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Strategy and competitiveness of small and medium enterprises (SME's) in emergent countries: Brazilian cases

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Abstract

It is important to identify the many difficulties and problems, in terms of financial, technical-organizational and managerial aspects that small and medium enterprises (SMEs) must overcome in order to become viable and competitive, with the trend of globalization of national and regional economies, especially if these companies act in isolation forms in their respective markets. The aim of this paper is to propose a theoretical analysis of different forms of competitiveness of SMEs operating in different production chains. The real opportunities to develop and increase the innovative capacity of SMEs, in general, are based on real issues, from a new perspective of socio-economic development of regions and nations. Such opportunities are identified especially in the case of the State of São Paulo, Brazil, and this phenomenon may serve as reference for other regions, especially in emerging economies.



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Introduction

A key trend that has intensified in the modern economy, under the framework of globalization and industrial restructuring, it is with regard to the rescue of the importance of small and medium enterprises (SMEs) play in different production chains, as well as new forms of insertion of this category of enterprise (SME) in inter-organizational networks and industrial clusters (clusters of firms). In this sense, the formation and development of business networks are gaining importance not only to the economies of many industrialized countries, including Italy, Japan and Germany, and also for the so-called emerging or developing Mexico, Chile, Argentina and Brazil.

The aim of this paper is to propose a theoretical analysis of different forms of competitiveness of SMEs operating in different production chains. The real opportunities to develop and increase the innovative capacity of SMEs, in general, are based on real issues, from a new perspective of socio-economic development of regions and nations. Such opportunities are identified especially in the case of the State of São Paulo, Brazil, and this phenomenon may serve as reference for other regions, especially in emerging economies.

It is important to point out that this paper is an ongoing study and the results presented here have a preliminary character.



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The role of SME's: A brief historical review

Since the 70's are witnessing a shift in industrial organization, with the creation of industrial districts of the so-called Third Italy, the local production systems in France, Germany and the United Kingdom, the Silicon Valley in the U.S. or the networks of companies in Japan, Korea and Taiwan. SMEs in these regions began to incorporate advanced technologies in manufacturing processes, to change their internal organizational structures and to seek new partnerships with the socio-economic environment so as to constitute an industrial restructuring process, which could compete in some areas with large companies. This phenomenon is closely linked with the character of technological innovations in recent years, particularly with the electronics industry, robotics and computer science.

In parallel, new technologies of information and communication - ICT (Internet, intranets, and other emerging) and the emerging forms of business organization strengthen cooperation models, strategic alliances and internal and external networks for businesses, as already occurs in the Japanese Keiretsu or Chaebol in South Korea). In this sense, analyzing the dynamics of economic development in Latin America in the early '80s, Guimarães (1982) points out that the process of internationalization of large foreign capital investments of transnational corporations did not come initially in opposition to the national capital strategies, and ended up creating a derived demand for



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certain goods (parts, components, basic raw materials, etc.). and services that could be met by domestic firms, even including the smaller players. This led to business opportunities for small and medium enterprises act as suppliers and subcontractors of foreign companies.

In another case, there would be spaces for the performance of SMEs in the interstices (or fringes) of the economy interstices/ fringes of economy, for the segments where big business is not attracted to compete.

In Brazil, starting in the early '90s, the subsidiaries of foreign companies directly competed with local firms, and in many cases, they have incorporated many of the small, medium and even large companies, as it did with companies in the auto parts sector in Brazil (Metal-Leve, Cofap, and Freios Varga).

Moreover, SOLOMON (1986) investigated the issues about the social and economic significance of micro, small and medium enterprises, their influence in the development process of the United States and the reality of small business units in emerging orbit of influence of so-called "Asian Tigers" and Japan and the latter cases have been shown to be a phenomenon highly relevant to the new arrangements between companies, especially in cases of outsourcing of parts, components and / or services for large corporations to small and medium-sized organizations.



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The household economy of SMEs constitute it would appear, according SOLOMON (1986) in a kind of powerful force to complement the large enterprise, government and labor unions in the modern economy. The leading role of SMEs in the current scenario could be explained by its main functions and economic virtues:

- 1.) SMEs facilitate the process of structural change;
- 2) They provide the ballast for stability of the economy;
- 3) They support the main business of the values of the socio-economic free market in which there is any economic activity in the United States.

In fact SMEs serve in times of uncertainty and the tendency for economic activities, real mattresses buffers the impact of the crisis, making minimal detrimental impact on large firms. And it is precisely because of this feature is evidence of low profitability and high death toll on smaller companies. These companies operate, as a rule, in more traditional sectors of the economy such as retail trade (accounting for about three-tenths of all commercial activity in the U.S.) and personal, legal, education and health workshops—general services repair, beauty salons, hotels, motels and entertainment of all kinds, construction, mainly focused on construction of houses, conducted by small businesses with fewer than 100 employees.

In the manufacturing sector small and medium manufacturing company has a share of a smaller proportion (more than 3 / 4 of sales of manufactured goods and a little less in terms of proportion of industrial employment fit for large industrial companies



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with over 500 employees in USA). Yet the role of industrial SMEs have proven to be of fundamental importance in this sector, mainly due to the fact that these organizations play small role increasingly important in modern inter-enterprise relations, reflected by the fact that they constitute as suppliers and subcontractors of manufacturing organizations large.

Among the most relevant economic characteristics of SMEs are:

1. The small firms tend to perform activities with low capital intensity and high labor-intensive.

2. The small company has the best performance in activities that require specialized skills or services. (Especially in the case of products or services designed or provided to meet the demand of one or a small group of customers, such as real estate agents, tailors, translators, among others).

3. A small company often performs well in small markets, isolated, overlooked, or "imperfect". (This fact is mainly due to small business marketing find space in progress called spaces or niches of local or regional markets, these spaces that are left by the large company, because they do not stand as significant markets or for the latter.

4. The small company survives by being closer to the market and respond quickly and intelligently to changes that occur in it. (Like for example the retail category has emerged in recent years in the U.S., called "gray market", which involves the sale of products, often imported and which are in oversupply, such as cameras and



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electronic devices and various types, and are sold at significantly reduced without license of the manufacturer).

5. The small business often survive by creating their own means to offset the economies of scale. (GUIMARÃES, 1982; SALOMON, 1986).

One of the most system used by small businesses in recent years has been the franchising, which has expanded dramatically starting in the late '50s. Typical examples of this system the restaurants of "fast food" (like Mc. Donald's) and other types of retail trade and services, optical, funerals, educational centers, and others.

On the other hand, the small company has take up a role in so-called submerged or informal economies across Europe in recent years, according to the economic difficulties of many countries (*sommerso lavoro* in Italy, *travail noir* in France, *schattenwirtschaft* in Germany or black economy in Britain).

It is worth noting the role of small industry in generating new technologies, especially in cases of creation of business incubators and technology parks. In this sense Silicon Valley in California, Route 128 in Massachusetts (Boston) in the U.S, high-tech small companies in Lyon in France, the Silicon Gorge in Scotland, the centers technology around Cambridge in the M4 Motorway coming out of London, among others are very illustrative case of the number of small firms in high technology.

It is important to identify the many difficulties and problems (financial and technical-organizational and managerial) that SMEs must overcome in order to become



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viable and competitive in the marketplace order to become viable and competitive in the market, with the trend of globalization, especially if these companies act in isolation in their respective markets. However, these difficulties could be mitigated through intelligent public policies, aimed at the promotion of SMEs, for example by encouraging these smaller companies to join organizations in the form of cooperative arrangements (as an umbrella organization), which provide common services to companies purchasing, marketing, guidance on export financing mechanisms, and even sites for a pilot plant (as the so-called industrial incubators).

Particularly, in Brazil, it is known that micro and small enterprises account for about 60% of the jobs in the private sector, almost half of total production, 42% of wages paid to workers and correspond to 98% of all establishments existing (GONÇALVES, et alli, 1995).

Forms of insertion of SMEs in the industrial structure

Based on Souza and Azevedo (2008) the concept of small business has been evidenced as "small capital", whose position and performance are closely linked to the process of oligopolization. Contributing to the debate on the concept of small business and identify the different forms of entry of this type of company in the industrial structure, the authors identified four possible insertion trajectories of SMEs in different production chains, namely: struggle for space in markets still not so oligopolized and



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with emphasized price competition; exploration of new market niches; network organization, with predominance of small business and without the explicit leadership of big companies; and insertion into sub-contracting networks controlled by big companies. Below each of these possibilities are discussed:

- 1st. Struggle for space in markets still not so oligopolized and with emphasized price competition: This situation refers to the participation of SMEs in competitive markets, where, via-de-rule, these companies act as subcontractors to larger companies and rely on lower cost of labor force (wages and benefits). In this case, even the small businesses function as a "mattress pad" in situations of fluctuating demand. It is, therefore, the traditional systems of subcontracting practice, for example, the auto industry 50 years to 70, under the paradigm of Fordist production, or in supply chains of traditional industry sectors such as footwear industry and clothing (*faccionistas* in Brazil or *maquillas* in Mexico). Although prevalent in terms of number of companies, they have no significance from the standpoint of the dynamics of supply chains in which they operate and their survival is linked to the possibilities of resisting competition through prices. In this situation where there is a higher rate of "mortality" SME .



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- 2nd. Exploration of new market niches: This second possible path for SMEs is that where such businesses operate independently from "niche" market and relate to the image of the innovative entrepreneur (Schumpeterian), ie, the entrepreneur who can envision a market opportunity and develop along a specific technological trajectory. In this case, in general, there are high barriers to entry, because the opportunities are identified with products in the early stages of their life cycle, where there are product innovation and more sophisticated technology or even more specialized services and sophisticated. On the other hand, the difficulties are related to the general public access to funding sources, especially when the small business owner realizes the need to move beyond niche and move to a new stage of development of larger scale and economically viable. In many situations can occur at the enterprise by buying a company larger and better financial conditions. Typical examples of this category of technology-based companies (TBC's) that may arise in the form of spillovers from other major company or laboratory research centers and universities of excellence.

- 3rd. Network organization, with predominance of small business and without the explicit leadership of big companies: The third situation is the possibility of small businesses organize themselves in the form of networks of cooperation, without the command of a company grade leader. In such production arrangements is essential that



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SMEs can develop joint and coordinated actions based on a spirit of high mutual trust among participants and resource sharing, infrastructure and expertise. In this case the gain in efficiency is due to the collective combination of external economies (incidental, unplanned), such as the existence of skilled labor and suffering from specific skills to the local system, presence and attracting a number of specialist suppliers of raw materials, components and services and dissemination of knowledge, skills and information related to the activity of local producers with economies of joint actions deliberate, such as purchase of raw materials, promotion of training courses for professional training, creation of consortia specialized technological centers of collective use, among others. Typical examples of such arrangements the formations known as industrial districts or local systems of production, such as those in the Third Italy (PORTER, 1998, HUMPHREY AND SCHMITZ, 2000; NADVI, 1995).

They may even occur, the formation of so-called virtual networks of cooperation, where the requirements for the formation of such networks gain greater relevance through intense use of new information technologies and communication, ICTs.(CAMARINHA-MATOS, L. M. & AFSARMANESH, H., 1999).

- 4th. Insertion into sub-contracting networks controlled by big companies: The last possible trajectory (but no less important) concerns the integration of SMEs into networks controlled by big companies, which in a planned strategy (rather than casual



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or cyclical action, as in the first case) go through a process of vertical disintegration (upstream). Thus, small businesses will become part of the strategy of the "mother company" under a new logic of division of labor. They typically include the path of Japanese *keiretsu* in Japan, the *chaebol* in Korea and *guanxi* in Taiwan, where small business plays a fundamental role to ensure the competitiveness of the "parent company" operating under a huge structure. Note, however, that relations between the companies in this case are supported by the intense exchange of information, knowledge and experience, unlike what happens in the case of conventional outsourcing, presented and discussed in the first situation.

Innovation in small and medium enterprises: The case of the State of São Paulo/Brazil.

In a recent survey concerning innovation and competitiveness in SMEs of São Paulo ("Observatory of SMEs"), involving 450 micro and small enterprises developed by Sebrae-SP (the Brazilian Center of the SMEs) it was found that among those companies that have innovation in their businesses process over the past year (2007), 52% had growth in production volume, 46% increased revenue, 39% reported increased productivity of the labor force and 24% expanded their workforces. The concept of innovation adopted in this research involves the design of new product or production process, as well as the addition of new functionality or features of the



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product or process that entails improvements and effective gain in quality or productivity. This is a representative sample of the population of the São Paulo state, industry sectors, trade and services. The study was basically to identify the degree of innovation at the group of micro and small state of Sao Paulo and to evaluate the frequency with which entrepreneurs employ innovation in their business, and the main innovative processes in place. (SEBRAE, 2008).

Characteristics of Micro and Small companies in the metal–mechanic sector

The metal-mechanic sector is, basically, composed by industry of machinery and equipment, automotive industry, and metallurgy segments. In the segment producer of machinery and equipment are included manufacturers of motors, compressors, pumps, appliances and equipment for general use. For the companies group belonging to the metallurgy segment we can find manufacturers of pig iron, iron alloy, steel, manufacturing of non-ferrous metals, and pipe and castings manufacturing. Finally the automobile chain consists of large companies (automakers) and suppliers (autoparts).

Its important to point out that this sector is recognized by its generation and dissemination high level of technical knowledge and dynamic factor in the process of capital accumulation of economies.

The metal-mechanic sector has a significant participation in the state of Sao Paulo / Brazil, employing 21% of total workforce in the industry and generate 44% of



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income of whole state (IBGE, 2006) and is concentrated mainly in the metropolitan region of Sao Paulo, followed by the regions of Campinas, Sorocaba, Araraquara and São Carlos (ANDRADE, 2007).

Most of SME's belonging to the metal-mechanic sector family businesses with long-time existence. The companies in this segment are generally suppliers of large companies, therefore, are structured to meet the technical and quality standards set by other companies. However, the degree of formalization is low and the administrative structure does not support the decision making process. The preferred method of sale is the trading staff. In these companies there are two types of leaders: the technical and nontechnical ones. The head coach is centralized, while the degree of centralization of non-technical is smaller. Thus, the non-technical staff must be consulted about important decisions in many situations (MOTTA; ECRIVÃO FILHO, 2002). Most of its leaders have the technical high school degree, however, several of them have completed higher education (Moiola et al., 2007). The use of formal plans is a strong trait (characteristic) of the metal-mechanic SMEs (ARMSTRONG, 1991). Companies carrying some type of formal plan with the predominant use of short-term planning as a mechanism of support in business administration (Moiola et al., 2007).



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The construction industry

According to Black et al (2000) the construction industry has begun demonstrating continuous effort to improve the process by using partnerships between companies. However, Cheng and Li (2002), Chan et al (2004) and Holmen et al (2005) expound that there is a low degree of innovation, communication, trust and coordinated cooperation, the environment is conservative and most of the work, according to Zarli and Richaud (1999), are organized into single projects.

According to Wong et al (2005), part of the problems occurs due to barriers in learning and organizational changes. For Matthews (2004), Jones (2005) and Ploetner and Ehret (2006), competition, associated to technological changes and the growing diversity of products, force the implementation of new management practices. For Jones (2005), companies must sustain permanent changes and improvements. Within this scenario, the interorganizational arrangements have generated progressive and opportune earnings.

Based on Rezgui et al (2000) and Wilson et al (2001), the construction already operates as a network, but without coordination. According Franke (2003); Knouse (2004); Travica (2005) involves partners that share resources as a function of opportunity and no commitments beyond. According to Torkkeli and Tuominen (2002), the communication networks induce redefining the levels of autonomy of each company, influencing the restructuring of duties (functions) and responsibilities.



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In construction, some projects are more complex, which requires the involvement of other companies. Therefore, it is necessary to follow some steps (CAMARINHA-MATOS and AFSARMANESH, 1999).

Big companies in the construction industry often hire other companies, who in turn contract other small and medium-sized ones.

The job description is transferred to the construction companies concerned. After initial agreements, all the companies negotiate the creation of the virtual organization. A company is designated to manage the project, which will monitor and track all the process stages, producing reports of the participating companies (deadline compliances, financial control, among other things). Once the proposal is registered and accepted, the virtual organization starts its operation, otherwise, new participants will be selected. The virtual organization operates only if the members cooperate with each other to facilitate the coordination of the network. In the event of a problem with one of the participants, the coordinator will remove it from the project and will seek a replacement to play this role. After completing the project, the virtual organization is dissolved. (CAMARINHA-MATOS and AFSARMANESH, 1999).



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The hotel sector

The hotel is a service industry that has its own organizational characteristics. Its main purpose is the provision of accommodation, security, food and other services related to the activity to receive. Brazil is still a country with little tradition in the hospitality industry. Only after II World War, with the major technological and industrial development increasing, the Brazilian hotel sector has to improve and create their own concepts, differentiating the various types of business and creating rules and standards that guide their activities (SAAB and DAEMON, 2020).

The hospitality sector has assets worth around U.S. \$ 10 billion and annual revenue of about \$ 2 billion, according to the Brazilian Hotel Industry (ABIH). The organization estimates that there are around 22 thousand lodging facilities in the country.

The Brazilian hotels can be divided into three main groups: the first one is formed mainly by family-run enterprises - traditional - also known as independent hotels; the second one by large chains of domestic capital, and, finally, the large international networks settled in the country.

The hotel sector is one of the companies providing services that are those whose activities do not result in delivery of goods, but the supply of their own work to the consumer. This sector can be subdivided into: food, transportation, tourism, health,



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education, leisure, among others. It is composed mainly of family firms whose entrepreneur is a person who generates, collects and distributes wealth from a dream, ideal, or need of survival involving family members in tasks of the company.

The hotel company is an essential factor to the infrastructure of tourism. According to a survey conducted by IBGE (2007) the small businesses represent 97.2% in activities related to tourism. Currently, there are 25 thousand means of accommodation in Brazil, and this universe is 18 thousand hotels and inns .Overall, 70% are small enterprises. This represents more than one million jobs and delivering approximately one million apartments nationwide. It is estimated that the national hotel industry has a turnover of around U.S. \$ 2 billion years (ABIH, 2007). According to ABIH (2007), the hotel sector has a net worth of U.S. \$ 78.7 billion, spends an average of \$ 2 billion a year on labor force and more than \$ 30 million in contributions to Secure Financing Social. Historically, hotels invest probably about \$ 50 million a year just to keep the sector, according to the National ABIH (2007). It is noteworthy that the number of projects combined with hotel chains is still small in Brazil (9% by number of hotels) but the number of apartments is more representative, 27% of the total available (HIA, 2006). In terms of job creation this sector is particularly relevant in areas with few alternatives for work, making that contribute to regional development business is one of the foundations of tourism, one of the key elements that make up the



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(MEDLIK and INGRAM, 2000). In tourism, spending half refers to the hotel, the hotel tourism product (DIAS, 1990).

Nowadays in Brazil there has been an incentive for increasing the growth tourism market, especially of small-scale hotels. Based on Hotel On Line (2007, p.36) "the segment of small businesses, comprised mainly of houses and inns, occupies a privileged position in the market for lodging facilities".

Analyzing some aspect concerning to the strategic information management (SIM) at small hospitality enterprises Brito (2008) shows that while informal and personal information is more valued in the beginning of the strategic process, SIM procedures are then used to promote the continuity of the chosen strategic actions. In addition, while SIM is intentional and shared at large enterprises, it seems to be rather instinctive and centralized at small enterprises.

Some conclusive remarks

The large diversification in terms of different forms of competitiveness of SMEs operating in different production chains was presented and discussed in this preliminary study. Based on the comparative analyzes among three Brazilian sectors (metal-mechanic sector, construction industry and the hotel sector) it is possible to mention some preliminary remarks: real opportunities to develop and increase the innovative capacity of SMEs depends , in general, on the specifics characteristics of each sector,



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mainly in terms of market structure (oligopolized or non-oligopolized markets), the products nature (consumer goods, capital goods or services), the dynamism of each market niches and so on. In the case of SMEs operating in the metal–mechanic sector there are different forms of insertion, but the traditional sub-contracting networks controlled by big companies (mainly in automobile, aerospace and machinery) are predominant.

On the other hand, the construction sector presents different forms of SMEs insertion in their productive chains. As it was already mentioned, big construction company contracts other medium-size companies, which in turn contract other small and medium-sized companies. In some cases, after initial agreements, they try to operate as a virtual enterprise, in which a company is designated to manage the project and will monitor and track all the process stages, producing reports of the participating companies (deadline compliances, financial control, among other things). But in general, the most common structure is that SMEs struggle for space in competitive markets still not so oligopolized and with emphasized price competition. In this case small companies are strongly dependent of a big company, i.e., SMEs act as subcontractors to larger companies and rely on lower cost of labor force.

Finally SMEs operating in hotel sector have other specificities: Composed, in general, of family firms, where a single person (the entrepreneur, in general) is the manager, this kind of service company was born from a personal dream, ideal, or a need



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of survival involving family members or friends in company tasks. In this sense they don't have any kind of formal management structure neither a long term planning. Talking about the insertion forms in the productive chains, companies belonging to this sector can be classified into three main groups: the first one is formed mainly by family-run enterprises - traditional - also known as independent hotels (they operate, in general, in some "niches" market in some regions where there is no attractiveness to big companies or international hotels networks. Specially, this is the case of some ecological tourism SMEs, for example; the second group is regarding to large domestic capital chains, and, finally, there is the group of large international networks settled in the country.

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