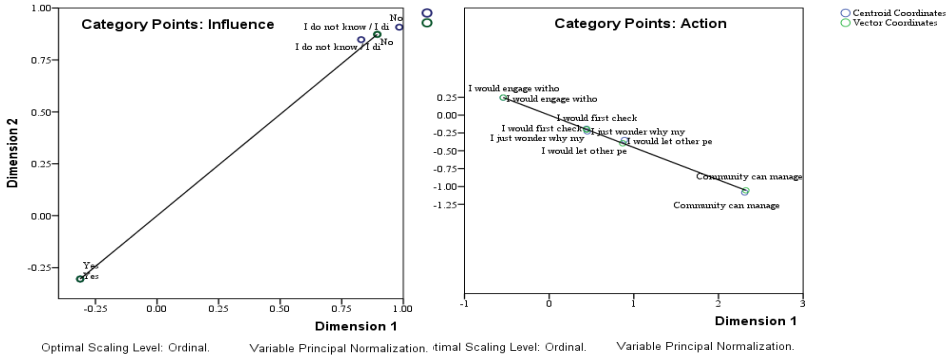


Figure 5. Centroid coordinates and projection of vectorial coordinates.

Source: Data processing, by authors, in SPSS

We also may observe, in figure 6 and in figure 7, that the variables register higher values for the coordinates of the first dimension, compared to the coordinate values of the second dimensions, excepting the variable *Achievements* who shows lower values for the coordinates of the first dimension. Analysing the total variance values for vector coordinates, we note that it distinguish the most important factors explaining the variance of criterion studied: **"*collaborativity*"**. They are, in descending order: *Achievements, Availability, Influence*, followed by *Action* and *Support*, and also *Volunteering* and *Beneficiary*. It is also explicable the role of these factors, to the extent that we understand that there are not simply factors in an analysis but concrete activities conducted in local communities by involving the subjects, participants in the study.

Eigenvalue value for each variable analysed explains the common variance. The highest value recorded for ***Eigenvalue*** is 2,130 and belongs to the Support variable, and the smallest value is 0,601 and belongs to the Influence variable. After transformation, the correlations changes its value, such emphasizing how has been optimized analysis. If, after optimization, the correlations are significantly reduced, method of transformation must be replaced, being inadequate. In our case, the values obtained after transformation were increased for the variable *Support* (2,364) and *Volunteer* (1,016) and decreased insignificantly for the other variables (eg 0,504 for the *Influence* variable).

The scatter dots associated with the two dimensions extracted are shown in figure 6. We may observe a number of subjects who are represented medium at the first dimensions and strong at the level of the second one (points moved to the top of the graph).Graphical representation of scatter point confirms that the first dimension is better represented compared to the second dimension, affirmation reinforced by the saturation factors values, ***component loadings***. Also, interpretation of results from figure 6 indicates us that the first dimension is relevant, as it recorded the largest saturation coefficients for five of the seven variables entered in the model. Two of the variables (*Influence* and *Achievements*) have recorded higher values of saturation coefficients for the second dimension.

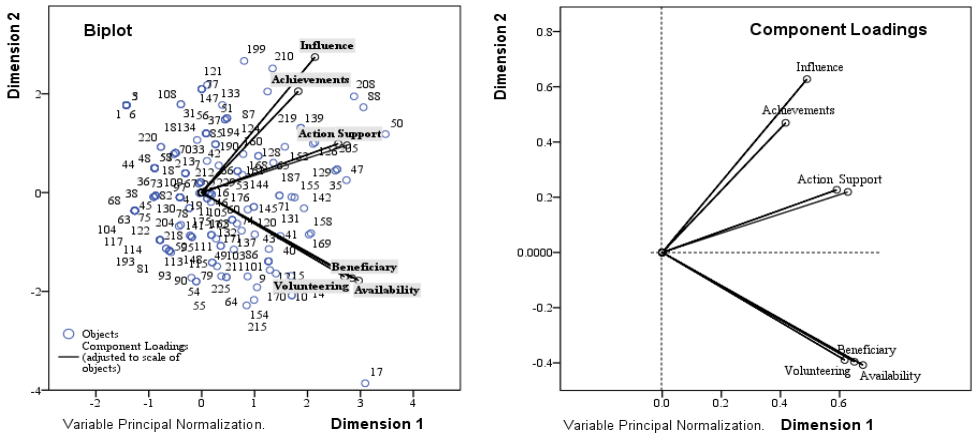


Figure 6. Scatter dots of scores associated with the two dimensions extracted

Figure 7. The coordinates of factors saturation

Source: Data processing, by authors, in SPSS

Figure 7 shows us a graphic representation of the coordinates of the 7 variables which define "***collaborativity***", how the variables are related to each other and how they are reported to each of the two dimensions. All variables register a positive saturation in factors for the first dimension, so we may deduct that there is a common factor that correlates positively with all variables. Also, the size of the 7 vectors indicates that the two dimensions largely explains variance for the variables analysed Also, the size of the 7 vectors indicates that the two dimensions largely explains variance for the variables analysed (Meulmanand Heiser, 2001, p. 114).

The second dimension divided the variables into three distinct groups as follows: **1.** a group consisting of variables *Achievements* (subjects who believe that their achievements are not due in equal measure the community in which they live) and *Influence* (subjects who believe that their achievements positively influences the community) who have high scores on the second dimension; **2.**a group consisting of variables *Action* (celerity with which the participants in the study are willing to support their community) and *Support* (subjects who finds rightful the request of the community to be supported to develop), which records large size at the first dimension and lower in the second; **3.**the group of variables *Beneficiary* (subjects who consider to have received the results of voluntary work submitted by others), *Availability*(subjects who are willing to work in the future for their community) and *Volunteering* (subjects who was involved, in the past, in volunteering), who have high scores on the first dimension and lower (negative) in the second. Also, in figure 7, there are two categories of vectors/variables that nuanced the size of *collaboration*: *The first category* of variables, grouped closely between them, representing variables associated positively - is case of the three distinct groups of variables described above, inside of which there is a very close association of variables (Lepădatu, 2013, p. 4) and, second category of orthogonal

variable, accounting for variables that are not associated (independent variables) - the case of variables from the first and third groups (*Achievements*, *Influence*are not associated with variables *Beneficiary*, *Availability*, *Volunteering*) (Linting et al., 2007, p. 351). The degree of variables association indicates us positioning of the participants in the survey towards the community and possible motivation for their participation in community activities.

Finally, residuals analysis (figure 8) allows us to appreciate the distance to which is situated each category of variable compared with normal regression (to exemplify we selected variables *Action* and *Influence*). Thus, in the case of the variable*Action* we note that low scores (1 - *I would engage without hesitation*) overestimate normal distribution, while high scores (5 - *Community can manage it self very well without me*) underestimates the normal distribution. Similarly, we note that low scores recorded for the variable *Influence* (1 - Yes) overestimate the normal distribution, while high scores (3 - Do not know / I never thought) underestimate. With reference to the normal distribution, we would have to record fewer subjects with low scores oriented answers and more subjects with high scores oriented answers, result that justifies the use of categorical analysis techniques type.

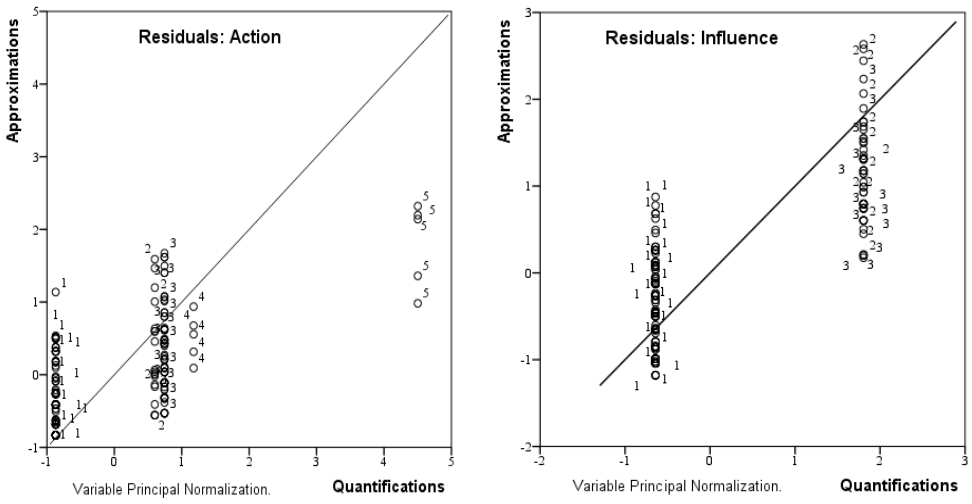


Figure 8. Residuals Analysis
Source: Data processing, by authors, in SPSS

Conclusions

The results of exploratory analyses that we made, allowed us to identify a minimum number of factors that define ***"collaborativity"***and *collaborative practices* existing in local communities (*volunteering* - as past actions, *support to the community* - as present, immediate action, *availability for volunteering* - as future action), but also the attitude manifested from the participants in the study toward the direct involvement

in community life.

After a first analysis of data, results that ***all seven factors selected are relevant to the proposed model***; ***collaboration/cooperation****can be seen in terms of availability for involvement in community life, to conduct specific tasks, with* ***consequences at collectivelylevel****(prosperity for members of community)****and at personal level****(self-realization and notoriety in and through community).*

Deepening the analysis, we could observed that ***there are associations between variables (factors) of the proposed model which places participants in the study in different positions towards the subject in question*** - **"*collaborativity*"**and ***collaborative practices*** *in local communities, as follows:*

1.*a first group* *of people rather individualists, who believe that self-realization and gained notoriety in the community has no connection with their involvement in community service activities, the more that could be, themselves, beneficiaries of such actions*;

2.*a second group* *of people who appreciate as important the support that can give for the community and also, the celerity with which it provides their support*;

3.*a third group* *of people, possibly oriented toward teamwork that considers important their association in order to support the community (even more, they act exactly as thinking). The common denominator of the three groups of subjects is the positive association of variables (how variables are closely grouped together). It should be noted that there is some degree of correlation between variables/factors that define the three groups of subjects*.

As we have mentioned, ***there are only few works addressing of collaborative economy***. Our researches performed on notoriety platforms (Google Scholar - 48 documents and Scopus - 7 documents) have returned an extremely small number of papers published worldwide in economics, business, management, which allows us to affirm that ***the field of research for this topic is empty***. Even so, we could not fail to notice that ***most existing works are focused on economic collaboration of virtual communities developed with the computing platforms and not on real and visible communities***.

It is worth mentioning that ***none of the work identified not belong to a Romanian author and/or does not have the field of deployment Romania*** *so apparently,* ***we can consider our work as pioneering one****, both for Romanian research and also worldwide*.

We believe that, *to get a proper relevance of the model that we have propose,* ***is appropriate to continue theoretical and applied research on economic collaboration of local communities***.

To get consistency, ***the model can be completed with the introduction of new factors in the analysis***(eg. *availability of association of personal property owned in order to achieve economic activities*) ***or simplifiedby excluding certain factors*** (eg. *exclusion of independent factors in order to improve the internal consistency of the model*) ***and a qualitative analysis that may nuances, confirm or refute the results of quantitative analysis***.

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