

STIMULATING REGIONAL DEVELOPMENT AND SME'S CLUSTERING : AN ALTERNATIVE FOR EMERGING ECONOMIES.

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ABSTRACT

This paper reviews the concept of clustering, there is an explanation of the impact of clustering on SMEs (small medium enterprises) competitiveness, and discuss the opportunities and barriers relating to the creation and development of productive cooperation network, under the industrial restructuring context and regional clusters in Brazil. Within the cluster it is also possible the formation of networks, co-operating for the solution of common problems and organizing the production cycle in related phases, it makes production more flexible and firms focus on just one or a few activities, becoming more specialized.

Keywords: Regional Development, Clusters, Small and Medium Enterprises, cooperation.

INTRODUCTION

Industry clusters and networks have gained significant attention in the literature to business networks, among policy makers and scholars alike, as an alternative and purportedly superior organization form to that of markets and hierarchies, to bring about economic growth through productivity gains based on collaboration.

The clustering and networking idea has been especially attractive as a means by which small and medium sized firms can collaborate to compete more effectively in the global marketplace. Formal policy mechanisms have been introduced in several development economies in recent years to address structural deficiencies and raise competitiveness by encouraging cooperation among small and medium enterprises.

Ingle (1999).

In a few words, this paper study two key elements must be evidenced: 1. Strengths, weaknesses, opportunities and threats change over time and space, because of changing competitive challenges, institutional frameworks, needs of modernization within the cluster and 2. The importance of private and public for stimulating regional development and clustering SMEs.

The role of small enterprises in economic growth is well recognized in Brazil. Regional small and medium enterprises should be knowledgeable about their strengths and weaknesses and be willing to co-operate locally in order to compete globally.

THE CLUSTER CONCEPT:

According to Porter (1998) clusters are geographic concentrations of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities. The idea of geographic clustering among firms that cooperate and collaborate for economic advantage is not new. Ingley (1999). While Porter's (1990) concept has gained prominence since the early 1990s as a potential vehicle for industrial and regional economic policy, the presence of this phenomenon can be traced back in history as far as the eleventh century to the medieval guilds and craft associations, with enduring cultural traditions in northern Italy (Putnam 1993), France and Germany.

More recent history notes the existence of industrial districts in the nineteenth century (Piore and Sabel, 1984). Porter's (1990) industrial cluster concept has provided the framework for the establishment of network initiatives in more than dozen development countries to stimulate economic growth and underpin dynamic among SMEs. Founded on the notion that there is a link between geographic industry concentration and international competitiveness, industrial clustering underlies the formation of national formal interventions such as hard and soft business networks which focus on building the connections that support the growth of world competitive international business.

The premise is that clustering and networking among smaller firms provides them with the potential to achieve collectively more than they could individually, in accessing and competing in world markets. Through interfirm linkages, smaller firms can build the capabilities of scale and scope that were once the domain only of large firms.

THE ROLE OF SMALL MEDIUM ENTERPRISES.

Usually, SMES are considered weak because of shortage of human and financial resources, scale inefficiencies, low market power. This is quite true, but especially for isolate firms.

The experience shows that SMEs, if grouped into clusters, can be successful and compete even with large firms. According to Bertini (1999) it is possible to list several dynamic factors contributing to the competitiveness of SMEs.

“First of all, especially in the initial stage of horizontal proliferation, clusters are characterized by strong internal competition, even by rivalry. The need to survive first, and to succeed later, move enterprises to reduce costs, to increase efficiency, to improve the quality of the products/ services, to reduce time-response to market, to look for new clients, markets, distribution channels. In a few words, competition generates competitiveness.

A second element generating competitiveness is the low cost of information and of product differentiation, due to the presence of a wide number of subcontractors, component producers, and to the possibility to efficiently manage the production process by pieces.

Third, SMES in clusters can focus their limited resources on just one objective, one product / service, a single part of the production cycle or of the value chain.

Fourth, when the cluster reaches a certain level of development, SMEs can exploit collective advantages due to their local concentration. Fifth, the more successful clusters can ensure high solidity to the industrial system and perspectives of related activities.”

Conceptualizing these elements, we can establish that SMEs working in clusters, even if risking a continuous selection process, are competitive because: They are focused in terms of business, competencies and resource destination; they development capabilities and relationships for quick and appropriate problem solving, They are advantaged by collective resourced, otherwise inaccessible for them; They work in a context of trust, in which, even smaller producers, feel protected and respected by the community.

REGIONAL DEVELOPMENT OF CLUSTERS AND THE SME'S SECTOR

The competitiveness of a particular region in a time of globalization of the world economy must be looked at from an international perspective. The international competitiveness of a particular country, economic sector or region, is always based on the competitiveness of the different businesses which function on the particular territory. Obviously, the real competitiveness of the active businesses is a result not only of internal conditions, but is the result of the complex and dynamic mutual influence of external factors, such as social environment, economic policy, business institutions, technological infrastructure, natural conditions, the geographical location, and others.

The need to development competitive SMEs has become crucial for achieving socio-economic stability and prosperity both in industrialized and in developing countries in the context of global competition. According to Goldman et al (1995) in the last two decades technological innovation has changed dramatically the mass production paradigm endangering the viability of many large firms.

Many are the forces that at changing the competition: market fragmentation, production on small batches, information capacity to treat mass of clients as individuals, product life time reduction, convergence between products and services, global production networks, cooperation and competition at the same time among enterprises, logistic infrastructure , incentive for corporation restructuring and pressure to internalize the social values predominant.

In attempting to adapt to this climate of increasing of uncertainty, turbulence and discontinuity within this complex competitive environment it is growing the diffusion of cooperative relations among enterprises. Passaro (1993). Thus, pushed by the same technological innovation and also using networks to organize economic activities many small business have become a major player in this new competitive arena in some regions of the world. This is what has made the Emilia- Romagna region of Italy one for most important of the world in small business development. What one case see in this region is that working in a cooperative way the small enterprises can remain small and more competitive. Casarotto and Pires (1998).

Looking at the various local development experiences it is possible to say that SMES development on the base of technical know-how, local relationships, new possibilities to access to the market, and reinforced themselves during the 70s, thanks to factor cost conditions that favored decentralize production models and firms proliferation.

Through some initial firms, resulted successful of the market and profitable, it generated a proliferation of other firms, trough the following, increasingly complex, mechanisms: Imitation , (entering in the same product/ business of already existing and

succeeding firms and generating an horizontal proliferation); decentralization (consensual or induced by factor costs conditions); clusterization (developing activities along the value chain, especially in the technological and in the service sector , engineering production, research, design, consultancy in the intermediate goods, components, complementary activities); Synergic diversification (producing a different product, or service for the same market of already existing firms, or approaching different groups of clients using the same technology).

DEVELOPING SME'S CLUSTERS IN EMERGING ECONOMIES

The development of a cluster of SMEs is not easy, nor a rapid process. It must be considered in a medium long term perspective. The critical point of a strategy for developing a cluster of SMEs is that it cannot be deterministic.

An important role, in fact, is played by the case and by spontaneous reactions, that may be different according to social conditions, culture and traditions, location, institutional context, economic and competitive environment. Anyway, for a cluster development strategy it is crucial to take into account the role of spontaneous activism and entrepreneurship of local forces. Developing SME clusters means enabling the local environment to stimulate people's entrepreneurship and SME competitiveness.

Small Enterprises and Economic Development

The relationship between job creation and enterprise size, namely whether small enterprises generate disproportionately more jobs than large ones has been the center of the attention given to small enterprises in recent years. The work of Birch (1979) has been very influential in changing government attitudes away from "the bigger the better" to "small is beautiful". Birch found that 67% of the new jobs in his survey were created by firms with fewer than 20 employees and that 80% were created by firms with fewer than 100. The proposition that small firms have a large if not vital role to play in job generation is now generally accepted.

According to Reynolds (1997), SMEs have a substantial presence in international trade. About 10% of all SME's (mostly in the manufacturing sector) were active in overseas activities. Within OECD member countries, 26% of direct exports were provided by SMEs (35% in Asian countries). Reynolds estimated that there are about 35,000 transnational firms in the world of which 20,000 have fewer than 500 employees, that is to say, they are SME's.

Regional Development

At the national level, there has been great interest in the role of small enterprises in regional development, specifically in the São Paulo State. According to Davidson et al (1995) the regions which have experienced the most favorable development of economic well-being are those that had a good mix of industries and business sizes, and whose business sector was characterized by a relatively rapid pace of change. One example of substantial regional differences is found in Italy (Pike, 1995), where regions of new industrialization like Emilia- Romagna with a heavy concentration of small firms, grew in prosperity, whilst regions of old industry like Lombardia and Piemonte, with a strong presence of large firms, declined. Collectively in some regions, SMEs have created a sustained competitive advantage for their region.

Relations in Co-operation

According to Plaggio and Chapman (1999), one route to competitiveness in the modern world economy is through groups of firms organized in a cluster. Some structures such as network are sometimes perceived as a third method of organizing economic activities, outside the market and the administrative hierarchy. Within networks, so the argument goes, firms have technological and production relations which give them the effects of scale, while at the same time maintaining flexibility of activities. Small and medium size enterprises functioning in networks of co-operation and clusters have a greater chance of obtaining competitive advantage, both on national and international markets. It can even be argued that the appearance of co-operative relations is becoming an important factor in the international competitiveness of the SME sector.

REQUIREMENTS FOR THE DEVELOPMENT OF COOPERATION NETWORKS AMONG SME'S

Based on Humphrey & Schmitz (1998) there are two ways to treat the risks: One is through the sanction that creates incentives, but also penalizes companies that don't act correctly. This is connected to the idea of opportunism. Williamson (1995). To this author, all companies have their price, all of them have their opportunism level. So, it is necessary to establish a formal agreement between the partners. The core argument here is the "transaction costs":

"Transactions involving uncertainties about their results are frequent and require investments in specific activities; therefore, these risks will tend to be internalized by the company (hierarchy). On the other hand, the simple transactions, not repetitive and those not requiring investments in specific activities will tend to be accomplished through the market (market transactions)." Williamson (1995).

So, in this sense, market and hierarchy refer to different forms of economic activity coordination. Meanwhile, there are coordination forms which are not assured by the company (hierarchy) neither by the market. They are exactly the result of cooperation among companies; they are the inter-firm cooperation networks, that are just based on confidence or trust.

Still according to Humphrey & Schmitz (1998), many economies don't succeed in development, because there isn't the minimum trust among their companies. This is very bad, as it is known how important is a company to become competitive by establishing partner relationship with others.

Trust as key element in the cooperation relationship, is a decisive factor, that allows the partners to respect the assumed commitments among the firms in the specific network, and it is also pointed out by other authors: Joly & Mangematin (1995), apud León (1998) present different aspects in this sense:

- the importance of the pre-existent social relations networks
- the importance of the mutual respect
- the learning of the relationship
- the importance of the reputation of each partner
- the risks involved in cases of opportunistic behavior, mainly in terms of the necessity of shutting out some partner from the network

- the learning of the social “savoir-faire”, among others

In brief, one of the most important characteristics of the transition from the mass production paradigm to the flexible one, is the possibilities to think about a balance between competition and cooperation among companies , in terms of entrepreuneuring strategies.

RESEARCH METHODOLOGY

Case study analysis was the principal means used to examine field data. A detailed questionnaire was create and applied. It included topics related to the enterprises current situation, cooperation profile, possibilities and concern regarding the creation of cooperative networks among them.

THE BRAZILIAN EXPERIENCE : RESULTS

Due to its great economic potentiality, the possibilities of inter-firm dynamic cooperation among the Brazilian companies seem to be multiple. These opportunities involve from the large companies or mega-corporations to the SME's , belonging to the industrial, financial, commercial or service sector in general. As an emergent economy with a potential consume market composed by 160 million inhabitants and with a US\$ 700 billion Gross Internal Product, the expectations of new direct foreign investments in Brazil should create an optimistic economical scenery.

One of the most interesting successful case of cluster in Brazil is the shoe industry in "Vale dos Sinos" region, placed in the Rio Grande do Sul State. In this case, the geographical proximity and the operating the same market operation provoke a greater independence degree among the partners.

In the São Paulo State, in terms of regional clusters it is possible to identify some industrial regions relating to some economical sectors. First of all there are three regions, which are specialized in shoe industry. The most important of them is the shoe industry of Franca, a medium size city located in the north of the State of São Paulo. This region is specialized in men's leather shoes. In that region it is possible to observe the predominance of SME's working together with some large companies as Samello, Sandalo and Vulcabrás, traditionally exporting companies. Garcia (1996) apud IPT (1998).

There is a strong predominance of SME's in this region (Franca). Among 390 shoe maker companies, 365 are micro or small ones (94% of all). Other 15 (3,8%) are medium size and only 10(2,5%) are large companies. In average terms, the companies work with 30 days of lead-time. The most part of the companies has low degree technology, using old equipment in general, and in some special cases of automation, they are rigid type, that is, not flexible production systems are used. Amato (1999).

The other region is Biriguí, a small town located in the center of the São Paulo State, specialized in children's shoe production, made of synthetic material. The third region is the city of Jáu, which produces women's leather shoes. In both cases (Biriguí and Jáu) a greater presence of SME's can be observed. This fact could represent a great potential to the inter-firm cooperation relationship among those companies.

The other predominant region cluster in São Paulo is the textile and clothing in Americana, a medium size city (placed 100 km northwest from São Paulo city). In this

region one can feel the intense impact of the commercial liberalization due to the imported articles, mainly those coming from the Asiatic southeast (China specially).

Besides these previously discussed cases - the shoe and the textile industries - it is possible to point out some other cases of developing regional clusters in São Paulo State, however there are only few studies about them until now.

One of the cases is the *High Technology and Science Park, in São Carlos*, a medium size city, 230 km north from São Paulo, where there is the most concentrated number of researchers per inhabitant in Brazil. This is due to the existence of two important public universities and some of the most important research centers of the country in that city. Since 1985 (date of the foundation of that Science Park), more than 50 small “*high-tech companies*” were created, most of them specialized in new material production to the industry, industrial equipment, computing, automation of process and equipment telecommunication systems.

In Limeira, a medium size city in the center of the state (almost 120 km northwest from São Paulo city), a great number of *jewel and costume jewel small factories* have been increasing the, for the last two decades. Due to the random development process of that sector during that period, the local city hall decided to implement an “*industrial district*” and an “*incubator of companies*” to take shelter for those factories (mainly in terms of the treatment of the waste water and the remaining material used in the production process), as well as to stimulate the local economy and create new investments opportunities.

There is a lot of other cases that could be studied as cases of regional clusters. But just to illustrate that tendency, some of them one could be mentioned: (Table 1)

REGIÃO	ECONOMIC ACTIVITY (Predominant Sector)
Ribeirão Preto	Graphics
Porto Ferreira	White Ceramics
Ibitinga	Embroidery (articles)
Itatiba	Furniture
Votuporanga	Wood Furniture
Jardinópolis and Itú	Red Ceramics

Table 1. Regional Clusters. Source: Sebrae (1996).

CONCLUSIONS

The development of a cluster of SMEs is not an easy, nor a rapid process. It must be considered in a medium-long term perspective. The critical point of a strategy for developing a cluster of SMEs is that it cannot be deterministic. There is no automatic and rigid relationship between policy interventions and their results as in the traditional, top-down policy approach. An important role, in fact, is played by the case and by spontaneous reactions that may be different according to social conditions, culture and traditions, location, institutional context, economic and competitive environment.

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