

Proposal to measure the hidden face of the values of the social economy: Its impulse to environmental and social transformation. From a stakeholders driven to a territorial driven approach



Propuesta para medir la cara oculta de los valores de la economía social: Su impulso a la transformación ambiental y social. De un enfoque impulsado por las partes interesadas a un enfoque impulsado por el territorio

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ABSTRACT

In the last lustrums, the literature has searched for more precise methods to assess the socio-economic importance of the Social and Solidarity Economy (SSE). On that basis, this article offers a new way of assessing the SSE impact, enhancement the understanding of the SSE potential for socio-economic transformation. An evolutionary micro-meso-macro and territorial theoretical framework is developed, by means of which along with the assistance of a qualitative methodology, studies the transformation promoted by the SSE on the sugar cane cluster of Veracruz (Mexico). The article shows the need for a "territorial driven approach" of the SSE impact, compared to the "stakeholder driven approach" that has been dominant up to now. The reason lies on the fact that the SSE impulses beneficiaries, while the protagonists of the transformation, cannot be defined a priori, but are rather conformed by the transformation process itself. The transformation vectors promoted by the SSE are the SSE values shared by a wide spectrum of actors, the SSE organizational specificities and the SSE rooting in the productive system. Lastly, the appropriate indicators are derived to capture this process.

RESUMEN

En los últimos lustros, la literatura ha buscado métodos más precisos para evaluar la importancia socioeconómica de la Economía Social y Solidaria (ESS). Sobre esa base, este artículo ofrece una nueva forma de evaluar el impacto de la ESS, mejorando la comprensión del potencial de la ESS para la transformación socioeconómica. Se desarrolla un marco teórico evolutivo micro-meso-macro y territorial, mediante el cual, con el apoyo de una metodología cualitativa, se estudia la transformación impulsada por la ESS en el clúster cañero de Veracruz (México). El artículo muestra la necesidad de un "enfoque territorial" del impacto de la ESS, en comparación con el "enfoque impulsado por las partes interesadas" que ha sido dominante hasta ahora. La razón radica en que la ESS impulsa a los beneficiarios, mientras que los protagonistas de la transformación, no pueden definirse a priori, sino que están conformados por el propio proceso de transformación. Los vectores de transformación que promueve la ESS son los valores de la ESS compartidos por un amplio espectro de actores, las especificidades organizacionales de la ESS y el arraigo de la ESS en el sistema productivo. Por último, se derivan los indicadores apropiados para capturar este proceso.

KEY WORDS:

SOCIAL AND SOLIDARITY ECONOMY, INCLUSIVE AND SUSTAINABLE DEVELOPMENT, EVOLUTIONARY APPROACH, TERRITORIAL TRANSFORMATION

PALABRAS CLAVE:

ECONOMÍA SOCIAL Y SOLIDARIA, DESARROLLO INCLUSIVO Y SOSTENIBLE, ENFOQUE EVOLUTIVO, TRANSFORMACIÓN TERRITORIAL



INTRODUCTION

In recent decades, extensive literature has been developed to explain how to value and measure the socioeconomic importance of SSE Social and Solidarity Economy (Bouchard, 2009; Bouchard and Rousselière, 2015; Ebrahim and Rangan, 2014; Saïd et al 2018). A part of this literature quantified the sets of SSE activities with a series of variables, such as production, employment, etc. This exercise has also been carried out at different levels of the reality of the SSE, covering individual initiatives (micro level), initiatives in different sectors or regions (meso level) or the economic level as a whole (macro level) (Bouchard, 2009; Bouchard and Rousselière, 2015; Saïd et al, 2018). The analysis underlying the SSE, measured in these terms, is very important especially when its evolution over time is analyzed, showing some highly relevant dynamic aspects such as its greater resilience than capitalist companies when faced with crises, measured for example, by their greater ability to maintain employment or production (Chaves-Ávila, 2020)

Now, this way of measuring the significance of the SSE is only an indication that does not allow us to capture other aspects that acquire great importance in the projection of the SSE within the whole socio-economic system.

We will argue that SSE constitutes an essential transformation instrument for socioeconomic systems. However, this role goes beyond the scope of the SSE itself, in order to capture and measure this transformation potential, we need to understand how it contributes to and drives change on the path of socio-economic development.

This article will try to demonstrate the transformation potential in SSE by showing, on the one hand, its ability to promote a more socially inclusive and environmentally friendly development path. And, on the other hand, to think a series of indicators that make it possible to measure the transformative potential of the SSE.

We have considered that analyzing the potential for transformation that SSE may possess, is not separate from the socio-economic structures from a social formation. Therefore, it is convenient to delimit the type of realities under study.

In this sense, although the analysis contained in this work could have a more general field of validity, the article will focus on the problems of Latin America and, more specifically, on a set of countries and regions that face important obstacles to their development. Indeed, the article will pay special attention to a type of society in which the entities that are created following the legal forms of the SSE, especially cooperatives, are captured since their formation by the network of dominant political-economic actors.

Recently, however, this has not prevented some of these initiatives from developing in a spontaneous, endogenous and territorial rooted process, generating a new transformative path promoted by the SSE values. This process will be connected with other local movements and civil society, which have shown a huge transformation capacity (Develtere, 1993; Tomás Carpi, 1997; Defourny and Develtere, 1999; Gallego and Tapia, 2021). This is the case, in particular, of a series of regions and clusters in Latin America that show a certain capacity to exhibit a more inclusive and environmentally sustainable development process. (Berdegué et al, 2015).

In this context, this article offers in the following section a conceptual framework that will show, firstly, the SSE capacity to promote a process of the clusters transformation in developing countries (particularly in Latin America). And, secondly, it will conceptually show some clues on how to capture the impact of SSE measured by its transformative capacity.

To address this double conceptual challenge, and this is the main theoretical contribution of the article, a micro-meso-macro evolutionary approach will be developed, in which these three different levels are defined in dynamic and structural terms, with meanings in some cases different from how they are usually understood. In a third section, we will use this framework to illustrate the case of the Veracruz sugarcane cluster, where the SSE is managing to promote the creation of a new path of inclusive and environmentally sustainable development. The leadership that a series of SSE entities are exercising over a broader set of actors will be evidenced, thanks to the existence of a series of world views and values shared by these actors, which are largely those of the SSE: cooperation, trust, acknowledgment and transparency relationships. In a fourth section, a system of micro, meso and macro indicators will be deduced that allow us to capture the transformation potential of the clusters and territories that the SSE entities have. The article will end with a discussion and conclusions section.

GRABBING THE POTENTIAL TRANSFORMATIVE IMPACT OF THE SSE REQUIRES MOVING FROM A STAKEHOLDER DRIVEN APPROACH TO A TERRITORIAL DRIVEN APPROACH

Evolutionary roots of the shift from a “stakeholder-driven approach” to a “territorial-driven approach” of the SSE impact

We will start from “the evaluation of the social economy reflects the role the social economy is expected to play in the development model and its transformation” (Bouchard, 2009:13). Insisting on this same idea, Richez-Battesti et al 2009. emphasizes that “what is at stake with the evaluation is also –and above all- the definition of the field of the SSE and its modes of regulation” (p.14).

Bouchard argues that diverse evaluation approaches are associated with different underlying theoretical approaches or paradigms. And she connects the managerial and strategic perspective, the neo-institutionalist economics and the institutionalist sociology perspective with different approaches to assess the importance of the SSE. (Bouchard, 2009: 28). In this sense, the emphasis of Bouchard (2009) and Richez-Battesti (2009) on the transformation and modes of regulation that the SSE is capable of printing, is part of the latter institutionalist approach. Now, in our perspective, it is key to complete this institutionalist sociology approach with an evolutionary approach, where retaining the sociological importance of power relations, and in the search for a more democratic economic model, the contribution of the SSE to a process of change and transformation is inserted, where new actors, competencies, relationships and values appear.

The SSE can promote a transformation in the clusters and territories in which they operate, by involving a plurality of actors with partially different competencies, relationships and values, they are capable of promoting (through interaction with these other actors) the

shift (territorial) from the micro to the meso level. And this shift is of vital importance for the effective institutionalization of individual SSE initiatives (Bouchard, 2009; Spear, 2009, Coraggio, 2015). This allows us to connect the evolutionary perspective that we are going to describe, with the evaluation of the impact of the SSE.

In this sense, an important literature advancement to evaluate the incidence of SSE is the work of Ebrahim & Rangan (2014). As they synthetically point out, "outputs don't necessarily translate into outcomes, and outcomes don't necessarily translate into impact" (p 123). What this means is that the true impact of SSE entities lies in the meso sphere of the diffusion and institutionalization of individual (micro) initiatives. Now, in order to appreciate the true impact of the SSE on this meso level, we have to conceptualize how this meso impact go beyond the SSE entities themselves and how this process is linked to the transformation mechanism associated with the SSE. For that purpose, first, we are going to formulate this general principle of transformation in the remainder of this section. And in the next section it will be shown how the SSE gives direction and how this transformation process is supported in its productive-territorial rooting, which precisely confers to the SSE its scope in terms of generating a path towards a more inclusive and environmentally sustainable development.

We will begin by advancing the general element of the evolutionary foundation of the need for a territorial driven approach to the impact of SSE. Thus, in recent years the Social Accounting and Audit (SAA), Social Return of Investment (SROI) and Logical Framework (LF) approaches were developed, which try to measure the impact of the SSE. A characteristic that Saïd et al (2019: 4) attribute to the Logical Framework Approach (LFA) (but which could also be extended to other approaches) it is that it is a stakeholder driven approach. In other words, an approach that seeks to assess the impact of the SSE by measuring the effects of its entities on the stakeholders (interest groups). With this approach, stakeholders are defined a priori and respond to a static scheme or approach. Now, from an evolutionary perspective, SSE initiatives generate ideas and innovations that in turn connect with other ideas and innovations, which likewise stimulate the development of new ones. An emerging process of transformation and structural change is generated, which cannot be anticipated a priori (Metcalf, 2002). As the territory is a space constructed socially by the actors through their interaction (Gallego and Pitxer, 2018), it is expected to constitute a privileged space within which these chains of ideas, innovations and connections are produced. Especially when it is reasonable to expect that the actors are going to be favored by interacting with other actors on these same terms, and which are also very close with respect to their expectations, worldviews and values (Hassink et al, 2019). Hence, in this article we support the hypothesis that there is a need to assess the impact of SSE as territorial driven. Because, in coherence with the open nature of the interaction and change, the stakeholders will define themselves by the process of structural transformation itself, while they will also give it feedback. This is what we are going to conceptualize in more detail below with the help of the micro-meso-macro approach, but connecting it with the territorial roots of the SSE.

The values of the SSE: motor of transformation and basis of the development trajectory and its rooting in the production system

We are defending the hypothesis that in the context of clusters in developing countries, SSE may be the engine of a change in the dominant development model in the territory.

This development model consists of the emergence of new economic activities and a new development path in the territory (Hassink et al., 2019). To support this hypothesis, we develop an evolutionary approach that emphasizes the generation of micro-variety (actors, competencies, relationships and values) at the heart of change (Nelson and Winter, 1982; Metcalfe, 2002; Nooteboom, 2009; Castells et al, 2017; Tomás Carpi and Sánchez Andrés, 2017). Now, in the micro-meso-macro evolutionary approach being defended, changes do not occur when they are generated by an entity or organization (micro), but through a meso-trajectory of generation, adoption, diffusion and institutionalization of these changes in the set of entities or organizations that define a population (Dopfer and Potts, 2008).

The macro order is generated through the adjustment between different meso-trajectories. Therefore, the deployment of a meso-trajectory can destabilize it, which frequently does not happen because there is a set of institutions or meta-institutions that operate at a high level of abstraction (values, beliefs, etc.), that allow coordination behaviors, limiting the variation margins of the meso-trajectories so that they are compatible within a macro order (Hayek, 1988; Dopfer and Potts, 2008; Dopfer, 2012). Note that "although we measure at the macroeconomic level, we cannot understand the growth process in these terms [but] that aggregation hides the evolutionary process generated by the aggregation in question" (Metcalfe, 2002:7).

From an evolutionary perspective, the macro order supposes the existence of a behavior pattern and this can only happen when there is a structural coherence between the activities that make up this order (Metcalfe, 2002). This reasoning is very important to appreciate the macro level of incidence of SSE from a new perspective. The core of the approach that concerns us constitutes the passage from the micro to the meso. We will anticipate that it is the internal heterogeneity of the aforementioned population, that can promote both the institutionalization of change and the transformation process itself.

In this sense, emphasis is placed on the need to measure the "impact" of the SSE, that is, on the capabilities of the SSE to reach the underlying problems (of inequality, discrimination, etc.) (Ebrahim and Rangan, 2014) or, as previously advanced, the need to institutionalize individual SSE initiatives (Spear, 2009). In Latin America, Coraggio has pointed out that "there is a clash between: 1: "the urgent survival needs of the impoverished and excluded sectors, as well as the targeted public programs of individuals or small groups related to self-employment designed to deal with this urgent situation" and 2: "the longer time frames required to give proper consideration to the possibilities of building a system of SSE and to allow for the cultural changes it entails. Both levels are needed. At the very least it is necessary to intervene at the first level while keeping the second level in mind, in order to shift from a micro to a meso-level perspective (promoting articulation, complementarity, territories and communities)" (Coraggio, 2015: pp. 147-148).

Our perspective also places the micro-meso articulation as of vital importance for the SSE, but placing more emphasis on the dynamic virtues of the SSE. In effect, we argue that the actors, competencies, relationships and values of the SSE can promote a transformation in clusters and territories by promoting interaction between actors that are at the same time similar as well as different. This capacity of the SSE will be supported by two key elements. First, the ability of SSE values to bring together different actors who share a series of world views and essential values in the face of the status quo, represented by the dominant actors. (Develtere, 1993; Berdegué et al, 2015; Tomás Carpi and Sánchez Andrés, 2017; Magrini et al, 2019; Gallego and Tapia, 2021). These values are supported by a set of principles "involved in the institutionalization of new economic activities" (Coraggio, 2015: 149). Principles that go from the market or the in-depth use of power relations, which are usually used by the dominant actors (Coraggio, 2015; Berdegué et al, 2015; Gallego and Tapia, 2019), to other values more typical of the SSE, such as reciprocity, fair trade, redistribution, non-exploitation of work, non-extractive development, responsible consumption, transformation of property relations (Coraggio, 2015: 49), and the recognition of knowledge from other actors, transparency, trust, and non-discrimination (Gallego and Tapia, 2021). Second, linking the SSE to the productive system gives it a potential capacity to transform the development model. Thus, for example, Coraggio (2015: 148) highlights that policies to stimulate the development of new forms of production should be seen as a necessary complement to redistributive policies.

The combination of both elements, gives the SSE entities, the ability (so far dismissed) to have an impact on the territory. It has been argued that the principles and values of the SSE lead them to commit to the needs of the community in which they operate. This can favor both a commitment to local development initiatives (which favors the inclusion of groups with difficulties/ disadvantaged groups), as well as a predisposition to address environmental problems, and to attract people committed to both inclusiveness and equity, as well as to environmental sustainability (Millstone, 2015: 93-94). Now, the connection with the productive systems in the framework of clusters in Latin America, means that there is an impact at a deeper level, from a structural perspective, in which the SSE and its integration in the territory can promote a process of change and transformation through a new development model. From this perspective, on the issue of inclusiveness, it is not only about showing the capacity of the SSE to develop programs and activities that incorporate people and groups with difficulties into employment and services. It is about showing that the SSE, because of its values and organizational characteristics, promotes shift towards a development model based on previously marginalized resources, actors, capacities and relationships.

In the same way, these values and worldview, are what make a certain type of institutions (rules of the game) and coordination mechanisms between actors based on reciprocity, trust, recognition and acceptance of knowledge predominate (for example a tacit character and based on the experience of the others) (Gallego y Tapia, 2019 y 2021). And this, causes a type of embeddedness (Boons and Howard-Grenville, 2009) and an organized (cognitive, organizational and institutional) proximity between actors (Torre, 2008), which constitutes an essential condition for cooperation between actors so they can introduce innovations in industrial ecology (the use of waste from some productive activities as inputs to others, as occurs in natural ecosystems) (Gallego and Tapia, 2021).

It should be noted on the one hand, the link between values and principles of the SSE shared by actors who do not always belong to the SSE but who are marginalized (in various ways) by the status quo. And, on the other hand, the development of SSE's innovative initiatives from the production system itself. These two elements have another essential implication from the (meso) perspective of the institutionalization process of the SSE's innovations (Spear, 2009). It is about the SSE capacity to promote the development of a whole series of practice, epistemic and political communities among different actors capable to spread transformative impulses from the micro to the meso level, creating a transformative territorial network (Metcalf, 2002; Gallego and Tapia, 2021). This ability of the SSE proceeds in three essential ways. First, the organization of the SSE into second and higher degree entities gives them a great capacity to spread the new routines among all the other SSE entities that are related to each other (Gallego and Chaves, 2015 and 2016). Second, through the specific resources and know-how of the territory. Third, due to the richness of inter-sectoral relationships that innovative actors frequently carry in clusters of developing countries.

In a succinct manner, we understand from the above, the need to move from a stakeholder driven to a territorial driven evaluation logic. We mean that the territory itself channels an essentially "meso-generating process" of a whole set of connections and interactions between actors that diffuse and amplify in complexity the innovative SSE initiatives, towards: a) other SSE entities, b) other entities that behave with the same principles and values or c) other entities that only share certain world views and values. All this makes it difficult to define a priori the stakeholders that ultimately benefit from the impact of the SSE. Now, this creative process of generating new connections is a process with fewer features of indeterminacy of those contemplated in the general explanation of Metcalfe (2002). This is due to the fact that in our framework, as in the reality that it is intended to represent, there is a polarization and fragmentation (social, political and economic) that causes the actors to only selectively engage with certain actors. The shared values then are those that define the top priority when selecting the actors with whom they will be preferentially linked.

This process of expansion of innovations in the territory, only partially indeterminate, allows us to see the meaning of the macro order in a new light. Indeed, we have highlighted above that the deployment of meso-trajectories generates tensions, but also evolutionary opportunities (Gallego and Chaves, 2016), in other meso-trajectories and can destabilize the macro order that assembles the different meso-trajectories (Dopfer and Potts, 2008). And we have seen the importance of a series of institutions that operate at a high level of abstraction (meta-institutions) to regulate the macro order, thanks to the establishment of certain limits to meso changes so, that they do not destabilize the macro order (Dopfer and Potts, 2008). "The [macro] order produces a pattern" (Metcalf, 2002: 7), in such a way that there must be a certain structural fit between the meso-trajectories so that a minimum coherence is generated, which is often very complex. This is where the question of intermediaries that can generate a space of confluence between different development paths arises (Hassink et al, 2019), that in regions and clusters of developing regions are often the reflection of different meso-trajectories. This is also a crucial aspect from the perspective of shaping spaces for overcoming socio-economic fragmentation, capable of leading to the shaping of more integrated and less polarized realities and therefore, more coherent from a structural perspective.

This space capable of expanding to the macro order, understood in a structural sense, opens a new field of research for the assessment and measurement of the impact of the SSE. For example, given the predominance of extractive behaviors (Coraggio, 2015) and little concern for efficiency in the clusters of Latin America (Tomas Carpi & Sánchez, 2017), the attitudes that seek better use of resources through the industrial ecology could generate a broad cross-sectorial space. This process could stimulate a movement shared by various actors (such as companies, technicians, researchers, and public officials) at the system's margin, those who are uncomfortable with the status quo and are willing to change it (Berdegú et al., 2015). This movement could contribute to the territorial extension of some of the new routines and innovations driven by the SSE values and defended by SSE entities and other leading actors of the network, and the progressive shaping of discourse in favor of a transformative frame (Schot & Steinmueller, 2018), more extensive, with more options to sustainably transform the cluster. Nonetheless, the synchronous coexistence of different discourses or even of different socio-technical micro-systems is highly probable.

METHODOLOGY AND INFORMATION SOURCES

The empirical objective of this article is to explain the transformation process of the Veracruz sugarcane cluster and identify the actors, competencies and relationships that drive this process. The research is based on a qualitative methodology with field visits and 107 in-depth personal interviews conducted between 2017 and 2020. A closed questionnaire was used for 43 key informants and an open questionnaire for 64 companies and stakeholders.

The sample intentionally includes all the sugarcane players. However, considering the objective of this research, the sample gives special importance to the actors that belong to the SSE (Union of Piloncilleros de Veracruz -UPV- and Asociación de Cañeros Independientes -ACI) and to the emerging business initiatives. The group of experts, based on their reliability and leadership, are businessmen, professionals, public servants, researchers and university professors. A sample was made using the networking or snowball technique that increased with the contacts of the interviewees until the saturation of the information was achieved.

SSE AS A DRIVER OF STRUCTURAL CHANGE IN THE SUGARCANE CLUSTER IN VERACRUZ (MEXICO)

Historic roots

Historically, the high mountain region in Veracruz, Mexico has stood out since colonial times for its economic importance, since the sugarcane plantation was favored, a sector that until now is the economic and social engine of this territory. The VC of sugarcane extends to consumers in the countries that make up the United States–Mexico–Canada Agreement (USMCA), but sugar production in this region is sold as a commodity, without adding more value to the GVC. Currently, it has crowded rural-urban territory with 65 urban centers, abundant water and biodiversity (GEV, 2013; Gallego and Tapia, 2021).

The purpose of the USMCA, the extension of the North American Free Trade Agreement (NAFTA), is to give the region advantages to compete with the Asian giants, incorporating some axes of the Circular Economy and the Sustainable Development Goals (ODS). There

is also the challenge of stopping corruption. The relevance of the economic actors in this territory to face these challenges is set out below.

Internal and external cluster organization: the formation of two polar networks

External dependency and internal hierarchical organization: the conservative network

The integration of the Mexican sugar sector into NAFTA in 1990 has simultaneously defined two radically different socio-economic realities.

On the one hand, the vertical integration to the GVCs, driven by powerful multinational actors, “has had a strong negative impact on agricultural products, on the quality of employment and on the environment” (Riquelme, 2016), accelerating migration and fragmenting knowledge that drives innovations. On the other hand, aided by globalization different Mexican SMEs have appeared, benefiting from the territory's competitive advantage to compete on the international market with more specialized products and services. This way, a transformative network will be formed around this local resource that is opposed to the status quo represented by the conservative network. As a consequence of a greater circulation of local resources, the value chain expands within the territory (Gallego and Tapia, 2021).

From 1990, the Mexican sugar sector is “cartelized”, guarantee prices for sugar cane and exchange quotas for sweeteners (cane sugar and corn syrup) are set between countries (Morales, 2017). Government actions (laws and policies) are shaped by the interests of different networks and levels of power. The conservative network is made up of the large corporate groups highly integrated into globalization (Cornbelt, sugar industry and US oil refineries). National business groups and organized groups with great social and political power are also incorporated into this network, such as farmers' associations (Confederación Nacional Campesina –CNC- and Confederación Nacional de Proprietarios Rurales –CNPR-), sometimes controlled by drug trafficking. This power dynamic in the conservative network shows little commitment to health (healthy food) and fair trade, key dimensions for socio-technical change. By isolating these objectives, the inclusion of actors and knowledge, it reduces the opportunity for economic insertion of the mills into the territory and into other economic sectors.

The opportunities to promote inclusion through cooperative initiatives (especially agricultural ones), and other forms of SSE are captured since their formation by some actors of this conservative network, to divert public money and for electoral purposes: “federal deputies ask us for 10% or up to o 50% of the money destined to the formation of agricultural cooperatives” (interviews with cane, coffee and papaya producers 2016-2020).

In terms of Industrial Ecology initiatives within this conservative network, they are based on inter-industrial relationships, such as the use of bio-mass to produce electricity for self-consumption and the usage of some by-products as inputs in other establishments to produce feed and fertilizers. But these inter-industrial relationships occur within the same company. This together with, the vertical integration of the VC favors the concentration of public spending on R+D+i in a national scientific-technological-political system, which restricts its scope of research to a very limited field. The network of actors that make up

this system, includes the actors aforementioned and the public research centers, public universities, political parties, and government officials. So, as the sugarcane crop is basically destined to sweetener production, research in this only line is carried out, but its creation potential of other products is not recognized (biodegradable containers, paper, building, fabrics, medicines, solvents, etc.) that may include opportunities for specialization and entrepreneurship supported by the resources (human and natural) within the territory. This limits the inter-enterprise exchanges that stimulate the socio-organizational innovations, restricts the opportunities to the now marginalized actors, and the scope of environmental protection (Gallego y Tapia, 2019 and 2021). See table 1.

Table 1. Business behaviour according to subsectors of the value chain and new innovative firms against the rest (results expressed in %)

Different areas of business behaviour		Total firms in Absolute Values 54	Group of conservative Companies AV 42					Group of Innovative Companies AV 12	
			Farming Suppliers AV: 1	Small farmers AV 21	Medium farmers AV 8	Sugar Mills AV 8	Sugar mills services AV 4	Sugar services & trade AV 2	Piloncillo producers AV 10
Kind of products and services	Generic	77,8	100,0	100,0	100,0	100,0	100,0	0,0	0,0
	Specialised	40,7	0,0	0,0	100,0	25,0	0,0	100,0	100,0
Origin of companies	Local	81,5	0,0	100,0	100,0	25,0	25,0	100,0	100,0
	National	14,8	100,0	0,0	0,0	50,0	75,0	0,0	0,0
	International	3,7	0,0	0,0	0,0	25,0	0,0	0,0	0,0
Sales markets for products and services	National	100,0	100,0	100,0	100,0	100,0	100,0	0,0	100,0
	NAFTA	50,0	0,0	0,0	100,0	100,0	0,0	50,0	100,0
	Resto of the world	13,0	0,0	0,0	0,0	75,0	0,0	50,0	0,0
Types of innovation	On process or product	50,0	0,0	0,0	100,0	37,0	100,0	100,0	100,0
	On Market	37,03	0,0	0,0	100,0	0,0	0,0	100,0	100,0
	Ecological of technological nature	90,9	100,0	100,0	100,0	100,0	0,0	100,0	100,0
	Ecological of social and organizational nature	25,9	0,0	0,0	0,0	25,0	0,0	100,0	100,0

Source: Own made, based on interviews with enterprises (2017-2020) From: Gallego and Tapia 2021.

The spur to change from a horizontal, inclusive and sustainable network of actors driven by the values of SSE

Dissimilar to the conservative network dynamics by the large and powerful political and business groups, a territorial transformative network emerges (Berdegué et al, 2015; Gallego & Tapia, 2021). The diffusion effect of this transformative net is vital because, unlike the powerful lobbies of the conservative network, they do not depend so much on the political-economic negotiation power, as on their ability to recruit new actors and locally rooted knowledge, and from their relationships with each other. The actors that form this transformative network are small and medium farmers, local associations and local SMEs (suppliers of sugarcane, bio-mass, raw material and packaging, biofuel, healthy and / or traditional foods, export services, administration, IT and logistics for resident companies), as well as regional universities that favor the integration of local knowledge preparing professions ingrained in territorial needs, with a more technical profile. Although many of these SMEs are not formally, but in fact (because they follow the principles of internal work organization) entities of the SSE. These ventures assume horizontal and non-hierarchical forms in their structure, so then stimulate the internal participation of all members, placing them sociologically very close to the SSE (SMEs Interviews 2017-2020).

Table 2. Different democratic and relational values appreciation

	Cooperation	Trust	Capacities acknowledgement	Transparency	Influence relationships
Actors total on absolute values (AV): 45	15,6	17,8	17,8	55,6	24,4
A) Government actors AV: 4					
CONADESUCA	25,0	0,0	25,0	0,0	0,0
CIDCA					
SEP					
City officials					
B) Group of conservative actors AV: 34					
Farm supplier producers & services AV 28	0,0	14,2	7,1	35,7	21,42
Sugar mills AV: 6	0,0	0,0	0,0	33,3	50,0
C) Group of Innovative actors AV: 7					
Services, trade & piloncillo makers	85,7	57,1	71,4	71,4	28,6

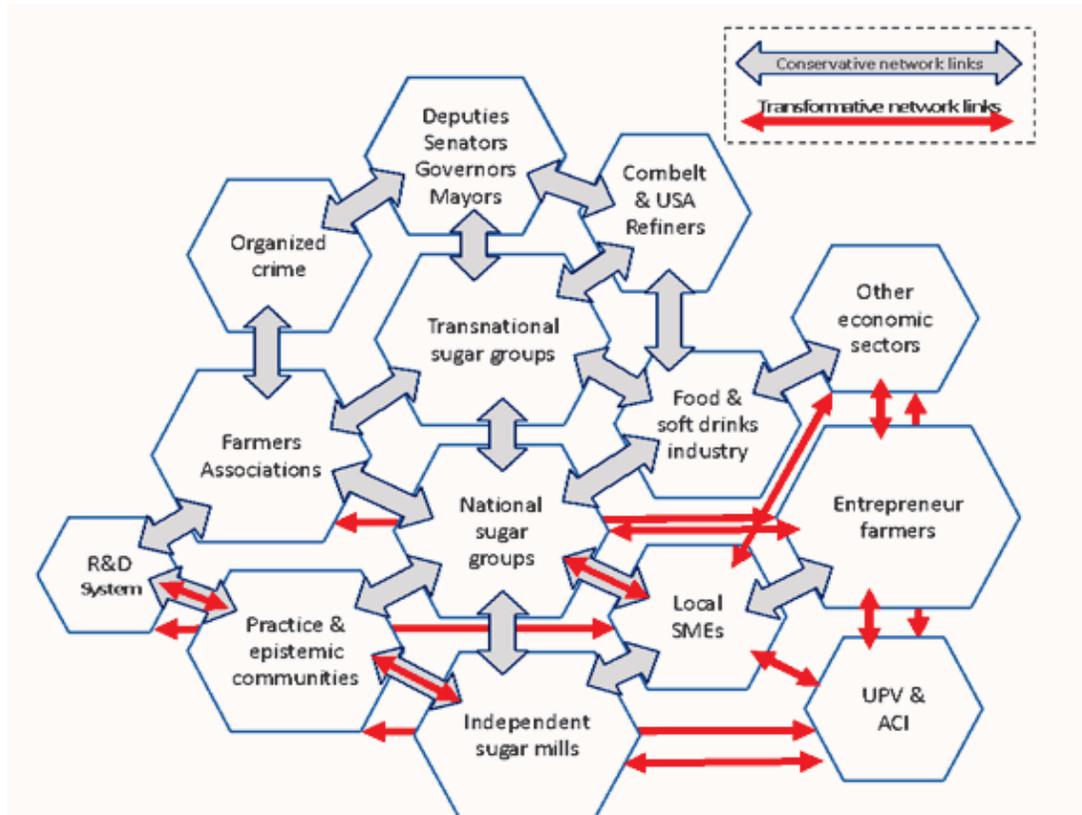
Source: Own made, based on interviews with actors (2017-2020).

The actors in this transformative network are cross-linked with other economy sectors, by proximity and affinity (see table 2) mainly with groups more committed to cooperation. In this second network, proximity generates inclusive innovations, with actors and knowledge rooted in the territory and mechanisms of agglutination around proximity (geographic, social, organizational, and ethical) to egalitarian values (cooperation, trust, capacities acknowledgement, transparency) and environment protection (Gallego and Tapia, 2021).

Linked by this vision, members of SSE local associations (such as the Unión de Piloncilleros de Veracruz (UPV) and the Asociación de Cañeros Independientes (ACI) and other actors who are not part of the SSE, but who share some of its principles and values, are connected. The actors meet, organize and offer their goods and services among themselves, creating a shorter supply chain and a more circular sustainable (socially, environmentally and economically) development process within the territory.

The UPV was created in 2005 with approximately 200 medium-sized cane producers/owners from the municipalities of Huatusco and Zentla Veracruz. They are artisan manufacturers of piloncillo (artisan sweet) that saw the need to rely on a quality standard/certification for their manufacture. This standard/certification requires that 100% pure cane juice is used to obtain a culturally recognized product of high nutritional quality, using renewable energy, thereby creating a cycle that protects the ecosystem. The associates are professionals and entrepreneurs who grow sugar cane and, unlike the small owners (ejidatarios) obtain better yields in their crops, and hire harvest groups (workers who organize informally). Jointly they diversify their yields with other crops, livestock and trees to serve specialized markets that demand quality and natural products. This association enabled them to take advantage of their personal relationships (neighbors, relatives and colleagues) and cultural identity (most are descendants of Italian migrants or their neighbors), coordinating their knowledge and vision of development to solve the problems they are faced with (intermediaries, health, environment, transparency, employment, security...). The partners strengthened the density of their relationships by including some small farmers (ejidatarios) and expanded into a series of activities (commerce, transportation, leisure, services) that broaden the value chain within the territory. At the same time, through the USMCA, they are engaged with markets, practice and epistemic communities in the USA and the rest of the world. Driven by the same values and vision that brings together the actors of the transforming network, based on proximity (geographical, social, organizational, and ethical), other small and medium-sized sugarcane producers tired of corruption and few benefits they obtained from depending on forcibly one of the producer associations (CNC y CNPR), belonging to the Institutional Revolutionary Party (PRI) they joined in independent associations. As for example, in the municipalities of Omealca Veracruz and surroundings, the ACI (Asociación de Cañeros Independientes) was created, with the support of another political party. The purpose of this association is to provide greater transparency of the management of the resources that are used to improve the harvest yields. (reduction of waiting time to unload, detection of pests, supply of implements, shared load transport ...). The ACI also coordinates health campaigns, scholarships for students, sports tournaments and participate in the village festivities.

Figure 1. Connections of the transformative and the conservative network



Fuente: Elaboración propia a partir de propuesta de la metodología Lean Startup.

The transformative net integration includes actors that can be considered intermediaries between the two polar networks (independent mills, R&D system, SMEs from other regions and from other sectors). The double actors that make up this intermediate network, are organized crosswise and horizontally, create relationships with other communities of practice, epistemic communities and markets that are sometimes coincide but often different from the relationships that the other two networks have. By including local knowledge, they carry out their own research, with local universities, with their suppliers, other professionals, and with other sectors and countries. The processes of these actors are also more transparent and specialized, using and developing local resources (human and material), which include a greater diversity of activities and, as a result, the products are more specialized and comply with international quality standards (SMEs Interviews 2018). Although the innovations that are produced here have an impact on the territory, very slowly they can reach diffusion/transmission (meso) in the context of violence and corruption that prevails in the territory.

SOCIO-ECONOMIC TRANSFORMATION CAPACITY INDICATORS OF THE SOCIAL AND SOLIDARITY ECONOMY

Previously, we developed an outline of the theoretical framework to represent the processes of territorial transformation promoted by the SSE. We offered a concrete illustration of this

SSE capacity for showing some features in the transformation process on Veracruz sugarcane cluster (Mexico). Now we will derive from the previous exercise a set of indicators of this potential SSE transformative impact on the territory. Next, an attempt will be made to build a system of indicators, in a dual sense of articulating the main aspects of the territorial transformation process promoted by the SSE with its different structural levels (micro, meso and macro). In summary, let's say that the main aspects of these process are the SSE's capacity to promote a transformation of innovation (inclusive and environmentally sustainable), linked with: the integrative capacity of its values, its organizational specificities (to host entities of a lesser degree) and, its territorial specificities (rooted in the productive system). And marking that the meaning attributed to the micro-meso-macro levels, is the one that we have given to the conceptual framework developed above.

Therefore, it is about generating a measurement and an indicators system that value and show not only quantitative but also qualitative importance of the SSE and, specially, its relevance as a lever for socio-economic transformation.

A system of indicators proposal

Micro indicators

- Presence of individual agency initiatives or processes that promote the generation of technological, marketing and / or social innovations (organizational and institutional) based on the SSE principles and values, whether they arise from entities that formally possess the SSE nature or not.

Meso indicators

- Presence of collective agency processes, either from within the SSE (second degree cooperatives, associations, foundations, social enterprises, etc.) or from the outside (universities and technology and research centers, public policies, especially local, etc.) that promote the diffusion and institutionalization of technological, marketing and / or social innovations. The essential condition to verify is that diffusion of these initiatives is encouraged from the SSE principles and values, whether or not their promoters have the formal status of SSE entities.
- Presence of leadership phenomena (private, public or mixed) on diffusion of technological, marketing and / or social innovations from SSE principles and values, whether they have the formal status of SSE entities or not.
- Creation of new communities of practice, epistemic and political, by the entities of the SSE, and / or with their participation.
- Existence of diffusion mechanisms via the SSE (through collective entities, such as second-degree cooperatives, associations, federations, etc.) of innovations not generated by SSE entities.
- Creation of new business networks by SSE entities, especially when there is a large presence of companies not formally belonging to the SSE.

- Creation of new business networks with R&D entities system or with other civil society institutions, specially with locally-based actors and global actors (from knowledge, markets, etc.) rooted locally (by the mobility of the people, etc.).
- Existence of regulatory mechanisms or coordination principles that support the process of institutionalization of socio-economic relationships on which the innovations generated, promoted, led or disseminated by the SSE are based. Strictly mercantile impersonal coordination (prices, supply and demand), reciprocity, fair trade, non-exploitative redistribution of work, non-extractivism, responsible consumption, recognition of the knowledge of other's, non-discrimination, etc.

Macro indicators

- Ability to disseminate the SSE's routines and rules of coordination to other actors besides the SSE.
- Capacity to disseminate the SSE values to other actors, other than the SSE.
- Although the latter are meso indicators, they are also macro in nature, because at the same time that they contribute to the diffusion of a set of new routines and innovations within a population (meso), they are redefining and expanding the population of actors that share them. Therefore, from a macro-structural perspective (different from a "simple" aggregation of actors that may share the same legal form, but have radically different innovative dynamics), the scope of socio-economic activities that follow a certain structural pattern is being expanding, whether they belong to the domain of the SSE or not.
- Arrival of intermediaries with the capacity to generate phenomena of individual and collective agency likely to define a confluence space (values, organizational principles, routines and institutions) between the different networks of private, public and mixed actors.
- Creation of meeting spaces between different political-economic networks.

DISCUSSION AND CONCLUSION

This article is part of the recent works that have defended the SSE's capacity to transform the economic model (Bouchard, 2009) and the institutions of socio-economic regulation (Richez-Battesti et al, 2009) as starting point and nucleus of assessment of the importance of the SSE.

In this case, our article presents as a novelty that it adopts an evolutionary and territorial perspective. This allows us to see in a new light this transformation capacity of the SSE and, consequently, the way to value and measure it. Thus, it is a question of deepening the research line opened by the works that have emphasized the importance of assessing the SSE's incidence beyond the direct weight that their entities have (Ebrahim and Rangan, 2014), the analyzes that highlight the importance of the transition from the micro to the meso (Ebrahim and Rangan, 2014; Coraggio, 2015; Saïd et al, 2018) or even the key role of its institutionalization (Spear, 2009).

What differentiates our article from these works is that it defends and provides evidence in favor of the hypothesis that the SSE transformation capacity goes beyond the importance of its entities, but its path cannot be limited a priori to stakeholders (interest groups) so does the "stakeholder driven approach" (Saïd et al, 2018). In effect, we advocate a "territorial driven approach" because we consider (as was theoretically and empirically evidenced) that the SSE effective field of influence (and, consequently, the stakeholders) cannot be defined a priori but are the result of a creative and open process of interaction of ideas, innovations and connections (Metcalf, 2002) driven by the territory itself. However, the fact that it is guided by the territory makes it not an indeterminate process, as Metcalfe (2002) argues, but only partially indeterminate. Indeed, it is shown that the SSE values are what allows it to expand its sphere of action, through a "transformative network" creation, that encompasses many more actors than the formal SSE entities, but it is selective. In other words, the cumulative sequences of innovations and connections, are essentially limited to actors who share worldviews and values, although these too are transformed by the process. This transformative network demonstrates the capacity of local actors to challenge the capture of SSE entities by the established political-economic network (Develtere, 1993; Lévesque, 2008; Tomás Carpi y Sánchez Andrés, 2017; Gallego and Tapia, 2019). This process is possible because SSE's entities (cooperatives, associations, etc.), and other entities that do not have the legal SSE form but follow their routines and principles of organization, are capable of generating creative processes around themselves. This includes not only innovations generation, but also their diffusion among a wide spectrum of actors in the territory. These actors are progressively enrolled in the new network. This enrollment occurred through a set of communities of practice, epistemic, and political, that are based on (and contribute to extend) shared expectations, worldview, and values. In addition, this process supports the anchoring of the SSE in the production system. This means that inclusive and environmental innovations (for example, industrial ecology) have a greater scope than has been considered so far in the literature. Indeed, as the Veracruz sugarcane cluster (Mexico) case shows, inclusive innovation allows actors to emerge and enroll in the transformative network, whose resources, knowledge and relationships have been marginalized from the productive system until now. Transformation that goes far beyond redistributive processes in the form of helping disadvantaged actors (Coraggio, 2015). This transformative network that was formed in Veracruz also promotes the adoption of industrial ecology innovations through inter-sectoral cooperation between actors based on organized proximity. (Gallego and Tapia, 2021). Ultimately, it is the endogenous linkage of the SSE that gives it this enormous and at the same time open potential for territorial transformation. But the development of a micro-meso-macro approach allows us to advance our understanding of the (dynamic) forces that guide this process.

All this has allowed us to produce an indicators system to assess the impact of SSE. Even though the micro diversity is the engine of change, what really makes it possible is the meso field because it allows it to amplify and institutionalize innovations. Hence the emphasis on this type of indicator. Now, we believe that a significant contribution of this article is the evolutionary reading of the macro level meaning, and that it acquires great relevance for this work objective. In this sense, the article argues that interaction between different networks or development paths (Hassink et al, 2019) is favored by the emergence of intermediary actors capable of generating a type of (more general) principles and values

that are partially shared by a broader range of actors. This new actors' arrival can increase the macro scope (of structural coherence) of the different evolutionary trajectories. In this sense, one of the possible keys to the boom that the SSE is acquiring is that its principles and values are being disseminated to ever wider layers of the socio-economic system. This is evidenced in some clusters of developing countries, but also of developed countries and whose comparison opens an important field of future research.

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