Working Paper Number 71

Determinants and policies to foster the competitiveness of SME clusters: Evidence from Latin America

Manuel Albaladejo*

This paper attempts to identify key determinants of competitiveness in SME clusters, with especial reference to Latin America. It takes the debate forward as its extended framework adds country- and firm-level determinants to the existing cluster-level factors of the "collective efficiency" approach. Based on an enlarged analytical framework, policies recommendations to foster clusters' competitiveness are provided at different levels. Empirical evidence strongly suggests that joint action may not be enough for clusters to face new competitive pressures. This confirms the narrow scope of the "collective efficiency" approach, and suggests that policy intervention in Latin America should go beyond the mere promotion of inter-firm linkages to foster the competitiveness of SME clusters.

May 2001

* Queen Elizabeth House

1. Introduction

Nearly all Latin American economies have faced a shift towards more liberalised regimes in the last decade. The opening up to new markets has exposed small- and medium-sized enterprises (SMEs) in Latin America to the benefits and threats of globalisation. On the one hand, optimists argue that increased competitive pressures will trigger the upgrading of SMEs through the introduction and absorption of new technologies. Pessimists, on the other, point out that trade liberalisation has been accompanied by macro-economic distortions (such as the instability of the real exchange rate), that have posed a special threat to SMEs. With all things being equal, the relative comparative advantage of SMEs deteriorates as larger firms have more resources to adjust their production systems to changing environments.

As in many other regions in the Third world, industrial clustering in Latin America is significant. SMEs have benefited from geographical agglomeration as proximity breeds external economies and induces to joint action. However, the growth experience of clusters is varied as new competitive pressures require more than "collective efficiency" to break into global markets. Indeed, the whole concept of competitiveness has changed from static to dynamic, which implies the ability of constantly supply new market niches with the right product, at the right time and with the right quality. Under this new scenario, few clusters in developing countries have been able to compete in "high-street" markets with innovative and quality products due to their internal and external constraints to grow. What makes them so different from successful clusters in industrialised countries?

This paper tries to identify the determinants of competitiveness of SME clusters, with especial reference to five clusters in Latin America. It takes the debate forward as its extended framework adds country- and firm-level determinants to the existing cluster-level factors of the "collective efficiency" approach. Based on an enlarged analytical framework, policies recommendations to foster clusters' competitiveness are provided at the different levels. The paper is structured as follows: section 1 is this introduction; section 2 presents the conceptual underpinnings; empirical evidence from five SME clusters in Latin America is provided in section 3; finally, section 4 gives a list of possible policy recommendations to foster the competitiveness of SME clusters in Latin America.

2. Theoretical underpinnings: An Extended Framework

Although there is no a generally accepted definition of cluster, the concept is widely used in the industrial literature. The term could refer to both structured industrial production systems and informal market agglomerations where business arrangements occur. However, it is clear that in the broadest sense it denotes "the geographical and sectoral concentration of firms" and its potential benefits for the smallest companies (Schmitz 1994:1).

The concept of cluster is derived from the term "industrial district" originally used by Marshall (1920) to stress the economies that arise from the concentration of specialised industries in particular localities. Some decades later, Becattini (1990) reintroduced it in the debate to explain the successful performance of local SMEs in the Italian regions of Tuscani and Emilia-Romanga. Sectoral concentration led to vertical disintegration and flexible specialisation where economies of scale could be reaped through inter-firm co-operation. Common goals and socio-cultural identities helped to build up trust in the cluster, and self-help institutions were used as vehicles for political lobbying. The "Italian district model" became a benchmark for policy-makers and researchers to explore how far (or close) were other SME clusters from the *beau ideal.*

However understanding why some clusters do well as many stagnate cannot be simplified to a mere comparison with the "textbook" model. Indeed, clusters' performance can be hampered or

fostered through a wide array of interconnected factors. Some are internal to the clustered firms, while others belong to the economic and social environment in which they operate. Some can be directly fostered through government intervention, while others are more effectively promoted through market channels. Research in this topic so far has tended to focus on inter-firm determinants (i.e. the factors found to be important in the Italian experience), clearly overlooking the importance of intra-firm and macro-economic issues. Understanding clusters' behaviour thus requires an integrating framework depicting a wider set of factors that may help to explain differences in economic performance. Using several bodies of literature, box 1 presents an extended framework of determinants affecting competitiveness in SME clusters.

Box 1: Determinants of competitiveness in SME clusters

A) Country level:

General interventions:
Macro-economics
Regulatory and policy framework

SME-specific interventions:
Financial services
Non-financial services

B) Cluster level:
External economies
Joint action
Trust
Connectivity

C) Firm level:
Skills (management, technology-related)
Technological effort and learning
Working conditions
Physical infrastructure and machinery

Country-level determinants

General interventions at macro level reflect over-arching concerns with the economic environment in which all firms operate. Under this umbrella fall polices related to macro-economic stability and the regulatory and policy environment. For instance, there seems to be an agreement that clusters (and firms in general) benefit from a stable macro-economic environment with tight inflation control, low budget deficits, reasonable interest rates and competitive real exchange rate. Indeed, macro-economic stability provides companies with incentives to save and mechanisms to channel those savings into investments.

A conductive regulatory environment often requires a market-friendly trade regime, which reduces import controls and tariffs. The reduction in import restrictions however needs to be gradual so that companies have the time to adjust to the new challenges. In order to accelerate the adjustment process, governments need to reduce the transaction costs facing companies by simplifying and centralising formal administrative procedures to register businesses (e.g. through a one-stop shop) and cutting red tape[1].

[1] For a more detailed study on the constraints facing companies in the regulatory and policy environment, see Spath (1992)

Providing macro-economic stability and a conductive regulatory framework are important preconditions for clusters' competitiveness, but there might not be enough. A second policy factor to understand the dynamics of SME clusters is the existence (or not) of specific SME interventions. It is necessary to intervene in a direct way as changes in the macro-economic setting, on their own, will not solve most problems faced by SMEs. Particular to them is the problem of lack of capital. Financing constraints limit the investment capacity of SMEs and hence hamper their growth. In general terms it appears that lending to SMEs is seen as a "high-risk" business as most of these companies lack collateral. However, it is worth stressing that the problem does not seem to be the lack of funds but rather how to make it accessible to SMEs. Research shows that funding often gets diverted to the benefit of larger enterprises, and that only an insignificant number of SMEs have been able to attract bank financing (UN,1993).

The difficulties of implementing financing support schemes and their limited impact on SMEs made development agencies turned their attention to non-financial services as an alternative way to support SMEs. The rational behind the idea of providing services is that "small firms need to have a whole range of services and inputs which large firms are normally able to call upon internally but which, for reasons of scale, small firms are unable to provide themselves" (Pyke, 1994:4). Non-financial services broadly cover two areas:

- Services concerned with improving production and innovation capabilities, such as counselling on production lay-outs, quality standards and maintenance check-outs; provision of information for technology development, launching co-operative joint operations of large-scale and expensive equipment; testing of raw materials; and training of entrepreneurs and workers.

- Services concerned with developing commercial/marketing activities in firms, such as marketing training, business linkages and co-operative sales initiatives.

Non-financial services can be delivered through public service centres or through the business environment (commercial channels). In the former, such a provision involves supplying companies with those services they require in return for a price or a performance-based commission. Although these centres often provide services tailored to the needs of their clients, their affordability by the poorest businesses is still questionable. In response to this, services provided by and channelled through private enterprises have attracted the attention of donor agencies, though the role of the latter is not clearly defined as they can generate market distortions. The nature and effectiveness of services provided varies from country to country and sector to sector, however, a common feature is that they are often designed to offset constraints facing SMEs. Both public and private service providers have adopted a customer-oriented, collective and cumulative approach (Humphrey and Schmitz, 1996) to reduce transaction costs, increase outreach, and stimulate the sustainable growth of SMEs.

Cluster-level determinants

These are the inter-firm determinants emphasised by the "textbook" model based on the success of SME clusters in Italy. The point of departure of this approach is that the problem of many small firms is not their size but rather their isolation (Sengenberger and Pyke, 1991). Indeed, research has shown that geographical and sectoral concentration breeds external economies and induces to joint action (). External economies are the unplanned gains that occur as a consequence of the unintentional influence that firms have when they are in close proximity with each other (Mishan, 1971). The

creation of a pool of skilled labour, the diffusion of technological know-how, and the shared interest of attracting foreign buyers are some examples of spillover effects derived from clustering[2].

Joint actions represent the planned gains of being clustered. Strong collaborative ties have shown to be very effective in helping SMEs to overcome main structural constraints in their productive, organisational and marketing functions. There are several types of co-operation patterns:

- "Horizontal co-operation" represents a partnership between companies operating at the same (or similar) stage in the production chain. For instance, companies may get together to share expensive technology and to purchase raw material at lower cost.

- "Backward co-operation" comprises any type of contractual or informal arrangement between final producers and their input suppliers and subcontractors. For instance, backward co-operation can be strengthened to increase quality standards of the components produced by subcontractors. This may involve technology transfer and training provision from the top.

- "Forward co-operation" involves aspects such as the exchange of market information and demand trends between buyers and producers, which gives rise to a *creative milleau*.

The term of "collective efficiency" (Schmitz, 1994) is an integrating concept that captures both the external economies and joint action gains that result from geographical agglomeration. It is important to note that the notion of collective efficiency does not deny competition and conflict within the cluster. It rather emphasises the benefits that SMEs would miss if they were not clustered. Indeed, research shows that clustering facilitates the mobilisation of financial and human resources as it breaks down investment into small riskable steps (Schmitz, 1992). It stimulates a process in which companies create – often unwillingly – a niche for accumulating know-how, skills and capital. But while collective efficiency provides the basic ingredients for clusters to flourish, growth may not follow. The gains resulting from clustering require of two other factors:

- *Trust.* Political and social life is inherent to clusters. Accepted and respected common values derived from socio-cultural identities are shared by people as well as firms. This homogeneity system contributes to the achievement of common goals, strengthening communication flows, co-operative efforts and trust among producers. Such an interconnection helps firms to identify themselves with the industry of the area and to promote the interests of the community as a whole. Social sanctions occur when individuals break rules or act against common goals. Collective efficiency is unlikely to happen without trust and sanctions. Research has shown the importance of the existence of these social rules to strengthen co-operation ties among firms, therefore accelerating the process of learning in clusters[3].

- *Connectivity.* A major thread to clusters, especially in developing countries, is being by-passed by international flows of products, technology, information and finance. The insertion (or not) of a SME cluster into global and regional value chains defines its sustainable performance and growth. On the one hand, clusters well connected to distant markets are more like to experience evolutionary growth based on the continuous upgrading of products and processes. Global buyers and foreign firms can be a main source of technology transfer and a learning pool for SMEs[4]. On the other, clusters that are limited to domestic markets are likely to experience "inmiserising" growth with price being the basis for competitiveness. There are no incentives to upgrade as domestic markets, especially in developing countries,

[2] Krugman (1991) identifies three types of external economies in SME clusters: labour market pooling, intermediate input effects, and technological spillovers.

[3] For research on trust and sanctions in clustes, see Nadvi 1999, Humphrey and Schmitz 1998, and Mead 1984.

[4] See Schmitz and Knorringa 1999, and UNCTAD (2000)

tend to be less demanding. Firms that follow this strategy are likely to fail in the long run as they rarely invest in the labour force and low wages may generate internal conflicts.

Firm-level determinants

The overall performance of a cluster reflects the performance of individual or small groups of firms within the cluster. However, research on clustering has tended to focus its attention mainly on the socio-economic context in which clustered firms operate, while little has been done on the firm-level dynamics that occur in clusters. Furthermore the link between intra-firm factors and a cluster's overall performance has not been empirically explored in the literature[5].

The point of departure of this approach is that the dynamic competitiveness of clusters depends on a continuous process of technological learning and upgrading within firms. Learning requires the existence of "technological capabilities", which are defined as the knowledge, skills and efforts required for firms to bring about an indigenous process of technological development. Technological capabilities can be broadly divided into two: those required to increase production efficiency (production capabilities) such as quality control and production scheduling management; and those to make major improvements to established technologies, or to create new ones (innovation capabilities).

Such capability acquisition cannot be taken for granted and it often requires purposive and cumulative efforts aimed at assimilating and modifying existing technologies, adapting them to local conditions. This is especially the case in developing countries since major innovations are still concentrated in technologically advanced countries. The effectiveness of these integral efforts that lead to in-firm technological learning is assumed to depend on the managerial and technical skills of entrepreneurs and the workforce. The importance of technology effort is reflected in how much a firm spends on upgrading and improving existing products and processes, or creating new ones

Companies with strong technological capabilities are likely to generate "learning-rich" networks boosting a cluster's technological dynamism. Co-operation ties breed technology-related information flows that might lead to incremental capability building for the parties involved. For instance, R&D joint venture arrangements between clustered firms. On the contrary, if technological capabilities are weak, the benefits of joint action are restrained due to obvious limitations in technology-related knowledge. In this context, information flows between clustered companies tend to be "learning-poor", having little impact on the process of inter-firm technological capability building. Clusters at this level lack technological dynamism and often remain stagnant production-driven spots of low value-added activities where cheap and abundant labour force prevail as the main competitive factors.

To sum up, determinants of competitiveness in clusters are many and located at different levels. Some are external to the cluster, some are external to the firms but internal to the clusters (inter-firm factors) and others internal to the clustered firms (intra-firm factors). So far, the "collective efficiency" framework, which only focuses on the externalities and joint action derived from geographical agglomeration, has been the predominant approach in exploring clusters' competitiveness in the Third world by comparing them to the ideal "textbook" model.

The next section tries to shed light on the determinants of competitiveness of five clusters in Latin America. Although these cases have been researched under the "collective efficiency" scope, complementary research material has been gathered to take into account country- and firm-level factors as they have been presented in the theoretical framework. This would give the reader a broader view of the factors affecting clusters' competitiveness. Prior to this though, and introduction about the

[5] Bell and Albu (1999) provide an analytical framework for research in this topic.

relative importance of SMEs in Latin America and an overview of the clusters researched are briefly presented.

3. SME clusters in Latin America

The SME sector accounts for much of the labour force and production in most Latin American countries, becoming a key player in their economic activities. For instance, SMEs in Argentina account for 99% of all firms, employing about 70% of the total labour force. In Brazil, there are around 4 million of SMEs, which account for 40% of the GDP. In Paraguay and Uruguay, SMEs account for 60% and 50% of the GDP respectively (GML, 1996). Breaking down the SME category into smaller units, we find that over 80 per cent of the businesses in Latin America and the Caribbean have 10 employees or fewer. These small productive units provide jobs to over 120 million people in the region (Berger and Guillamon, 1996). SMEs in Latin America, like elsewhere in the Third world, are often family-owned and chiefly involved in the production of labour-intensive traditional goods for the domestic market. Many of these local industries are static as major technological changes in products and processes have hardly occurred.

Clusters in Latin America are diverse, but they tend to consist mainly of micro and small firms involved in low-tech activities (garments, shoes, etc.) with low barriers to entry and low industrial rents difficult to sustain due to increased competitive pressures from catching-up countries[6]. Generally speaking, it seems that SMEs in Latin America have used clustering as a self-defence strategy rather than as a mean to build up dynamic competitiveness through inter-firm learning and technological upgrading (Albaladejo, 1999).

The clusters presented in this paper have been researched in depth. These are: the Sinos Valley cluster of shoe-makers in Brazil (Schmitz, 1993, 1995, 1999; and Schmitz and Bazan 1997); the Mexican footwear clusters of Guadalajara and Leon (Rabellotti, 1997, 1999); the garment cluster of Gamarra in Peru (Villaran, 1993; Visser 1997); the Peruvian cluster of shoe-makers in Trujillo, Peru (Tavara, 1993); and the Brazilian granite industry cluster in Cachoeiro de Itaperimim, Brazil (Sabadini, 1998). These clusters show signs of success and failure and have recently felt increased international competitive pressures. Although generalisations cannot be made from these few examples, they provide interesting insights on the sort of factors that affect competitiveness of similar clusters throughout the region.

3.1 Five clusters at a glance

The Brazilian shoe industry has its main core in the Sinos Valley. There are around 1,800 firms – most of them SMEs – of which 500 are shoe producers supported by 700 service rendering industries and 200 component firms. Producers in the Sinos Valley have specialised on women's footwear and its spatial concentration – 50 Km radius around Novo Hamburgo – has attracted the attention of export agents all over the world. In 1990 the cluster exported 65 per cent of the total shoe production and employed 150,000 people (Schmitz and Bazan, 1997). Competitive pressures were felt by local producers with the opening of the Chinese economy to international markets. The annual growth rate of shoe imports from China increased to almost 40 per cent, threatening the exports of standardised shoes.

Mexico's footwear industry is mainly located in two clusters: Leon, which specialises on men's and children's shoes; and Guadalajara, specialising in women's shoes. Both clusters account for two-thirds – over 4,000 firms – of all Mexican shoe producers. Most firms are small or very small in size

[6] Of course, there are exceptions to the rule. For instance, Altenburg and Meyer-Stamer (1999) distinguish between survival clusters, mass production clusters and clusters of transnational corportations in Latin America. The emergence of an SME cluster revolving around Intel in Costa Rica is a good example of more advanced clusters.

and family-owned. Mexican local shoe-producers were also badly affected by cheap shoe imports from China.

Lima's "Complejo Gamarra" is the most important garment cluster in Peru. It has over 3,000 businesses including final producers, subcontractors, trading firms and input suppliers, all of them engaged either directly or indirectly in the production and marketing of garments. The "El Porvenir" cluster in the city of Trujillo consists of 1,000 small and micro firms that account for 35 per cent of the Peruvian domestic shoe market. Like in the other Peruvian case, there is no information about how increased competitive pressures have affected the dynamism and growth prospect of both clusters.

Finally, the cluster of Cachoeiro de Itapemirim in Brazil is a very interesting example of a spatial concentration of SMEs in a resource-based industry. The cluster contains 500 firms – of which 300 are stage firms – accounting for almost 80 per cent of Brazilian exports of solid ornaments in marble and granite. The author provides a detailed comparison of the cluster's main features with the Italian model.

3.2 A comparative analysis of factors of competitiveness

As already said, the inter-firm variables emphasised in the "collective efficiency" approach were used in these cases to determine the level of (dis)similarity of these clusters with regard to the "textbook" model. We therefore start by exploring the determinants at the cluster level.

3.2.1 Cluster-level determinants

The decentralisation of the production process, firms' specialisation on a specific phase of the production chain, and the increase of subcontracting practices are major features of the "new competition" (Best, 1990). This shift toward post-Fordist ways of industrial organisation has also been experienced in the clusters researched.

Decentralisation of production and flexible specialisation are key for SMEs in the Sinos Valley as there is a great range of inputs, components, and intermediate goods to shoe manufacturing all provided locally. In the other Brazilian case, Sabadini points out that 73% of the firms interviewed concentrate on only one phase of the production process. Visser also acknowledges that Gamarra's economic dynamism is mainly due to the fact that decentralisation of production has widely taken place and firms have specialised in particular stages of the value chain.

This evidence is less obvious in Trujillo where "individual firms ensure that the initial and final activities of the production process are performed in-house" (Tavara, 1993:102). Shortage of trustworthy subcontractors may be the reason, as in the case of Mexico, where firms "try to internalise as many phases of the production cycle as possible in order to reduce their dependency on an unstable, low quality supply" (Rabellotti, 1997:44). Although the situation has slightly changed with the opening of the Mexican economy to global markets, the larger and most competitive firms still seem to be highly centralised.

Strong collaborative links among firms is another feature of the "textbook" model. Schmitz (1994) coined the term "collective efficiency" when studying how local shoe producers in Sinos Valley strengthened their co-operative links to face global competition. Forward ties with export agents particularly played a major role for the breaking up of the cluster into international markets. They would provide technical assistance to ensure a good quality product. This quality check-up would also be reflected in the firms' backward relationships with input suppliers and subcontractors, creating then a quality conscious stream from the production process to the marketing phase. In Guadalajara, Rabellotti (1999) states that increased co-operation has positively contributed to the cluster's growth.

Unlike the Sinos Valley and Guadalajara, Cachoeiro de Itapemirim and Trujillo show lower levels of co-operation among firms. Furthermore, the real benefits of joint collaborative efforts do not seem to be there. In the Brazilian case, Sabadini points out that although 46 per cent of firms appears to be involved in co-operative activities with other firms, these arrangements tend to be informal and unstructured having little impact in the firms' capacity to improve production processes.

A shared set of values and common goals are the result of concrete economic, social, cultural and historical conditions. Socio-cultural embeddedness implies mutual knowledge and trust among firms, which "helps to promote the generation and diffusion of innovations within the cluster" (Villaran, 1992:144). The social milieu seems to be strong in the cases of Trujillo and Cachoeiro de Itapemirim. In the Peruvian case, Tavara (1993) reports that there seems to be a high degree of solidarity due to communal efforts to improve the living conditions of the cluster's inhabitants. This has facilitated trust relationships among the firms and led to the formation of local self-help organisations. In Brazil, Sabadini (1998) points out that the common roots of the entrepreneurs in the cluster – 46 per cent of the entrepreneurs interviewed were Italian – has contributed to strong co-operative links to increase productivity.

The Sinos Valley is an interesting case as it shows how the social milieu can change over time. At the beginning there used to be strong socio-cultural ties due to the German origin of most of its population. The penetration of outsiders – particularly export agents – with a very different set of values diffused the inherent social ties in the cluster. But how can inter-firm co-operation be so high when social and cultural values have become so heterogeneous? The author highlights that increase in co-operation in the last years have not resulted because of socio-cultural ties but rather because the "economic costs of not co-operating" (Schmitz 1995:21).

Active presence of local self-help institutions such as trade unions and manufacturers' have been integral part of successful clusters in industrialised countries. They play a key role as they tend to promote initiatives that reflect the needs and concerns of local firms. Strong self-help organisations seem to be present in the selected clusters. In the Sinos Valley cluster, co-operation among local producers led to the formation of FENAC, a professional trade organisation that has been used to bring foreign buyers (Schmitz ,1999). The same can be said in the two Peruvian cases where the National Footwear Makers Association (APEMEFAC) in Trujillo and the Peruvian Association of Small Scale Garment Manufacturers (APIC) in Gamarra have played a significant role in the development of both clusters.

3.2.2 Firm-level determinants

Firm-level determinants comprise those intra-firms factors discussed in the "technological capability" literature. As already sad in the theoretical framework, the dynamic competitiveness of clusters depends on a continuous process of technological learning and upgrading within firms. For such a process to happen investment in physical and human capital is required.

Unfortunately, the cases here studied do not provide detailed information on the level of technological excellence of the clustered companies. However, Villaran's (1992) analysis of clusters in Peru shows the low competence-level of the SME workforce in Trujillo and Gamarra. In the same line, Sabadini points out that only a few firms care about the training and the skills of the labour force in his study in Brazil. According to the survey, "44 per cent of firms report to do nothing about increasing the skills of the workforce" (Sabadini 1998:15). Finally, it is not clear what the level of skills in the Brazilian shoe industry but one could assure that it is weak as the industry employs a high level of non-qualified teenagers (Schmitz, 1993).

But shortage of skills is not limited to the shop floor only. Research published in *"La Gazeta Mercatil Latinoamericana"* has shown that Latin American entrepreneurs lack managerial skills and long-term vision (GML, 1996). According to this study, managers are apprehensive about change and stick to traditional and defensive strategies in business practices. Improvements in aspects such as

quality, productivity and innovation are not seen as ways of increasing firms' competitiveness capacity. Thus, companies' owners are satisfied with the *status quo* and only aspire to perform everyday operations with no prospects in the long-run. Another research carried out by the Economic Commission for Latin America (ECLA) states that the lack of managerial skills and limited technological effort are among the major problems faced by the SME sector in Brazil (GML, 1997).

In their comparative study of industrial districts in developing countries, Nadvi and Schmitz (1994) also show the relative weak technology standards of Trujillo, Gamarra, Guadalajara and Leon with regard to the Italian ideal model. Sabadini points out the obsolete infrastructure and poor conditions that workers have to put up with in the cluster of Cachoeiro de Itapemirim. He says that the machinery used is "old, obsolete and in precarious conditions, being this the cause of the high number of working accidents in this particular sector" (Sabadini 1998:15).

3.2.3 Country-level determinants

The impact of macro-economic policies on the performance of clusters was not explored in the case studies selected. Only in the Mexican case of Guadalara does Rabellotti point out that trade reform made firms aware of global competitive pressures. In her study, she notes that the Peso devaluation "gave some firms the time to respond with greater co-operation with suppliers, buyers, and through the entrepreneurial association" (Rabellotti 1999:1582).

Among the external constraints faced by SME clusters, the domestic policy environment seems to be the dominant one. In most Latin American countries macroeconomic instability has been present for decades. For instance, countries such as Argentina, Brazil, Peru and Venezuela encountered instability, leading to periods of unsustainable balance of payments deficits and hyperinflation. This scenario resulted in appreciated exchange rates, imposition of import restrictions and created general policy uncertainty. These aspects of the macroeconomic environment were harmful to all private enterprises but especially to SMEs.

A second major external constraint is the deficient regulatory environment created by many Latin American governments. Although improvements have been seen recently, the complexity of regulations to register businesses has increased the transactions costs of SMEs *vis-à-vis* large domestic enterprises and foreign firms. For instance, De Soto (1984) claims that it takes an extraordinary amount of time and bureaucracy in Peru to go through the whole process of registering a business.

As far as SME-specific interventions are concerned, and apart from few exceptions, Latin American governments have not provided the financial and technical resources for SMEs to overcome these structural constraints. Adjusting the productive system of SMEs to compete with more innovative and higher requires a quick infusion of new capital. In Latin America, evidence shows that large firms have better access to credit and that governments protect them more. The ECLA's (GML, 1997) study shows that from a survey of 400 firms within the MERCOSUR agreement, 87 per cent of SMEs had problems in financing new investments. Another research shows the positive relationship between access to bank finance and increased exports (Miller and Caprio, 1997). Within MERCOSUR context, the study concludes that larger enterprises have easier access to bank finance than SMEs.

On the technological side, the ECLA's study (GMT, 1997) exposes the deficient technology and innovation schemes of many supporting institutions in Latin America. In most cases, the main problem is not the existence of such support schemes, but rather the lack of co-ordination and shared objectives among the different institutional actors.

3.2.4 Clusters' industrial paths

According to Sengerberger and Pyke (1992) there are two main industrial strategies that clusters have followed to meet the challenges of international competition: the "high road" and the "low road". Clustered firms that follow the low-road path seek competitiveness through low prices. This is achieved by squeezing labour costs and by operating in a deregulated market environment. Working conditions are often poor as companies rarely invest in physical and human capital. They often supply domestic markets where quality standards are less demanding and prices lower. In contrast, companies that follow the high-road path base their competitiveness on quality improvements and innovation. This strategy requires continuous technological learning and upgrading of existing technological capabilities. Export-oriented companies often restructure this way as innovation has become as essential factor to compete in the new international context.

Clusters do not always match these industrial paths. In fact, it is common to find groups of firms that, within the same cluster, follow different restructuring strategies (Brusco, 1992). However, it is clear that in the ideal model, clustering is a key factor influencing SMEs to take the high-road path. Indeed, research has shown that the success of industrial districts in Europe has been based on SMEs being able to upgrade and break into export markets (Capecchi, 1990; Benton 1992; Schmitz, 1992). In contrast, it seems evident that clusters in Latin America have not exploited the enormous benefits of spatial agglomeration to take the high-road path.

Price competitiveness remains the driving factor in the clusters studied. Take the case of Guadalajara in Mexico. A trend towards more quality conscious products is unlikely due to "the low quality of the components and raw materials supplied, and the scarce attention to fashion changes" (Rabellotti 1997:42). In Cachoeiro de Itapemirim, 95.3 per cent of the companies interviewed report that low price is the main market strategy. In Sinos Valley firms have become more quality-driven due to international competitive pressures at the bottom end. However, there are still features in the cluster (e.g. poor wages), which are common in the low-road path.

Interestingly though is the fact that changes *alla Italiana* have occurred in Latin American clusters. For instance, most clusters selected for this study have experienced increases in inter-firm co-operation and vertical disintegration of production processes (some more than others). But these positive changes together with the strong social milieu and presence of self-help associations do not seem to be sufficient for Latin American cluster to become competitive in more up-market products. What is missing then? The "collective efficiency" approach used in these studies clearly overlooks the national and firm level determinants of clusters' competitiveness as presented in the theoretical framework. Evidence from other sources suggest that shortage of technological capabilities in firms might have not triggered technological dynamism in these clusters, and that increased inter-firm co-operation has been used more as a survival strategy rather than a mean to break into global markets (Albaladejo 1999). In the same line of thought, macro-economic instabilities, a disabling regulatory environment and lack of SME-specific policy interventions might have prevented firms from doing better, clearly offsetting the possible benefits of geographical proximity. This would suggest that challenges resulting from globalisation might require more than joint action between clustered companies if they are to succeed in global markets. Thus policy interventions to enhance the competitiveness of Latin American clusters should go beyond the mere promotion of collective efficiency. Such policies should also create a conductive business environment for companies to flourish. Finally, there is also the need of interventions to boost technological capabilities in firms and promote inter-firm learning. Specific policy recommendations at different levels are spell out in the final section.

4. Conclusions: policies to foster competitiveness in Latin American clusters

One of the main questions faced by policy makers is how to foster the dynamic competitiveness of clusters in the Third world. Policy recommendations have so far been biased due to the narrow approach used by researchers. New empirical evidence suggests that policies should not be directed solely to strengthen inter-firm co-operation within clusters. To be more effective, they should be combined with another set of policies: government interventions at the national level and specific schemes to build up the technological capabilities of SMEs.

Macro-policies are important for clusters to break into external markets. Maintaining an open trade regime provides a link to global markets and exposes SMEs to new competitive pressures. Latin American governments can help the export-orientation of SME clusters by promoting gradual cuts in tariff rates and streamlining import/export regulations. Ensuring macroeconomic stability – e.g. controlling inflation and exchange rates – is also important way to allow SMEs to emerge, grow and prosper. It is also generally accepted that governments should provide an enabling regulatory and policy framework based upon:

- A stable fiscal and monetary policy setting with reasonable interest rates, a system of financial markets that provides incentives to save, and mechanisms to channel savings into investments. For instance, a lower tax rate on initial profits allows firms to retain some earnings and to increase investment as appropriate.

- Policies that minimise the costs of business licensing and registering while safeguarding public interests.

- Policies that facilitate business transactions such as infrastructure development.

Promoting SME clustering and networking means stimulating inter-firm co-operation and competition among the economic actors, creating specific location advantages for SMEs. This can be achieved through:

- Promoting programmes that favour vertical disintegration of larger firms and subcontracting arrangements with smaller firms.

- Strengthening self-help institutions such as employers' organisations and trade unions. When properly co-ordinated, these organisations can give SMEs a political voice and act as vehicles for decentralising initiatives in favour of local producers

- Enhancing the role of intermediary institutions easing SMEs' access to finance and technical services. In this regard, sector-specific service centres can play a major role since their services reflect the needs of the clients and they tend to target groups of firms with similar needs rather than individual companies.

At the firm level, initiatives should help SMEs to build up their technological capabilities. Policies should be directed to tackle the main internal problems faced by SMEs in Latin America. This would boost the technological dynamism and competitiveness of clusters. In broad terms, such initiatives should comprise (among many others):

- The investment in human development to guarantee a pool of skilled labour force, and to encourage firms to train their labour force for instance by promoting tax reduction schemes

- The enhancement of innovation and production capabilities of local firms, making good and rational use of external sources (e.g. facilitating the transfer and use of appropriate technology in SMEs).

- The elimination of limitations on innovation by designing support services on the basis of the indigenous capacities of local firms. Service providers should act as intermediary agencies in the spread of technologies through a process of inter-enterprise learning.

- The design and promotion of R&D-intensive services to encourage SMEs to move towards more innovative and therefore higher value-added products.

Clustering on its own does not guarantee industrial success. However, geographical agglomerations create a niche where well-designed and properly implemented institutional interventions could make a difference. In general terms, clusters' competitiveness requires:

- Demand-side stimulants to create a new challenge for Latin American SME cluster. Clusters have proved to perform better when there is economic dynamism and increased competitiveness.

- Supply-side responses to cope with the new challenges. It is clear that the opening up of national economies to global markets have increased SMEs´ prospects and opportunities, but in the same way, it also has increased international pressure to upgrade and become more efficient. Competitive pressures require effective support services at different levels. It is here that Latin American governments need to be more active in ensuring a stable macro-economic environment for business development, fostering clusters' competitiveness in global markets and helping SMEs to overcome their structural constraints.

References

Albaladejo, M., 1999. "Clustering in Latin America: Strategy for Survival or Alternative for SME development", in New Production Systems in Latin America: An Alternative to Import Substitution Models, IDE research series number 449, Institute of Developing Economies, Tokyo, Japan, pp. 91-133.

Altenburg, T. and Meyer-Stamer, J., 1999. "How to Promote Clusters: Policy Experiences from Latin America", World Development, Vol 27, Number 9, pp. 1693-1714.

Beccatini, G., 1990. "The Marshallian Industrial District as a Socio-economic Notion" in Pyke, F. et al., (eds): Industrial Districts and Inter-firm Co-operation in Italy, ILO, Geneva, pp. 37-51.

Beccatini, G., and Rullani, E., 1996. "Sistemas productivos locales y mercado global", ICE Nº 754, Junio, pp. 11-24.

Bell, M. and Albu, M., 1999. "Knowledge Systems and Technological Dynamism in Industrial Clusters in Developing Countries", World Development, Vol 27, Number 9, pp. 1715-1734.

Benton, L., 1992. "The Emergence of Industrial Districts in Spain: Industrial Restructuring and Diverging Regional Responses", in Pyke, F. et al., (eds): Industrial Districts and Local Economic Regeneration, ILO, Geneva, pp. 48-86.

Berger, M. and Guillamon, B., 1996. "Microenterprise Development in Latin America – A View from the Inter-American Development Bank", Small Enterprise Development, volume 7, number 3, pp. 4-16.

Berry, A. and Escandon J., 1994. "Colombia's Small and Medium-Size Exporters and Their Support Systems", Policy Research Working Papers 1401, The World Bank, Washington.

Berry, A., 1996. "Small and Medium (SME) Under Trade and Foreign Exchange Liberalisation: Latin American and Canadian Experiences and Concerns", Canadian Journal of Development Studies, volume 17, number 1, pp. 53-72.

Best, M., 1990. The New Competition: Institutions of Industrial Restructuring, Cambridge: Policy Press.

Bianchi, P., 1993. Industrial Districts and Industrial Policy: The New European Perpective, Journal of Industry Studies, Vol 1, Nº 1.

Bianchi, P., 1996. "New Approaches to Industrial Policies at the Local Level" in **Cossentino, F. et al., (eds):** Local and Regional Response to Global Pressure: The Case of Italy and its Industrial Districts, ILO, Geneva, pp. 195-206.

Berger, M. and Guillamon, B., 1996. "Microenterprise Development in Latin America – A View from the Inter-American Development Bank", Small Enterprise Development, volume 7, number 3, pp. 4-16.

Brusco, S., 1990. "The Idea of the Industrial District: Its Genesis", in **Pyke, F., Becattini, G. and Sengenberger, W. (eds):** Industrial Districts and Inter-firm Co-operation in Italy, ILO, Geneva, pp. 10-19.

Brusco, S., 1992. "Small Firms and the Provision of Real Services", in **Pyke, F. et al., (eds):** Industrial Districts and Local Economic Regeneration, ILO, Geneva, pp. 177-196.

Capecchi, V., 1990. " A History of Flexible Specialisation and Industrial Districts in Emilia-Romagna", in **Pyke, F., Becattini, G. and Sengenberger, W. (eds):** Industrial Districts and Inter-firm Co-operation in Italy, ILO, Geneva, pp. 20-37.

Cuevas, C., 1996. "Enabling Environment and Microfinance Institutions: Lessons from Latin America", Journal of International Development, volume 8, number 2, pp. 195-210.

Curran, J. and Blackburn, R., 1994. Small Firms and Local Economic Networks: the Death of the Local Economy? P.C.P. Paul Chapman.

De Soto, H., 1989. The Other Path, New York, Harper and Row.

Gazeta Mercantil Latinoamericana, 1996. Year 1, number 31.

Gazeta Mercantil Latinoamericana, 1997. Year 2, number 57.

Gelbard, E., 1990. Changes in Industrial Structure and Performance Under Trade Liberalisation: The Case of Argentina, Unpublished PhD dissertation, University of Toronto.

Gray, T. and Gamser, M., 1994. "Building an Institutional and Policy Framework to Support Small and Medium Enterprises: Learning from other Cultures", USAID, Special studies, Nº 8.

Humphrey, J. and Schmitz, H., 1995. "Principles for Promoting Clusters and Networks of SMEs", UNIDO Discussion Papers 1, Geneva.

Humphrey, J. and Schmitz, H., 1996. "The Triple C Approach to Local Industry Policy", World Development. Vol. 24, Nº 12, pp. 1859-1877.

Humphrey, J. and Schmitz, H., 1998, "Trust and inter-firm relations in developing and transition economies", Journal of Development Studies, Vol.34, No.4, pp.32-61

Julien, P-A., 1992. "The Role of Local Institutions in the Development of Industrial Districts: The Canadian Experience" in **Pyke, F. et al., (eds):** Industrial Districts and Local Economic Regeneration, ILO, Geneva, pp. 197-214.

Kristensen, P., 1992. "Industrial Districts in West Jutland, Denmark" in **Pyke, F. et al., (eds):** Industrial Districts and Local Economic Regeneration, ILO, Geneva, pp. 122-174.

Krugman, P., 1991. Geography and Trade. MIT Press, Cambridge, MA.

Loveman, G. and Sengenberger, W., 1990. "Introduction – Economic and Social Reorganisation in the Small and Medium-sized Enterprise Sector" in **Sengenberger, W. et al., (eds):** The Re-emergence of Small Enterprises, pp. 1-61.

Marshall, A., 1920. Principles of Economics, 8th edition, London: Macmillan.

Mead, D.C., 1984, "Of contracts and subcontracts: small firms in vertically disintegrated production/distribution systems in LCD's", World Development, Vol.12, No.11/12, Nov/Dec

Miller, M., and Caprio, G., 1997. The Role of Credit in Small and Medium-Size Enterprise Exports: The Case of Mercosur. Latin America and the Caribbean Economic Note 21. World Bank, Washington, DC.

Mishan, E., 1971. "The Postwar Literature on Externalities: An Interpretative Essay", Journal of Economic Literature, Vol. 9, Nº 1, March.

Murray, R., 1992. "Flexible Specialisation in Small Island Economies: The case of Cyprus" in **Pyke, F. et al., (eds):** Industrial Districts and Local Economic Regeneration, ILO, Geneva, pp. 255-276.

Nadvi, K. and Schmitz, H., 1994. "Industrial Districts in Less Developed Countries: Review of Experiences and Research Agenda". IDS Discussion Paper 339. January 1994.

Nadvi, K., 1997. "The Cutting Edge: Collective Efficiency and International Competitiveness in Pakistan". IDS Discussion Paper 360. July 1997.

Nadvi, K., 1999, "Shifting Ties: Social networks in the surgical instrument cluster of Sialkot, Pakistan", Development and Change, Vol.30, No.1, pp.143-177

Nelson, R. and Winter, S., 1982. An Evolutionary Theory of the Firm, Mcmillan, London.

OECD, 1994a. Globalisation and Regionalism: The Challenge for Developing Countries. Development Centre Studies, Paris.

OECD, 1994b. Micro-enterprises and the Institutional Framework. Development Centre Studies, Paris.

Ohmae, K., 1985. Triad Power, The Coming Shape of Global Competition. New York, The Free Press and Collier Macmillan

Piore, M. and Sabel, C., 1984. The Second Industrial Divide: Possibilities for Prosperity. New York: Basic Books.

Pyke, F., 1992. Industrial Development through Small-firm Cooperation. Theory and Practice. International Labour Office. Geneva.

Pyke, F., 1994. Small Firms, Technical Services and Inter-firm Cooperation. International Institute for Labour Studies. Geneva, research series 99.

Rabellotti, R., 1997. "Footwear Industry Districts in Italy and Mexico" in **Van Dijk and Rabellotti (eds):** Enterprise Clusters and Networks in Developing Countries, EADI Book Series 20, Frank Cass London, pp. 30-60.

Rabellott, R., 1999. "Recovery of a Mexican Cluster: Devaluation Bonanza or Collective Efficiency?", World Development, Vol 27, Number 9, pp. 1571-1586.

Sabadini, M. de S., 1998. Os Distritos Industriais Como Modelo de Crescimento Endogeno: O Caso do Segmento de Rochas Ornamentais (marmole e granito) no Municipio de Cachoeiro de Itapemirim (ES), Unpublished Phd dissertation, Vitoria, UFES.

Sengenberger, W. and Pyke, F., 1991. "Small Firm Industrial Districts and Local Economy Regeneration: Research and Policy Issues", Labour and Society, 16/1.

Sengenberger, W. and Pyke, F., 1992. "Industrial Districts and Local Economic Regeneration: Research and Policy Issues" in **Pyke, F. et al., (eds):** Industrial Districts and Local Economic Regeneration, ILO, Geneva, pp. 3-30.

Schmitz, H., 1982. "Growth Constraints on Small-scale Manufacturing in Developing Countries: A Critical Review", World Development. Vol. 10, Nº 6, pp. 429-450.

Schmitz, H., 1992. "Industrial Districts: Model and Reality in Banden-Wurttemberg, Germany" in **Pyke, F. et al., (eds):** Industrial Districts and Local Economic Regeneration, ILO, Geneva, pp. 87-121.

Schmitz, H., 1993. "Small Shoemakers and Fordist Giants: Tale of a Supercluster", IDS Discussion Paper 331, Brighton.

Schmitz, H., 1994. "Collective Efficiency: Growth Path for Small-scale Industry", Journal of Development Studies, Vol 31, Nº 4.

Schmitz, H., 1995. "Small Shoemakers and Fordist Giants: Tale of a Supercluster", World Development, Vol. 23, Nº 1, pp. 9-28.

Schmitz, H., 1999. "Global Competition and Local Cooperation: Success and Failure in the Sinos Valley, Brazil", World Development, Volume 27, Number 9, pp. 1627-1650.

Schmitz, H. and Bazan, L., 1997. "Social Capital and Export Growth: an Industrial Community in Southern Brazil", IDS Discussion Paper 361, Brighton.

Schmitz, H. and Knorringa, P., 1999, "Learning from Global Buyers", IDS Working Paper 100, Brighton, Institute of Development Studies, University of Sussex

Späth, B., 1992, "The institutional environment and communities of small firms", IDS Bulletin, Vol.23, No.3, pp.8-14

Tavara, J., 1993. From Survival Activities to Industrial Strategies: Local Systems of Inter-firm Co-operation in Peru, Phd dissertation, University of Massachusetts.

UNCTAD, 2000. "TNC-SME Linkages for Development: Issues-experiences-best practices". Proceedings of the Special Round Table on TNCs, SMEs and Development, UNCTAD X, 15 February 2000, Bangkok.

UN, 1993. "The Report of the Meeting on Creation of Indigenous Entrepreneurship and Opportunities for Small- and Medium-scale Industrial Investment", ESCWA, Damascus, 11-13 April 1993.

Van Dijk, M. P., 1993. "Small Enterprise and the Process of Globalisation and Regionalisation", Small Enterprise Development, volume 4, number 3, pp. 4-13.

Villaran, F., 1992. "Technological Innovation and Industrial Districts: Some Comments and Evidence" in **United Nations,** Technological Dynamism in Industrial Districts: An Alternative Approach to Industrialization in Developing Countries? New York and Geneva.

Villaran, F., 1993. "Small-scale Industry Efficiency groups in Peru" in **B. Spath (ed.)** Small Firms and Development in Latin America: The Role of Institutional Environment, Human Resources and Industrial Relations, ILO, Geneva.

Visser, E., 1997. "The Significance of Spatial Clustering: External Economies in the Peruvian Small-scale Clothing Industry" in **Van Dijk and Rabellotti (eds):** Enterprise Clusters and Networks in Developing Countries, EADI Book Series 20, Frank Cass London, pp. 61-92.

Zeitlin, J., 1992. "Industrial Districts and Local Economic Regeneration: Overview and Comment" in **Pyke, F. et al., (eds):** Industrial Districts and Local Economic Regeneration, ILO, Geneva, pp. 279-294.