

## Social Economy Enterprise Type Honeycomb Network, Motor of Economic Growth in Local Romanian Communities

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**Abstract.** *In this work, I will present a new model of organization for enterprises in the social economy at the level of local communities. The main purpose of the research was to find an answer to a simple question, which became the research question: "humans are the only beings able to manage their socio-economic life efficiently, or does nature offer us better alternatives to the human model of management"? Looking around to the natural living systems for an answer to the question, I found some seemingly tiny creatures characterized by great solidarity. The behavior's rules of these creatures, strictly respected, appeared to be similar to the values promoted, in the human society by the social economy: solidarity, responsibility, communion of interests, autonomous management etc., reason for I was tempted to use their behavior as model for a new concept of social economy enterprises management. The main working assumption of the scientific research, validated in the past published work-papers, was focused on a series of issues concerning the lack of knowledge of social economy and its representative organizations in Romania, as well as the major "gaps" regarding the approach of organizing social economy enterprises at the level of local Romanian communities. This context has facilitated to prefigure a new conceptual model of social economy enterprises, adapted to local Romanian communities but not necessarily limited to this geographical area: social economy enterprise, type honeycomb network. This original and innovative model describes a socio-economic organization as a network of individuals and relationships that follows the pattern of the fractal organization of nature at all levels. The working methodology consists of a content analysis of the scientific literature and social network analysis tool Ucinet6 and Visualizer 2.2.*

**Keywords:** collaborative community; collaborative economy; exploratory analysis, honeycomb network, social innovation.

**JEL Codes:** L26, L31, O35, Q01

### 1. Introduction

This scientific approach was initiated with the aim to design a flexible socio-economic structure, adapted to the needs of the Romanian local communities, started from the premise that in a civilized society it is imperative to find a viable social economy sector, well-defined and actively involved in the community life. Known as "the third sector", "solidarity economy", or "non-profit sector", social economy has developed to meet some specific local, social, economic or environmental needs that are not covered by other economic sectors or, sometimes, are not included in the local authorities' agenda.

Social economy enterprises, as representativeness entities of the sector are characterized by a set of common values, recognized in all cultures, such as: priority for human and social objectives, respecting the principle of solidarity and responsibility, communion between the interests of members and the general interest of community, open and voluntary adhesion, autonomous management, democratic control exercised by members. Simultaneously, social economy enterprises are recognized as having a role to play in supporting the goals set by the government or local policies and also helping to increase the labour

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productivity and product competitiveness by encouraging community members to solve the local issues or by offering new ways of supply of the products and services.

According to the European view, social economy enterprises are economic operators in the social economy sector, whose objective is to have a predominantly social impact. To achieve this objective, social economy enterprises operate on the market as economic agents by supplying goods and services and use their profit to achieve the social objectives assumed towards the members of the community in which they operate. To achieve its mission for the local community, the management of social economy enterprises is open and responsible, involving almost equally, employees, clients, and stakeholders in the decision. Also, in European Commission view, social economy enterprises are entities that cover the following three main categories of business:

- a) Those enterprises for which the social objective of the common good is the reason for their commercial activity, often with a high level of social innovation;
- b) Those enterprises whose profits are mainly reinvested in social activities to achieve their social objective;
- c) Those enterprises using democratic or participatory principles, or focusing on social justice, where the method of organization (or the ownership system) reflects the enterprise's mission.

The oldest form of social economy organization, legally recognized, was cooperatives. Nowadays, besides cooperatives, in the social economy sector, we also can find new organizations, as non-profit organizations, mutual aid houses, SMEs, insurance companies, banks, or more recently, social enterprises and social inclusion enterprises.

In the recent decade, we are going through a period characterized by rapid and frequent transformations and changes. Therefore, we may see paradigm shifts in all areas considered conventional: the expansion of business in areas belonging to the social sector, privatization of public services, the proliferation of business initiatives in the non-profit area. In this perspective, social economy enterprises are challenged to obtain financial results able to confer them trust capital and respect in the community that will facilitate their achievement of the assumed mission. Thereby, it gradually creates the framework through which social economy enterprises are starting to engage in local economic strategies, sometimes in a public-private partnership.

In my vision, there are at least four key questions, and also challenges, for social economy enterprises:

1. How to fulfil social economy enterprises their social mission in the absence of economic activities generating profit?
2. What kinds of benefits for the community generate the social economy enterprises?
3. What kind of values will generate social economy enterprises?
4. What is the added value in the benefit of the local community by social economy enterprises?

Last but not the least, social economy enterprises have the capacity to achieve lucrative networks in local communities, based on acquiring of common values, solidarity, co-operation and complementarities of economic exchanges. These networks, based on trust relationships established between people, will become in time the germs of social capital at the community level.

The social economy enterprise, as a pattern of economic organization, has particularly attracted my attention in the past period. Thus, I came to consider this economic entity of private law, belonging to civil society, as a vector of progress in local communities (especially in contemporary Romanian ones) and as a facilitator of the consolidation of collaborative communities (Nicolae, 2017, p.121).

## 2. Literature Review

Although the social economy has deep roots in history at the level of application, theoretical and methodological approaches to the field of study are in its infancy. In the work-papers studied is highlight that, at conceptual and doctrinal level, social economy is defined by a variety of terms and expressions, as: “third sector”, “the third way” “non-profit sector” or “solidarity economy”, each of these terms being used in close connection with the purpose and theme of the work, or with the affiliation of the authors to a particular trend of thought. Thus, I have found definitions of the social economy as follow: “the term used to indicate those activities where the resources are directed to a social purpose and to the community in which they are implemented” (Alexandru et al, 2010, p.17), but also attempts to define this economic field which, without exactly express what social economy is, expose the purposes for which this sector develops: "has developed in need to find new innovative solutions for social, economic or environmental issues, and to satisfy the needs of community members that are ignored or insufficiently covered by the public or private sector”.

On the other hand, prestigious international institutions such as the International Centre for Research and Information on the Public, Social and Cooperative Economy (CIRIEC) define social economy by direct reference to the organizational features of the representative enterprises. This definition is also reflected in the regular reports on the progress of the social economy in the European Union. Thereby, according to CIRIEC Report 2012 social economy is “*the set of private, formally-organised enterprises, with autonomy of decision and freedom of membership, created to meet their members’ needs through the market by producing goods and providing services, insurance and finance, where decision-making and any distribution of profits or surpluses among the members are not directly linked to the capital or fees contributed by each member, each of whom has one vote, or at all events take place through democratic and participative decision-making processes. The social economy also includes private, formally-organized organizations with an autonomy of decision and freedom of membership that produce non-market services for households and whose surpluses, if any, cannot be appropriated by the economic agents that create, control or finance them*”.

Since I have not identified a common core for defining the social economy at the theoretical and conceptual level, I have performed an integrative analysis of the scientific literature in order to identify the current state of the research, the existing gaps or possible contradictions of terms used in defining the concept of social economy and also the representative organizations. The procedure adopted for revising the scientific literature followed the recommendations suggested by Tranfield and collaborators and assumed the following steps: a) specification of search criteria and selection of databases; b) setting the time interval; c) method of analysis and mapping of the intellectual structure of research (Tranfield et al., 2003).

a) The search strategy for documentary research has supposed access to Scopus and Web of Science databases and, finally, I have selected only the relevant works, indexed ISI (Table 1);

Table 1: Selection criteria for indexed works in Scopus and Web of Science databases

|                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Results: 199 - (from Web of Science Core Collection)</b><br>You searched for TOPIC: ("social economy") TOPIC: ("social economy")<br>Refined by: WEB OF SCIENCE CATEGORIES: (MANAGEMENT)<br>Timespan: All years. Indexes: SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC. |
| <b>Results: 77 - (from Web of Science Core Collection)</b><br>You searched for: TOPIC: ("social enterprise") TOPIC: ("social enterprise")<br>Refined by: WEB OF SCIENCE CATEGORIES: ( MANAGEMENT )<br>Timespan: All years. Indexes: SSCI.                                                                          |
| <b>Scopus refine results values - Scopus-1684-Analyze-Subject</b>                                                                                                                                                                                                                                                  |

Your query: (TITLE-ABS-KEY("social economy"))

Number of results: 1684

Source Title (Medline-sourced journals are indicated in green) Titles indicated in bold red do not meet the Scopus quality criteria anymore, and therefore Scopus discontinued the forward capturing = 1528 publications in Economics, Bussines, Management

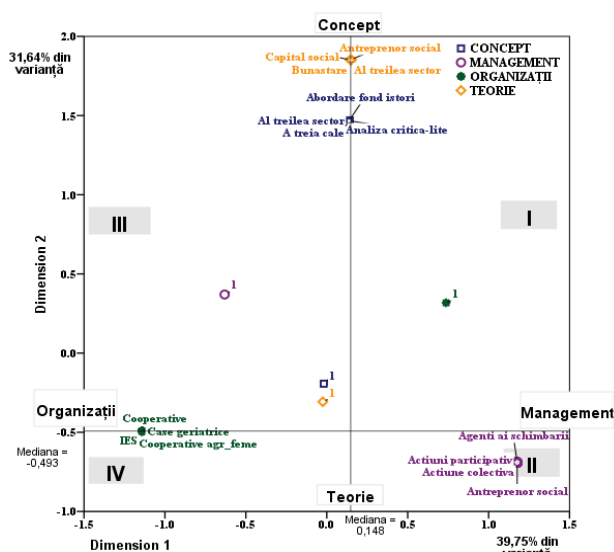
(Source: Documentary research achieved by the author)

b) Of the approximately 2,000 articles resulting from the interrogation of the two databases indexed ISI - Clarivate Analytics and Scopus - and after I removed the items that no longer met the quality criteria imposed by Scopus, articles that were indexed in both databases and articles that did not have a minimum number of relevant information for the study, I have obtained a database of 230 papers published between 1998-2017, out of which 172 papers were published recently, between 2012-2018;

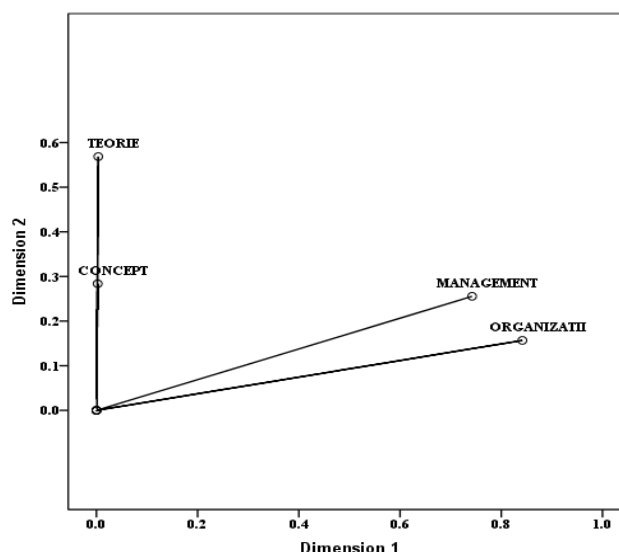
c) In order to perform the integrative analysis and mapping the intellectual structure of the research, I have selected the method of multiple correspondence analysis (MCA) on the content of the selected works, as it allowed me to explore the association between the categories of qualitative variables (Costa, Santos, et al., 2013). The results obtained from the data processing highlight the significant gaps in the scientific literature, both in terms of social economy approaches and the approaches on social economy enterprises, as we shall see below in Figure 1.

The association between variables is given by the magnitude of the distance between the vectors for both analysed dimensions. Thus, the variable conceptual approaches are associated with various theoretical approaches. The association of the two categories of variables allowed me to note the vertical axis as the Concept-Theory axis. Also, the management variable is associated with organizations variable. Due to the combination of the two variables, I have noted the horizontal axis as the Organizations-Management axis.

The small number of scientific works identified, as well as their location in the four quadrants of the chart in Figure 1 a), highlights that there are serious gaps in the conceptual approach of social economy and also so many open directions for future research (González- Loureiro, 2016, p. 65).



a) Mapping selected works



b) Size of vectors (Discrimination measure)

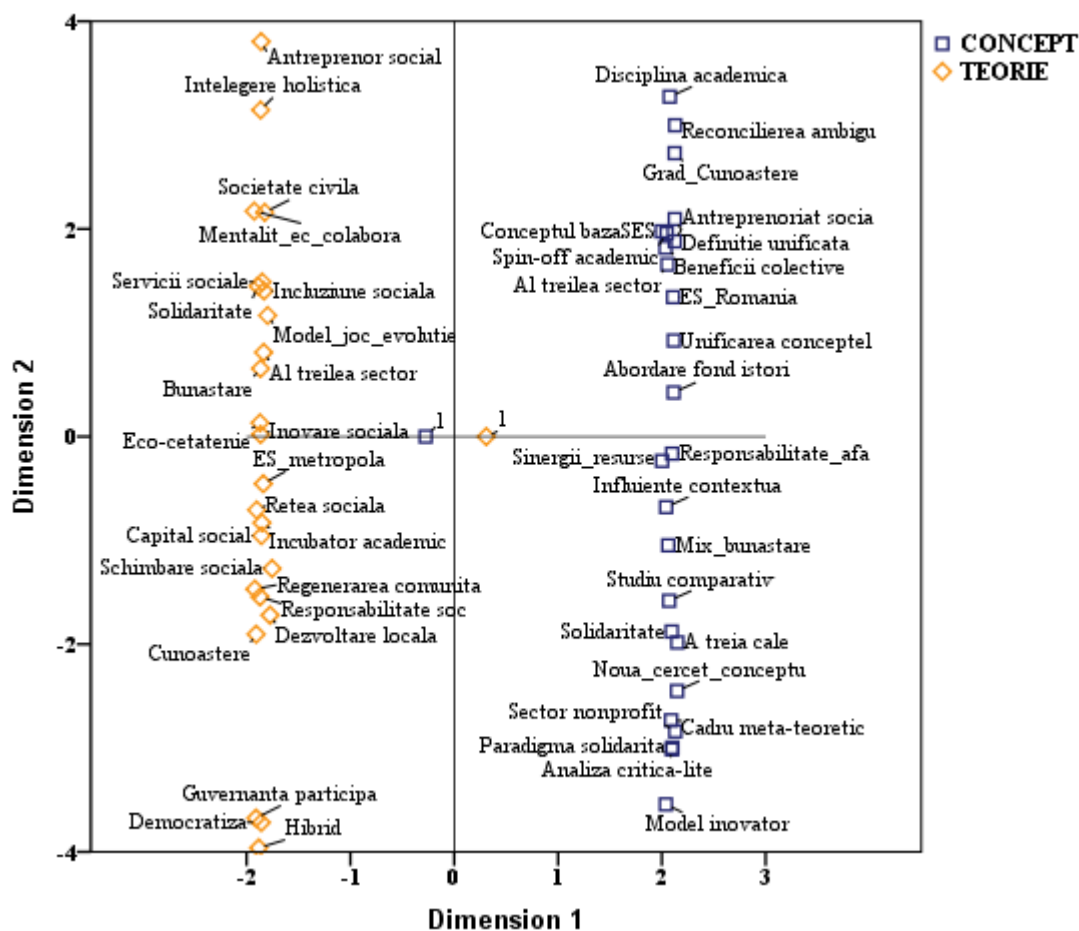
Figure 1. Multiple correspondence analyses of the works.

Source: Data analysis in the SPSS application, by the author.

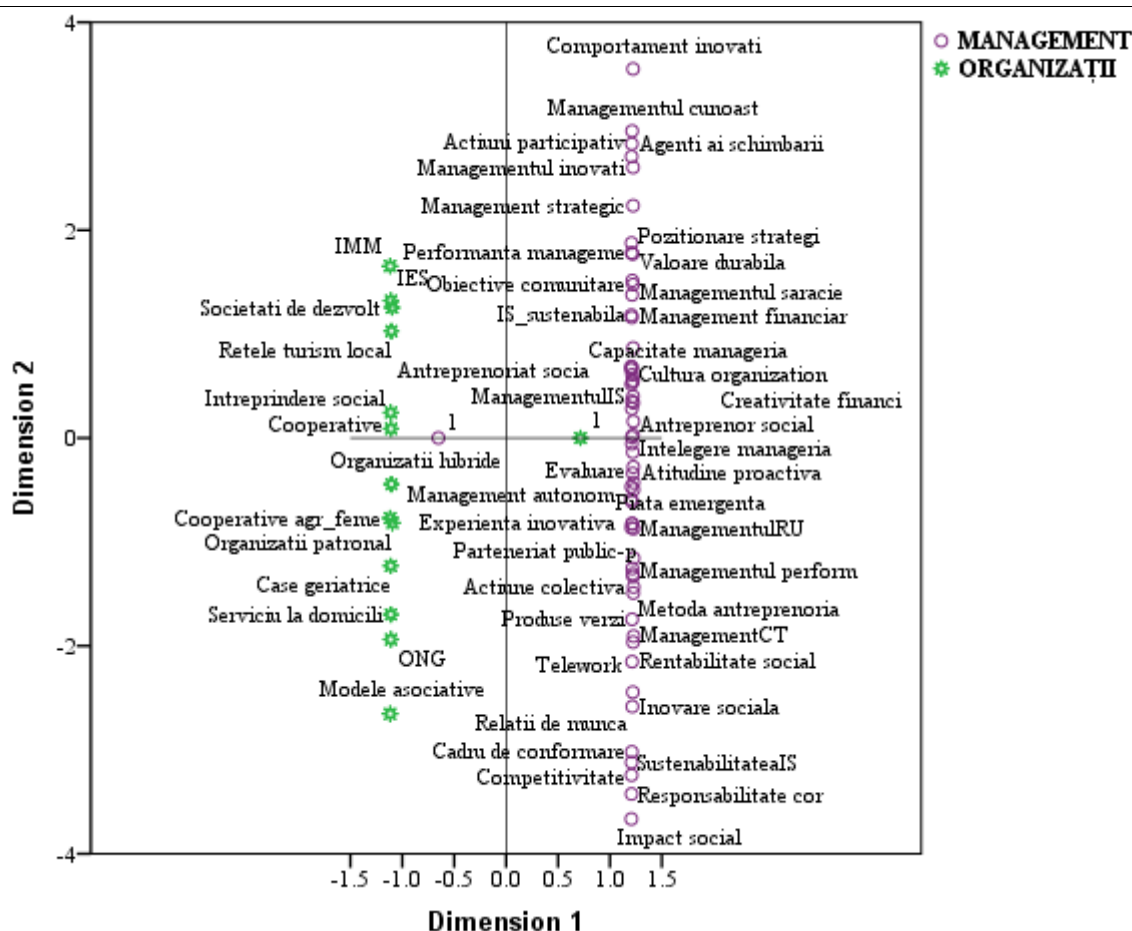
Defining the concept that describes the social economy as universally acknowledged, academic science falls into the category of "hot" subjects but with relevant gaps to qualitative studies. There are a number of themes that capture attention and at the same time, open new directions of research from spheres such as:

- The approach of the historical background of the social economy,
- The social economy approach as the third economic sector,
- The social entrepreneurship,
- The collective benefits,
- The unified definition of social economy,
- Is the social economy an academic discipline?
- The social economy in Romania,
- The degree of knowledge of social economy,
- The reconciliation of the ambiguities and the unification of the social economy concepts.

As we may see in Figure 2, regarding the current approaches on the social economy enterprises, the analysis of the results led me to the following conclusions: the current approaches to social economy enterprises are at the beginning; there is a significant gap in the scientific literature in terms of approaches to social economy enterprises.



a) Distribution of variables Concept and Theory



b) Distribution of variables Organizations and Management

Figure 2. Analysis of multiple correspondences related to the current state of scientific literature.

Source: Data analysis in the SPSS application, by the author.

As far as the management of social economy enterprises is concerned, I have identified a very small number of works. Between these, only a few approach topical issues in management. Thus, the attention of the researchers is focused on the following topics: social entrepreneurship (13 papers), performance management, TIC management, social enterprise management and social value (3 papers), financial management, strategic orientation, and social responsibility (2 papers). Only a few approaches are related to participatory actions, agents of change, innovative behavior, knowledge management, and innovative management, for which was identified only one work-paper.

Two **major conclusions** were highlighted after the integrative analysis of scientific literature:

- 1) Current approaches about social economy enterprises are in their infancy stage;
- 2) Management of social economy enterprises is characterized through a significant gap in the scientific literature.

These conclusions allowed me to understand at the same time that it is a very generous space for innovation in the area of organizing social economy enterprises at the level of local communities. For this reason, I will propose in the next pages a new model of social economy enterprise adapted to local communities.

### 3. Research Elaborations

**The main objective** of this work-paper consists of elaborate and presenting a new conceptual model of a social economy enterprise, a network of people and relationships developed at the level of local communities, inspired from the natural living systems.

**The research question** was formulated as follows: *"humans are the only beings able to organize their socio-economic life efficiently, or does nature offer us better alternatives to the human model of organization?"* Looking around, to the natural living systems, for an answer to this question, I found some seemingly tiny creatures characterized by great solidarity. The behaviour's rules of these creatures appeared to be similar to the values promoted, in the human society, by the social economy, like solidarity, responsibility, communion of interests, autonomous management, etc., so I wondered if I could "copy" and "multiply" their organizational model in a pattern of economic structure characterized by adaptability to the environment, flexibility in operation and efficiency.

**Working assumption:** Nature, through its complexity, offers free of charge many organizational models that can be used as a source of inspiration for designing management systems characteristic for human activities.

**Working methodology** used to select the living, natural system model, as a conceptual model of the social economy enterprise, **assumed the following algorithm** in four steps (Popescu et al., 2017, p.133):

1. Definition of the research items, characteristic of the behaviour of the three living beings;
2. Eliminating from the study the living beings containing the unknown research items;
3. Elaboration of a matrix with the main characteristics of the living beings remaining in the study;
4. Selection and replication as a model, the living natural system whose level of economic and social organization presents an orderly organizational architecture and optimal efficiency for individuals and for the environment.

For the relevance of the study, I selected **three natural systems**, consisting of beings **living in communities**: ants living in the ant-hill, fish living in swarms and bees living in the beehive, and I tried to understand their economic and social behaviour. Optimal selection of the living system with the most efficient organization in communities was made analysing the answers on a series of questions addressed to aspects of both social and economic, organizational, criteria. I have thus eliminated from the study, in successive stages, that living system about which we knew as little as possible about its social organization and, finally, I have selected the model used to design the structure of the social economy enterprise.

### 4. Results and Discussions

The successive application of the work algorithm guided me to the following results:

1. Definition of the research items, characteristic of the behaviour of the three living beings, consists in establish the social and organizational criteria followed by the living beings selected for the study, as follow:
  - a) Social criteria: social cohesion; the ability of individuals to communicate; the social division of labour;
  - b) Organizational criteria: the existence of individual tasks, the existence of collective tasks, the existence of a hierarchy and social rank, coordination of individual efforts, and especially, own organizational architecture.

2. Eliminating from the study that living beings containing the unknown research items: as we have insignificant information about fishes living in swarms, as the social organization of their life, the first living system removed from the study were the fish.

3. Elaboration of a matrix with the main characteristics of the living beings remaining in the study. For this stage of the research, I had realized an analysis of organizational criteria of the living systems, as follow:

- a) Family organization: each of two living systems remaining in the study have strong families, between up to millions of individuals and at least three queens for ants and between 10.000 - 80.000 individuals, queen, drones, bees with different specializations for Bees;
- b) Duties: for ants, work has a high degree of specialization and roles as guards, gatherers, hunters, nurses, garbage collectors, soldiers, etc. (Passera, 2012). Bees are genetically programmed to fulfil specialized tasks one by one, depending on age: collector, water carrier, sanitary, military, etc.
- c) Hierarchies: each living system develops its social and economic life around the queen;
- d) Social cohesion: each living system has a powerful social cohesion in the colony/swarm;
- e) Ability to communicate: each living system has developed his own abilities to communicate through specific pheromones;
- f) Coordination of individual efforts: each living system has developed his abilities to coordinate individual efforts according to specific "social rules";
- g) Own organizational architecture: ants are organized in an ant-hill. This structure tends to capture any space. Expansion can reach the level of true megapolis. On the other hand, bees are very rigorous, organized in hives, having the queen in the centre. We can find here a high degree of space utilization by the bees.

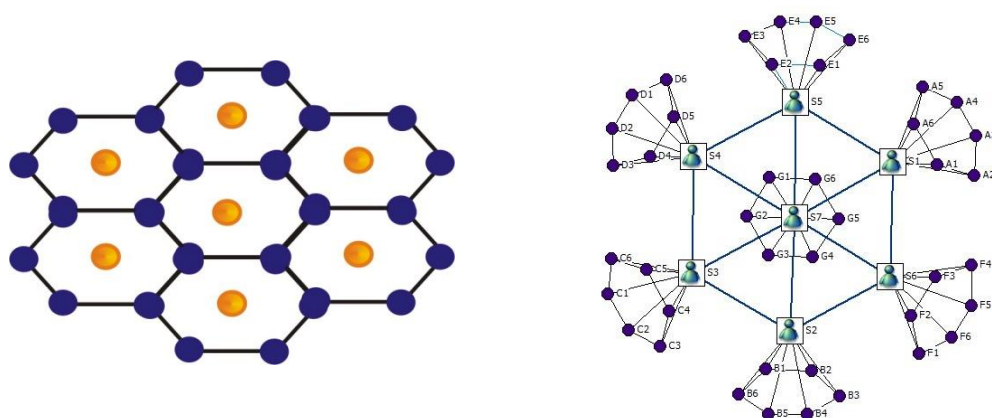
4. Selection and replication as a model that is living a natural system whose level of economic and social organization presents an orderly organizational architecture and optimal efficiency for individuals and for the environment.

All rational arguments, behind the selection of the organizational structure model of the social economy enterprise, have led me to select the model of the organizational structure offered by the beehive, which is a truly living organism in action: life is rigorously organized in the hive, social division of labour, spirit of sacrifice for the common good, cooperation, preservation of the environment and last but not least, specific hexagonal fractal architecture of the hive that is formed around the nucleus represented by the queen.

Similarly, starting with the features of the beehive, I have designed a socio-economic unit of individuals and relationships, respecting the same type of association - a network coordinator manages the activity of six territorial economic actors - which can be replicated in local communities, as is shown in Figure 3.

The economic system introduced by this model is a network of people and relationships designed as an application of social networks. In the scientific literature, social networks are defined as being composed of a finite set of actors - as nodes of the network - along with the relationship or relationships established between them - as ties of the network (Wasserman and Faust, 1994, p.20). Multiplication by replication of elementary units leads to the compile of an innovative socio-economic network at the local community level. At the same time, a new concept of social economy enterprise adapted to the specific of local Romanian communities is born, following the model of the fractal organization of nature.

The fractal structure type honeycomb is composed of autonomous units, characterized by self-similarity and self-organization, with its own decision-making power, open and collaborative.



a) The extended network in the territory; seven interconnected units.

b) The same structure obtained by processing the mathematical model in VisualLyzer2.2 application.

Figure 3. The network structure of the social economy enterprise, type honeycomb.

Source: Conceptual model proposed by the author.

This new approach of social economy enterprise treats network's actors as interdependent units rather than autonomous units, and the ties between them as transfer channels or resource flows (Borgatti and Everett, 2002). This socio-economic network, as a fractal enterprise composed of autonomous, self-organized units, has the possibility of replication on horizontal or vertical at the level of network coordinators.

Hexagonal fractal structure of the social economy enterprise, based on the collaboration and solidarity of the economic actors, generates over time a new way of life becoming, at the level of the local community, a germ of the knowledge-based society. Each fractal unit is individually organized and self-correlates with the other units in order to achieve the objectives of the enterprise, thus ensuring the operation of the network. The information circulates freely within the structure and can be accessed by interested persons.

The conceptual model of such a social economy enterprise has a double quality in the local community: (a) economic agent, shareholder, and developer of profit-generating activities; (b) material and moral support of the community in which it operates.

Social economy enterprise, type honeycomb, can carry out any legally regulated economic activity that is suited to the local specificity and covers a need for consumption, except for activities covered by special laws, as follow:

- a) Networks in production, predominantly individual or family-business production activity;
- b) Networks in services, including medical services;
- c) Networks in education, culture, social activities;
- d) Networks of activities for preserving resources and protecting the environment;
- e) Innovative clusters around excellence in research: individuals, start-ups, research organizations, SMEs;
- f) Integrated networks of producers, processors, and intermediaries of agricultural products;
- g) Networks of local, national or international markets;
- h) Conservation of local traditions and national identity through specialized networks;
- i) Seasonal and permanently integrated tourism networks at the local and regional level;
- j) Mixed local networks designed in the public-private partnership, for community projects of local interest;

- k) Permanent or occasional networks organized for the specific issue generated in local communities.

## 5. Conclusions

From the perspective of a vector of progress in local communities and facilitator of the consolidation of collaborative communities, the conceptual model presented in this paper is the result of extensive research and is a pioneering work in approaching a social economy enterprise.

The conceptual model of the social economy enterprise, type honeycomb network, is a driver of economic growth that serves the general interest of the community, contributes to increasing individual empowerment and achieving societal harmony. This new concept of social economy network repositions inter-human relations in natural order, according to models that are found everywhere in the living world, considering that the current economic systems are based on false or falsifiable considerations. In this perspective, the implementation of the new conceptual model of social economy enterprise, type honeycomb, creates the premises for the sustainable development of local communities. Also, this innovative structure acts as a collector of values in the local community (economic values, social values, and moral values), facilitating development in any socio-economic environment.

The economic model proposed in this paper is an open, environmentally adaptable system, perfectly integrated into any community, both from rural and urban areas, starting for example, with compact communities such as a street, a classroom, or a residential neighborhood.

Finally, this paper opens the perspective to develop the theory of networks, directly applicable in management, especially in the management of the economic flow of values.

## 6. Acknowledgments

I would like to express my special gratitude to the Association Laboratory of Solidarity, where I have discussed the first findings of this research, and I was encouraged to continue the study and to present the research results to the 7th CIRIEC International Research Conference on Social and Solidarity Economy.

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*Manuscript received: 15.10.2019*

*Manuscript received in revised form: 13.11.2019*

*Manuscript accepted: 14.11.2019*