THE IMPACT OF INTER-FIRM NETWORKS ON REGIONAL DEVELOPMENT: TOWARDS A MEASURE

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Abstract

Cooperation among firms can be analyzed from different theoretical perspectives. The objective of this paper is to frame the analysis of firms' networks according to the local economic development approach. Since fostering cooperation between firms is one of the main elements of local economic development, the objective of this study is to identify the activities and strategies of some Brazilian inter-firm networks that lead to stimulating the dynamics and development of their territories of influence. We provide a theoretical and descriptive analysis to characterize some elements of local development and inter-firm cooperation so as to identify the possible impacts of business networking at a regional level.

Resumo

A cooperação entre empresas pode ser analisada desde diferentes perspectivas teóricas. O objetivo deste artigo consiste em enquadrar a analise das redes de empresas de acordo com a perspectiva do desenvolvimento econômico local. Dado que o incentivo á cooperação entre empresas e um importante elemento das políticas para o desenvolvimento econômico local, este estudo identifica algumas das estratégias e das atividades de algumas redes de empresas brasileiras que estimularam à dinâmica e o desenvolvimento dos territórios sob os quais exercem influência. O artigo apresenta um analise teórico e descritivo que permite

caracterizar alguns dos elementos do desenvolvimento local e cooperação inter-empresarial para identificar os possíveis impactos do associativismo ao nível regional.

1. Introduction

Inter-firm cooperation is an important tool to foster small and medium sized enterprises' (SME) competitiveness (Wittmann et al, 2008; Bacic and Souza, 2008; Fuller-Love and Thomas, 2004; Kosacoff and López, 2000; Oughton and Whittam, 1997). For more than 20 years, inter-firm cooperation has been considered a corporative strategy, but only recently has this strategy become more important. We can find different types of cooperation and different concepts, for instance alliances, networks, industrial districts, clusters. Broadly speaking, the network concept refers to a grouping of firms. Building networks presumes that a set of interrelated firms is more efficient than a stand-alone firm or isolated firm, due to the networking effects among each other. In general terms, the construction, running and the failure phases of the network depend on three basic aspects: trust, competency and ICT inter-organizational integration (Casarotto Filho and Pires, 2001). RedeSist, in Brazil, has developed the concept of "local productive arrangements" (APLs) and "a local productive and innovative system" so as to study the relationship between groups of firms as well as their link with other agents (economic, political and social) within a given territory (Cassiolato and Lastres, 2003).

An important theme in recent regional development literature has emphasized the role of cooperation among firms, especially in relation to SMEs, in the realization of local competitive advantage (Storper, 1997; Patchell, 1996). Regional clusters create regional employment and wealth and are thus promoters of economic and social development (Corral et al, 2006). Government policies for the clusters should recognize this potential which is often overlooked. After analyzing state policies for the APLs in Brazil, Garcez et al. (2010) endorse the need for a new generation of support policies that surpass random acts, based on the supply of traditional products and that are underpinned in the acquisition of knowledge so as to develop local productive and innovative capacities, in the development of local productive and innovative capacities, taking into consideration the economic, social, cultural and environmental circumstances of the territory.

Many theoretical interpretations have been made about the socioeconomic dynamism of some areas whose competitiveness is based on inter-firm cooperation and knowledge assimilation, and that successfully integrate in a more globalized economic system (Caravaca et al, 2005). Territorial development is conditioned by three different factors: innovation, cooperation among firms, and rational use of existent resources (Ramirez et al, 2006).

Different types of territories may arise whether local inter-firm networks exist or not, and are dependent on the innovative capacity of firms, institutions and the society as a whole. Those territories with established networks are usually considered as emergent territories (Caravaca et al, 2005) and behave more dynamically and competitively.

We can observe different network case studies. In some cases, local policy promotes inter-firm cooperation. One example is the development of the Nova Friburgo network in Brazil. In 1998, the SEBRAE/RJ (Service for the Support to the Micro and Small Companies in Rio de Janeiro), together with the FIRJAN (Federation of the Industries of Rio de Janeiro), conducted a study that revealed the strong presence in the region of hundreds of small companies, very concentrated, and specialized in the sector of lingerie confection. The study recognized that most of companies were rather disorganized with regards operational processes and most of them did not even have any formal organizational structure. As a result, the efficiency and effectiveness levels of these companies were very low. Thus, a regional project, encompassing all local companies, was initiated with the aim of creating adequate conditions to foster export trade levels through production networks and to transform the region of Nova Friburgo into a recognized international pole specialized in lingerie (domain). Therefore, the appearance of this specialized production network was not a natural development, having been induced, organized and fomented by diverse support institutions, especially SEBRAE (Azevedo and Faria 2006). Although a proper evaluation is required, this network seems not to promote local development as can be seen, for instance, by the lack of qualification and the low level of education of the entrepreneurs and the presence of barriers to the entrance of new technologies.

However, some networks emerge spontaneously without an induced local policy. This is the case of a network of pharmacies in Brazil. Independent pharmacies joined forces to buy medicaments after the economic changes of the Real Plan. By networking, pharmacies discover a way to compete against the largest private chains (Varisse, 2007).

Even though there is a strong interaction between the development of networks, clusters and territorial system (among firms and local institutions without a sectorial focus), these are not necessarily sequential. At network level, some difficulties are the complexity of managements and bureaucracy to legalize collective enterprises, weaknesses in business management and in the connections with local institutions, and the reluctance of owners to share knowledge.

Geographic proximity is not a sufficient condition for building networks. Souza and Bacic (2002) examine the agglomeration of firms from the third generation petro-chemistry chain. In the Grande ABC Paulista region, the presence of a large number of proximate firms from the same economic activity and, to some extent, involved in the same history and tradition, is not a decisive factor for cooperation.

According to this general frame, the objective of this paper is to contribute to the theoretical and operative discussion on the influence of one of these mentioned factors: cooperation among firms as a means of improving society’s quality of life and economic development in their areas of influence.

To carry this local development process forward, the participation of agents, sectors and forces, which interact within the limits of a certain region, is crucial (Casanova, 2004). Agents should share a common project of economic growth, equity, social and cultural change, ecological sustainability, gender equality, and spatial and territorial equilibrium, to raise the quality of life and welfare of the population. These socially responsible activities are considered a source of local development. Thus, they should be taken into account for a better understanding of the impact of networks on local development.

The goal of this research is to explore whether inter-firm cooperation helps overcome several of the limitations and challenges associated with some territories and strengthens the comparative advantages of certain places to promote local development. This strengthening will depend on what are known as ‘endogenous’ factors, that is to say the local economic network, the human resources of the place and the local institutional framework. The socio-economic condition of a place can be strengthened or not by the local economic network, if other conditions are present at the same time.

A substantial part of research on socioeconomic and territorial changes includes the idea of a space integrated by flows and networks. Many disciplines have studied this phenomenon: sociology (social interaction dynamic and socio-institutional networks), economics (inter-firm networks) and geography (territorial networks). For the purpose of this article, we sought contributions from economics and geography, building links between them. The analytical starting point consists of using the theoretical framework for a better comprehension of local development and the role of inter-firm networks in promoting it. The paper is organized as follows. In section 2 we provide a theoretical analysis that allows us to characterize some elements of local development and inter-firm cooperation. In section 3, we offer some possible indicators to measure the impacts of business networking at a regional level. Finally, we mention some contributions of the paper.

1. Theoretical background

Cooperation plays an important role in the survival of many small and medium sized businesses (Fuller-Love and Thomas 2004; Rauch 2001, Kosacoff and López 2000; Oughton and Whittam 1997). The network structure facilitates the common use of resources. The adoption of common standards, exchange of information and shared use of common facilities are all examples of cooperation in which firms may increase their profits.

Building networks suppose that a set of interrelated firms is more efficient than a stand-alone firm or isolated firm, due to the networking effects among them. The basic idea is that the positive feedback and membership value of a network depend on the number of already connected firms. This fundamental proposition from the information economy (“it is better, ceteris paribus, to be connected to a larger network than to a smaller one”) takes the form of networking effects.

The network structure enhances the common use of resources. For instance, firms share their relationships with suppliers, technology and customers. If resources face scale economies (or scope) that cannot be exploited efficiently through market or contractual relations, it can be efficient to associate in order to capitalize these economies (Balestrin and Vargas, 2004). Some authors from the Resource Based View (Liebeskind et al, 1996; Powell et al, 1996, Powell, 1998) state that firms should not ignore that inter-organizational networks are a competitive advantage source apart from internal resources.

Porter (1999) shows how industrial agglomerations constitute an effective mechanism for regional development and sustainable competitive advantages to become progressively dependent on local factors.

Bacic and Souza (2008) argue that the motive, complexity and integration factors affect the probability of a network's dissolution. Those inter-firm networks with a higher initial commitment of their members are more likely to survive due to the integration of their actions, compared to networks not built with a high commitment.

From the perspective of local development, networking is a key factor for innovation and territories' dynamism, and affects, directly or not, the functioning of productive systems. The recognition of the transcendental importance of networks in the territories' competitiveness is observed in the socioeconomic researches: inter-firm cooperation enables the construction of business systems that seek competitive and innovative neighborhoods. This process occurs taking advantage of certain territorial externalities deriving from agglomeration, and also by taking advantage of territorial business tradition (Narvaez et al., 2008; Caravaca et al., 2003).

Inter-firm networks are a necessary but insufficient condition for local development. Therefore, the effect of inter-firm cooperation on territorial development will depend on the relationship with other social agents. In a review of the theoretical background of the local economic development focus, Vázquez Barquero (1997) refers to development carried out from the economy by the school of endogenous growth. Some of the conclusions that this perspective entails have been incorporated into relatively more recent theories of endogenous development. The growth perspective and the perspective of endogenous development share the vision that productive systems consist of a group of material and non-material factors which allow local and regional economies to adopt differentiated paths towards growth for development and that therefore, there is a space for regional and industrial policies. Vazquez Barquero (1998) argues that building a local productive system of many firms (most of them SME) specialized in one single product in a territory, fosters exchanges in multiple markets. This causes the emergence of external scale economies, but internal to the local productive system, and the reduction of transaction costs. These externalities cause increase returns and, therefore, promote territorial economic growth. The local development perspective assumes the importance of local productive systems for processes of growth and structural changes in territories (Narváez et al, 2008).

Albuquerque (1997) states that local development can be understood as a transformation process of the economy and local society to overcome obstacles and challenges. It improves inhabitants' quality of life by means of local socioeconomic agents (public and private) whose activity seeks a more efficient and sustainable use of resources. Albuquerque (2004) argues the importance of considering development as a process instead of as a result.

In reference to local development, Porter (1990) wonders why there are concentrations of successful economic activity in some districts that are relatively small and not in others. He observes that firms do not come into being independently but that their development is conditional upon a national environment which supports and cultivates competitiveness.

Porter identifies four interrelated factors which are of crucial importance for a nation, district or local area to attain a competitive advantage. The first of these is the basic resources or conditions that the comparative advantage is based on, in other words, land, workforce and capital. To this group of factors, which are very difficult to replicate, Porter adds a second point. There should be a healthy demand of local or national consumers which tends to create conditions and cultures connected to the product or service generated at local or national level. The third factor is territorial proximity and, more specifically, the creation of clusters or groups of units of production and suppliers around a particular industry or service. Finally, the fourth factor has to do with the institutional framework and trade practices which contribute to creating certain and stable rules of the game that are important both for investment and for the development of competitive advantages.

These four factors constitute what has come to be called the ‘diamond’ of competitive advantage in local economic development. Based on consideration of these factors, authors like Ickis (1998) have identified the obstacles that can impede local economic development. These obstacles would be (a) excessive dependence on the factors that generate comparative advantages, (b) the distance of consumers (in a spatial sense, but also, and more importantly, in terms of communication and information), (c) ignorance of relative position in terms of the market and (d) inadequate forward integration and a lack of cooperation in the industry.

When referring to local development or territorial development we must stress the importance of four main dimensions (Gallicchio, 2004):

- Economic: related to creation, accumulation and distribution of wealth.
- Social and cultural: meaning quality of life, equity and social integration.
- Environmental: refers to natural resources and sustainability of models in medium and long term.
- Political: territorial governance, a specific, independent and sustainable collective project.

Although there are different types of networks: strategic alliances, joint ventures, manufacturer networks, clusters, industrial districts, among others, the concept of cluster seems to dominate among the categories related to regional and local development. In Latin America, international organisms such as the IDB (Interamerican Development Bank) or the WB (World Bank) foster the consolidation of clusters through the promotion of regional competitiveness programs. Moreover, the UNIDO (United Nations Industrial Development Organization) clusters’ projects have stimulated innovation of products, processes and productive functions, facilitated the access to new markets and contributed to the creation or strengthening of institutions (by building collective norms and organizations).

Filippi and Torre (2003) distinguish between networks that emerge as a spontaneous grouping of firms towards common projects, and networks developed or structured by public or private organisms to support networking (Ramirez et al, 2006).

Local development is a process oriented by the action of different agents and it rarely emerges spontaneously (Cavestany, 2000). This requires a complex form of governance, involving key actors concerned with the development of the region and selected productive sectors. In this light, local development projects involve a large number of institutional actors and firms, which usually do not have pre-existing mechanisms of coordination, and are inevitably locked in historic patterns of interaction. Governmental institutions can act as intermediaries to promote the development of trust among the interested parties (Street and Cameron, 2007).

The existence of local leaders coming from cooperation networks can induce local policy if there is local support. If a region cannot overcome the weak articulation and coordination capacity among firms, it will not be possible to build the required local leaders and institutions to take advantage of interactions and common projects (Souza and Bacic, 2002).

Mendez (2001) identifies the presence of pioneers in the successful local development experiences. Local agents' presence and cooperation networks are strategic resources for local development. Da Silva (2005) mentions the case of GOPAN (group of tourism operators from the Mato Grosso do Sul State) association built as a result of SME tourism operators' union.

Madoery (2001) analyzes three types of policies: first generation (to improve the local attractiveness: improve infrastructures, capture investments, industrial parks building); second generation (to improve entrepreneurship and allocate exogenous and endogenous resources) and third generation (associative processes and cooperation for development). In this respect, networks can impulse policies of second and third generation, and therefore, territorial competitiveness (Varisco, 2007).

Romis (2008) explains that the experience of the industrial cluster and supply chain projects underlines the importance of three factors—project governance, territorial assets[1], and public-private collaboration—that were overlooked in the cluster approach. These

[1] These factors, also identified as *territorial assets*, include the raw material and natural resource base of a region, the local pool of skilled and specialized labor, the region's pool of R&D institutions, and the provision of public goods in the region (Romis, 2008).

factors need to be included in a more encompassing territorial approach, in order to achieve broad local development objectives.

Narvaez et al (2008) conclude that by building trust, promoting inter-firm cooperation and cooperation between public, private and community organizations, fostering specialization and innovation processes through sharing knowledge and competences, the firms and the whole territory performance can be improved.

2. Measuring inter-firm impact on local development

To determine the effects of inter-firm cooperation in local development, we need to know which (and how) are the characteristics or factors that determine if we are in complex and dynamic territories towards competitiveness and development, or if there are simple productive agglomerations. On the other hand, which are the specific local productive structures, and their internal changing socio institutional structures of power that operate in a non harmonized or inclusive manner (Mackinnon *et al.*, 2002, Hudson, 1999).

To achieve the objective of determining the impact of inter-firm cooperation on territorial development, we must base ourselves on the explanatory factors of local development. We need some measures or indicators of local development.

According to Castellanos (2005), we can distinguish some different features present in successful experiences of local development (Narvaez et al, 2008):

- Most of the firms employ local resources of different types: human, financial, entrepreneurial, natural, and territorial.
- Most of the firms are small and medium sized enterprises.
- Most of the firms belong to traditional sector.
- Most of the firms belong to advanced technological sectors.
- Firms from traditional sectors are disseminated throughout the entire region.
- Firms from advanced technological sectors are geographically close to big cities.
- Plenty of a low cost- artisanal qualification labor.
- Under the control of local institutions.

- Firms are between individual initiatives and public support.
- Consider that soft help (information, improving plans) is more useful than hard help (subventions, discounts).

From the recent local development perspective (Caravaca, 2005), successful experiences also mean that:

- Local networks are linked to external networks, not just linked to local institutions but also to foreign institutions.
- There is an institutional implication in performing mutual projects.

The joint evaluation of regional development indicators needs to take into account many factors and to employ reliable indicators (Rambo and Ruppenthal, 2004).

Table 1. Regional development indicators

Factors	Indicators
Social	Inhabitants density, poverty index, …
Economical	Gross Domestic Product (GDP), Per capita Income,..
Educational	Level of Schooling, literacy, ..
Health	Children mortality,
Cleaning up	Potable water, litter treatment, …
Environmental Sustainability	Air pollution, forest cover, …

Source: Factors and indicators of local-regional development (Rambo and Blume, 2003).

Economic Indicators

Some economic indicators can specify the relative importance of a network activity, such as the percentage of sales, exports, number of employees, investment. According to Pereira (2006) the economic indicators include the relative participation of the different economic activities (services, agriculture, industry) of each territory in its GDP. Similarly, we could also measure the relative participation of the networks in its GDP territory. Moreover, it is possible to analyze its evolution.

We can also ask to what extent exclusive consideration of the kinds of economic activity that are concentrated and combined in certain regions under network projects constitutes a factor in explaining their development processes. Some authors such as Markusen and Schrock (2001) think that a focus on occupations has greater explanatory power than a focus which is exclusively on industry (Casanova, 2004). This is based on the idea that the education, location and migration of people with specific competencies connected to occupations or families of occupations are more important than the location and migration of installations, firms or industries. The conclusion is that insofar as it is a base for stimulating local economic development strategies, regional economic analysis has to take into consideration not only the presence and structure of economic activities but also the specific occupational configuration of the region. The latter does not only include the current sectorial orientation of the labor market but also its composition by occupational levels (managers, middle managers, technicians, professionals, manual workers, service workers, entrepreneurs) and the levels of qualification in that market (from the highest levels of specialization and qualification to unskilled labor).

Below we observe some economic indicators of the Consorcio BHP (a group of firms of industries of medical and dentist equipment located in Ribeirão Preto, São Paulo. The purpose of the consortium consists of the internationalization of their products).

Table 2. Economic indicators of the Consorcio BHP

2000	**2001**	**2002**	**2003**	**2004**
Employees				
524	510	521	597	712
SalesR$				
41.708.548,59	45.335.522,08	50.957.059,90	54.510.230,16	72.960.198,10
ExportsU$				
607.080,76	793.751,77	1.355.774,19	2.166.995,02	4.991.472,62

Source: Barbieri Lima et al, 2004.

The best strategy would be to measure the network results against the rest of the sector over the period, to determine the relative importance of the network and examine its sectorial contribution. The years of functioning of the networks matter since most socio-economic effects are medium to long term. The table below offers information on the relative position of a network initiative called Uva Isabella compared to the sectorial information.

Table 3. Uva Isabella - % Growth

Period	Beneficiary Firms	Employment	Production	Productivity	Sales
2001-2004	320	100%	24% [1]	40% [1]	
2001-2005	320	NA	48% [1]	60% [1]	260% [2]

1. Growth relative to the rest of the sector.
2. Growth measured in absolute terms for the beneficiary firms

Source: Romis, 2008

We can examine whether networks have an important effect on wealth and employment in their geographical areas of influence. Besides this, when analyzing the quantitative effects of networks we must distinguish between direct and induced effects. Direct economic effects come from final demand increase as a result of productive activity in the network. Induced effects are those generated in the region as a result of the multiplicative effect over the regional economy income and employment.

Social indicators

Local development and the socio-economic effects of networks are beyond the scope of economic indicators. There is a need to include other kinds of measures.

When stimulating local development, it is essential to bear in mind that any action must allow connection to markets, sustainability by means of a pattern of organization sustained over time, the promotion of areas that include micro and small businesses in a market with distribution of wealth, and the raising of social capital through promotion and cooperation among the local agents. It is also essential to create access to public goods such as education and health, to preserve the environment, to value the local history and cultural heritage, to get local people involved, to form alliances with other actors, to move public and private resources, and to attract public or private resources complementary to those provided by the local actors.

The cluster literature has historically tended to focus on issues relating to the competitiveness of firms, especially small and medium enterprises (SMEs), based on the economic advantages that clustering could engender, and the ways in which local institutions and local governance can add to these advantages through joint action. However, what is often neglected by researchers and policymakers is the fact that in many cases small firm clusters cater to, or provide employment for, the poor. They make social activities link to social economy.

Nowadays, there are some initiatives to measure firms' social impact. In 2006, the World Business Council for Sustainable Development WBCSD in collaboration with more than 20 member firms began a process to develop a methodology to measure private sector contribution to development. However, there are no experiences of measuring the impact of activities perform by inter-firm networks.

In general, there is scant literature on the contribution of firms (in particular Latin American firms) to socially responsible activities. Moreover, there is a lack of literature about the socially responsible activities of alliances or networks. The new European Alliance for Corporate Social Responsibility (CSR) proposed by the European Commission is intended to aggregate associations, networks, SME and microfirms.

Firms must not merely obtain economic gains but must also bet bid for social and environmental gains. Those firms that ignore social and environmental responsibility will not be competitive in the long term (Moreno and Serra, 2009).

CSR seems to be a strategy to confront the new challenges and to promote long term collective initiatives where firms participate actively in association with local and national authorities, and with civil society organizations. In this sense, CSR becomes a tool to harmonize the divergent interests and promote local development (Heincke, 2005).

Firms in networks can perform activities that contribute directly or indirectly to social goals in their areas of influence. Broadly speaking, people concerned with cluster development are usually concerned with things such as growth and competitiveness, collective efficiency, local institutions, social capital, global buyers, and, more recently, the ties between local clusters and global value chains. On the other hand, people concerned with poverty reduction are generally concerned with income, employment, vulnerability, risk, participation, empowerment, social protection, and social provisioning. In other words, there is a theoretical dichotomy between these two sets of framework. In order to bridge them, there are some important questions that need to be answered, such as whether clustering raises employment for the poor, reduces vulnerability and risk for firms *and* labor, promotes compliance with labor, social, environmental standards and CSR, and whether cluster upgrading has positive outcomes for the poor (Romis, 2008).

For instance, in Brazil, the Institute of Applied Economic Research (IPEA) analyzes inequality and income concentration by means of Gross Domestic Product (PIB in Portuguese) and the PIB at local level (city level). The last results (2010) show that 40% of the poorest localities account for barely 4,7% of the Brazilian PIB. They conclude that Brazil must have a national policy for local and regional development. It is important to promote economic development in those weakest localities. There are also indicators of housing and cleaning up. In Brazil, according to the National System of Urban Indicators (2002) we can find information about the availability of potable water at a local level.

By means of these indicators, we can analyze the relationship between local development and cooperation among firms. Therefore, if inter-firm cooperation is one of the sources of local development, we could analyze empirically the relationship between localities by the density of the firms' networks and their PIB per capita, to show if those poorest localities are those where cooperation at firm level is lacking.

Most firms at individual level (irrespective of size, economic activity) already impact directly on the development and economic welfare of their cities. Besides, these firms can firmly contribute to the improvement of economic, social and environmental conditions of their regional areas. An example is the contribution of firms to the Millennium objectives. However, the character and extent of their influence can depend on some factors, such as if firms belong to an inter-firm network.

Corral et al (2006) select some clusters with different levels of consolidation. There are clusters with a relatively important productive and entrepreneurial consolidation, either with a well defined institutional structure (the mining cluster of Antofagasta) or not (the footwear Brazilian industry). In any case, all clusters are dependent on their specialized productive sectors. In most of them, we observe the presence and participation of some large firms that drive the economic growth of their regions and are involved in the social development of their areas of influence.

The firms’ participation in socially responsible practices is common knowledge. Corral et al. (2006) create a wide list of activities developed by member firms of some particular clusters that contribute directly to the achievement of the millennium objectives in their regional areas of influence. In general, firms show a low level of knowledge on social initiatives.

These clusters concern poverty eradication, as well as access and quality of education. On a second level, they implement activities for health improvement. On a lower level of implementation, these clusters perform activities related to sustainability, the environment and gender equality.

From a qualitative perspective, the authors argue that the presence of an alliance between public sector, private sector and civil society organizations is a strong factor that fosters the success of social activities made by firms in network. It is important that most of private actions developed by firms were involved with public programs on a regional or national level.

One of the problems is that the effectiveness of the networks’ “socially responsible activities” depends on two factors that are not always present in networks where SME prevail. Firstly, the presence of a large firm, acting as the engine of others (suppliers, contratists) in respect to social and environmental activities, fostering social development of their territory. Secondly, the existence of a solid institutional structure to guarantee the effectiveness of the social activities, to combine efforts in a coordinated manner and to avoid individual or isolated actions from firms.

The presence of a large firm in a network project could be an important way to promote the ideas of social responsibility, which is still not present in many SME in Latin-American countries. In Brazil, for instance, the footwear cluster lacks a solid structure for social activities.

For instance, a list of possible social activities is:

- To eradicate poverty and hunger.
- Achieve universal primary education
- Promote gender equality and empower women.
- Reduce child mortality
- Improve maternal health
- Combat diseases
- Insure environmental sustainability
- Develop a global partnership for development

Network firms can support social investment, moving competences and resources available at network level to support the local areas or cities where they operate. Activities could be:

- Collaborate in educational, environmental, nutritional projects to help groups with special deficiencies.
- Build and consolidate entrepreneurs and new local entrepreneurial initiatives.
- Improve the access of firms and individuals to new information and communication technologies, ICT.

In some cases, activities can influence different fields of interest, for instance to improve education, nutrition and gender equality at the same time. Besides, the activities performed can improve the external conditions of the network (the community in general) as well as inside the network (their employees).

In Brazil, the Ethos Institute collects experiences of social responsibility of Brazilian firms that contribute to the achievement of the millennium social objectives. In what follows, we build a list of local development indicators based on the literature and Ethos's indicators.

A. Socio-Economic impact
   1) Sales, exports, GDP contribution, employment.
B. Values and Governance
   1) Behavior Self-regulation: ethical commitments, embedment in organizational culture, corporative governance.

2) Transparent relationship with the society: dialogue with stakeholders, relationships with competitors.
1) Dialogue and participation: Relationship with unions, participative management.

C. Environment
   1) Responsibility for future generations: Commitment to improve environmental quality, environmental education
   2) Management of environmental impact: forest sustainability. Flow (enter and exit) materials minimization.

D. Community
   1) Relationships with local community: management of firm impact, relationship with local organizations.
   2) Social action: financing of social action, involvement in social action,
      - Poverty and hunger: Support to schools' dining room, assistance to poor families, development of family farms, nutritional assistance to employees.
      - Education: provision of school equipment, scholarships, training programs, support to society on educational projects.
      - Respect for the individual: commitment to child's future (child mortality, nutrition programs, education) value for diversity (gender equality, empowerment of women).
      - Decent work: salary policy, additional benefits, health care, labor conditions, security, commitment with professional development (training programs, education).

E. Government and Society:
   1) Political transparency: contribution to political campaigns, anticorruption practices, gratuities.
   2) Social leadership: participation in social public projects, leadership and social influence.

We can examine if socio-economic indicators of the networks' areas of influence present a better performance compared to their national means. The hypothesis is that we suppose that firms in network can develop socio-economic activities that improve the territorial development. Since there are many indicators, and some of these divergent, a local development index could be a way for a better comparative analysis.

The socio economic objectives are larger than the capacities and resources available in alliances or networks, and many of them can only be solved with the support of the other local development factors, considering first the governments'. From this local development point of view, the participation of civil society, public and private sector is extremely necessary for a more effective and ample answer.

There are some reasons to explain why it could be "profitable" for networks of firms to follow socio-economic goals, especially in Latin-American countries. First of all, by contributing to local development, firms achieve a solid and sustainable neighborhood in which to do business, reducing risks associated with their economic activity. Besides this, a virtuous cycle is built where attaining local development promotes new entrepreneurships.

Contributions

The purpose of this study is to identify the effects of inter-firm cooperation for local development from a theoretical perspective. From the empirical view, the major challenge to identifying lessons learned from firms' cooperation projects is the lack of robust tools to measure whether or not such policies are successful at local level.

The literature on cooperation or networks has historically tended to focus on issues relating to the competitiveness of firms based on the economic advantages that clustering could engender. However, researchers and policymakers often omit the fact that in many cases small firm networks are sources for overcoming some social problems such as unemployment, lack of education, among others. Much research still needs to be done in this area, but the evidence of some network experiences suggests some initial conclusions. Inter-firm cooperation can have a direct effect on poverty by generating employment, income and well-being for workers within the network. There is still much research to do about the direct and indirect effects outside the network, at local level.

A better knowledge of inter-firm networks in promoting socio-economic development is not just a valuable tool for public policy but also for networks themselves. The problems studied are global, but firms in networks can contribute to attenuate or solve them from a local perspective. Through social interactions of local development, some regions acquire capacities for promoting innovation and entrepreneurship.

The paper addresses the need faced by many local policy makers to determine, according to national and local data availability and information, some core indicators that can help link data to local development drivers and link policy to drivers. Considering the wide diversity of indicators to measure local development, it could be useful to build an index.

Although this is a preliminary research study, we can infer that, despite the great expectations related to the development of inter-firm cooperation initiatives, it is important for the success of the network and for local development that entrepreneurs interact more between themselves, between the supported institutions, and with the civil society so that the networking projects become sustainable.

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