

Clustering: Joint Learning Experience

Clemente Ruiz Durán

**Facultad de Economía
Universidad Autónoma de México
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Emergence of horizontal cooperation

What moves small business to get together and develop clusters? How do markets push firms to interact? Is there any effective public policy that fosters firms to have a cooperative approach? This set of questions has been around in developing countries for a long time, but in most of them there is no satisfactory answer. It has been easier that firms interact under a vertical approach, where big businesses decide to develop their suppliers, but it has been difficult that small firms talk among themselves, there is no culture for doing so. This paper analyzes some cases where entrepreneurs have been able to develop a code that enables them to communicate, trying to figure out of these cases if this process is unique or if it is possible to reproduce it elsewhere.

In the late twenty century in many regions of Mexico small firms interact under the basis of individualism, in some cases they are isolated not only from foreign markets, but even from the national market. Their operation is on small communities, where they sell their products, without any reference to quality or design, they have not been able to develop a competitive approach to compete beyond the borders of this communities. Isolationism is rooted in a resistance culture from the Spaniards invasion that pushed them to preserve their prehispanic culture. Through time all these communities has preserved some of their culture, through a silence code, that allows them to interact with the modern world, without accepting what can be called the national culture. Firms are located in traditional sectors like garment, furniture and foodstuffs, with low value added more resembling handicrafts like Indian cultures, rather than industrial production. Interaction is occasional and unorganized, and they could be found in small towns or in urban areas, their basic characteristic is low value added and isolation. Its operation is based in high costs and small volumes, earnings are so low that hardly allows subsistence.

For analysts and public servants the response to this sort of industrial organization was to bring in agglomeration economies, in order to get lower costs and larger production volume, the typical Marshall response to splitted firm operation. Following this idea government introduced legislation on the early nineties, trying to promote the creation of conglomerates able to compete on the global economy, that they named “empresas integradoras” (eis)¹ Response was limited, although as shown in table 1, since the enactment of the program 229 such companies were created and a reasonable number appear to be reaping the predicted benefits of economies of scale in the purchase of inputs, marketing of output and use of selected services (accounting, legal, etc.), as well as the advantages of specialization among members. This sort of response has been embedded in a few areas in Mexico. Of the 229 registered experiences, more than half of them are in eight states: Baja California 14, Chihuahua 35, Distrito Federal 27, Jalisco 12, Nuevo León 13, Puebla 13, Queretaro 19, and Tamaulipas 10.

¹ In 1993 Mexican Government introduced legislation on what was then called “empresas integradoras” following the principles of the Italian Industrial District, since then the law has been modified several times, under the pressure of small businesses associations.

It is too early to judge the likely success of the program. There appears, however, to be considerable skepticism among small and medium entrepreneurs interested in or currently involved in EIS as to whether the national government is seriously enough engaged in this program to put much weight and administrative support behind it. The question is if legislation was responsible for this action or if entrepreneurs were pushed for some other reason to involve themselves in association with other firms. This sort of response has been embedded in a few areas in Mexico. Of the 229 registered experiences, more than half of them are in eight states: Baja California 14, Chihuahua 35, Distrito Federal 27, Jalisco 12, Nuevo León 13, Puebla 13, Queretaro 19, and Tamaulipas 10. It is too early to judge the likely success of the program. There appears, however, to be considerable skepticism among small and medium entrepreneurs interested in or currently involved in EIS as to whether the national government is seriously enough engaged in this program to put much weight and administrative support behind it. The question is if legislation was responsible for this action or if entrepreneurs were pushed for some other reason to involve themselves in association with other firms.

<u>Empresas integradoras in Mexico</u>			
	<u>Number</u>	<u>Associated</u>	<u>Investment*</u>
Services	30	297	952
Commerce	28	540	1545
Food	26	3040	1775
Agriculture and fisheries	19	326	360
Construction	17	180	1497
Garment	13	135	218
Handicraft	11	102	40
Metalmechanic	11	251	668
Agroindustry	10	887	832
Furniture	9	95	54
Graphics arts	7	73	99
Various	7	943	4386
Chemical	7	49	33
Electric and electronic	6	70	696
Leather and shoe	6	110	58
Textile	5	88	96
Autotransport	5	671	5094
Plastic	4	21	21
Rubber	2	44	10
Mining	2	13	8
Jewelry	1	17	12
Forest industry	1	9	12
Editorial	1	9	22
Glass	1	363	599
Total	229	8333	19087

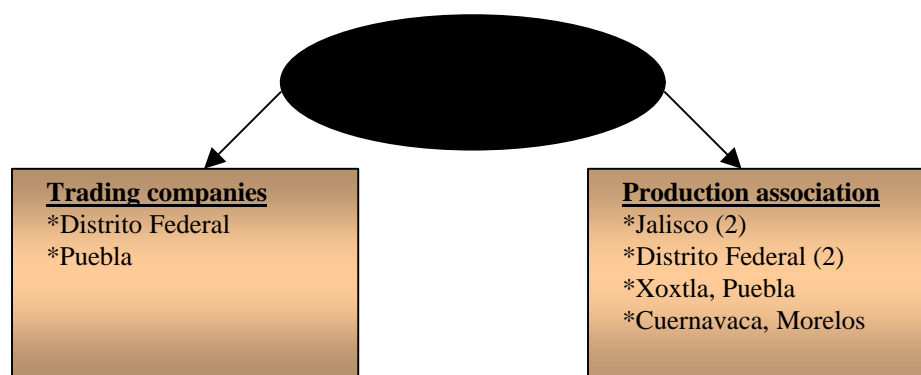
Source. Registro Nacional de Industrias Integradoras. Dirección General de Industrias. 1st of October 1997

* Investment is in thousand of dollars

To analyze specific responses we interviewed some garment industries in different regions of the country and a furniture industry in Ciudad Hidalgo, Michoacán.

Garment industry integradoras: the learning experience.

Garment inter-firm cooperation is not a new process it has been there for a long time, but what is new is horizontal cooperation. Integradoras in garment industry are not a common operation, up to October 1997 there were only 13 registered for the whole country, for this paper we focus on interviews to eight “empresas integradoras”, located in Distrito Federal, Puebla, Guadalajara and Morelos.. Among them there are two different path of development, the first one emerged as a response to trade and the second related to a more complex system of joint production. Trade systems are more simple, due to the fact that they do not have to engage in labor contracts, and/or in a complicated purchase policy, they focus only on marketing decisions. *While joint production has to go through a complex system of organizing all joint tasks, that could multiply and make the integration process unsuccessful.* Decision of what way to go, is based on the specific problem they want to solve, and of the trust history of the members engaged. Interviews were carried out in four producers integradoras and two in trading operations.



- *Initial motivation to constitute an integradora was mainly related to a decision of how to solve a specific problem: cost reduction, increasing productivity, opening new markets (as was the case with SMEs willing to engage in foreign markets with the devaluation), increase market share, consolidate supply for large orders.*
- *There were some cases of government tutoring, unfortunately bureaucracy got involved in the decision making process and led the associations to failure, as in the case of Xoxtla, Puebla. .*
- *Integradoras success was related to small numbers, the larger the number of associated members more coordination and communication problems were found.*
- *One basic argument to succeed was the production mix, the more precise the market segment willing to attend there was customers feedback (allowing quality improvement) and a better specialization (workers and managers master the production line) while large number of product within the integradora reduces quality control. Success cases became specialized in jeans and in children garment, swimming suits, women and sports*

clothes. Unsuccessful cases were manufacturing any sort of clothes, within a large range of products.

- *Design was based on traditional features rather than on day to day update, in some specific cases like in Jalisco and Distrito Federal, integradoras were connected to international markets allowing updated design.* Jalisco producers were using internet to load down some designs with success, giving them a competitive advantage and allowing them into the US market.
- *Those producers that were able to have a seasonal scheme, were able to keep their plants capacity fully utilized, allowing the integradora to have a larger profit.*
- *Homogeneity among firms* (plant capacity, machinery and equipment, work processes quality level) *shows to be essential*, because it allows complementarity among producers, that becomes a key feature when there is an increase in demand that has to be faced.
- *Education is required to make the things work.* Less educated groups rivalries are more frequent and mistrust among the members makes more difficult the coordination; usually lack of education gives as result poor organization. In those cases coordination among producers is difficult to get, that is why organization although horizontal requires one producer to be the head of the process. Leaders usually are those more educated within the community. When education is homogeneous coordination problems are solved more easily and horizontal decision making can be achieved.
- *Demand was mainly from domestic market*, those in the Distrito Federal were more sophisticated producers, being able to supply prestige boutiques and national departmental stores.
- *Local markets are the source of supply for trader integradoras*, some of them becoming regional markets as in the case of San Martin Texmeluca where traders come at 4 a.m. to an open market, that attracts traders from all over the country.
- *Trading companies were able to export to the US market*, as was the case of producers of Teziutlán, Puebla associated with a Distrito Federal producer for selling child garment abroad.
- *Self financing was the rule for most of empresas integradoras.* Finance was one of the main reasons for horizontal cooperation, most of the producers were facing financial problems at the time the association took place, and in most cases cash flows increased after the association. Some outside financing comes from customers who give an advance payment or raw materials, but with not systemic approach in the financing problem. Increased cash flows were used to increase capitalization, through the purchase of machinery, or acquisition of inventories.

- *Sales are on cash basis, not allowing to get into more sophisticated markets. Some integradoras are able to get into term sales that improve their sales volume, allowing them to grow.*
- *Grouping was not enough in most cases to get into bank financing, that still distrust the figure of empresas integradoras. Due to this restriction of the banking system Empresas integradoras rely on self financing and/or informal markets, where interest rate is on daily basis and could be up to 10 per cent per day.*
- *Although most of the empresas integradoras interviewed registered in the Secofi program, non of them get the benefits of government support programs. When asked why ? They mentioned that there are multiple procedures and that the lack of coordination among different public offices did not allow them to get the benefits that are publicized by government offices. Some of the integradoras get access to some specific programs, as those from suppliers development of Bancomext, training programs from the Labor Ministry, financial support from Nafin.*

This garment industry interviews shows that although horizontal cooperation through Empresas Integradoras is emerging as a new private sector institution, is still quite underdeveloped. Although is not a massive experience, or not even a district experience like in Northern Italy, their existence has shown some quite interesting areas for discussion. *Constitution of this sort of enterprises is not related to public policy promotion, but rather to entrepreneurs pushing for solution for some specific problem.* The best feature of the associations is that entrepreneurs has learned that getting together helps, so in this perspective there is an emerging joint learning experience.

Joint learning could be enhanced in this case if the experience is shared with other entrepreneurs, not trying to reproduce specific experiences, but rather trying to show what these Empresas Integradoras has achieved and how they have done so. Garment industry is everywhere in Mexico, it has a historical and cultural origin, is not something that emerged in the XXth Century, but something that has been there for a long time. Upgrading in garment integradoras has been in some specific areas, one that could be grouped under “organizational restructuring” that has helped them to overcome old practices and the other big area “competing in the global market”. In this last case is notorious the design improvements that has taken place, where joint action has helped them to get into internet design, as is the case of the Jalisco small towns that are being transformed by design upgrading.

Organizational restructuring has helped integradoras to improve quality, get better accounting practices, get new marketing techniques and get access to markets unknown for them in the past, like the Teziutlan producers in Puebla that got access as they told us to the huge US market, where they have been able to get into it with success.

Many of this experiences developed in mid of the crisis, allowing them to survive. Today restructured operation allows them to have an increased profit, that is allowing them to grow and get into new markets. Some cases the disappearance of the emergency is also

loosening the ties and questioning the need to be together, those are some unsuccessful stories in Puebla and Morelos.

Furniture integradoras: crisis networks.

Furniture integradoras has emerged in Mexico as a response to the crisis, there are nine registered companies, that are located in the border city of Tijuana, Durango, Michoacán and some in the Distrito Federal. In all cases firms were facing financial problems even before the 1994-95 crisis, due to low cash flows that did not allow them to pay their debts. Cash flow problems were due to the low quality of their products that after liberalization of Mexico trade were unsold due to the competitive imports that for lower prices were flooding the country. Malaysia furniture was sold at low prices with better quality than the Mexican products. Up that moment Mexico producers were assuming that low wage labor intensive industries could be able to compete in the world market, but the quality of their products were unacceptable to global markets, or to an open market like the one they were facing after 1987.

First attempts to overcome foreign competition came from the Tijuana producers in the early nineties, who tried to face large unsold inventories through cooperation among themselves, empresas integradora program was not in existence at that time, so as they failed to get access to domestic and international financial support their cooperation break up.² At the same time some other experience developed in the country. One case that has become under discussion is the *Integradora de Muebles del Oriente de Michoacán* (located in Ciudad Hidalgo), that emerged also as a response to financial distress in the early nineties.

Ciudad Hidalgo is a city of about 125,000 people located in the state of Michoacan in a heavily forested, mountainous region about an hour and one half drive from the state capital and 3 hours from Mexico City. Wood and wood products have been the mainstay of the economy since time immemorial. Furniture is the major industry. It is dominated by small and medium-sized enterprises, operated by families which have worked in the industry for generations. Before the peso crisis in 1994, there were over 3000 furniture-making firms in the city. When we visited in the summer of 1997, 1000 remained. Unemployment had risen and there was a substantial out migration of skilled furniture workers, primarily to South Carolina, a furniture making center in the United States.

Integradora de Muebles del Oriente de Michoacán was animated by a particularly dynamic and persistent leader and had a reputation as among the best institutions of its kind. It was small, composed of only 15 firms in a population which, as noted, consisted of 1000 operating enterprises and another 2000 among firms which had only recently gone out of business. But another 30 or 40 firms were connected in one way or another with subsidiary organizations which had grown up around the integradora itself, suggesting a certain leverage on the industry as a whole.

² Producers has submitted a proposal titled "The California Cluster Project" to the Interamerican Development Bank in Washington, requesting financial support for their project for 2 million dollars.

Integradora history goes back to 1993 when at least 120 enterprises faced financial distress due to the inflexible attitude of the banking sector, so they decided to organize themselves for this purpose giving birth to “Union Regional de Tajimaroenses pro defensa de Intereses

This association helped them to constitute a “Reactivation Fund” with the local government support and derived in the constitution of an empresa integradora. In this case horizontal cooperation emerged from the financial distress, not as a response to competitiveness problems as in the case of the Tijuana case.

Association was seen as a way to overcome financial distress as main goal, first steps of cooperation among the firms was to develop an accounting system and solve legal problems for all the associated firms. Accounting allowed them for their first time to get real costs, that helped them to solve legal and fiscal demands. This first step in cooperation thought them that cooperation could help them also to solve other problems, like their lack of competitiveness, so they decided to design a program to improve the quality and the marketing of their products. For that purpose they contracted a set of consultants to advise its members on how to improve the quality of their products and the efficiency of operations. These were of particular interest for them since quality was one of the principle problems of traditional industries trying to compete in the more open economy which we had identified in earlier studies, and quality problems were closely linked to plant layout and work flow, which are important determinants in the efficiency of operations as well. The integradora was also promoting common marketing arrangements designed to increase maximum feasible order size, another of the problems we had identified earlier. These had not yet come to fruition but seemed to be proceeding smoothly. A third dimension of the program was the organization of common purchasing to obtain quantity discounts available for larger orders was not a success. Its failure was closely related to the shortage of working capital and turns out to be illustrative of the ways in which distortions in the capital market, aggravated by macro-economic adjustment policies, are molding the country's industrial structure. Finally, the entrepreneurs of Ciudad Hidalgo, are an endless fund of anecdotes about the political and administrative adventures which vividly illustrate the way in which the prevailing ethos of public policy undercuts programs of this kind, quite indecently of the economic and technical obstacles to their success. The consultants which the integradora had hired had made them painfully aware of their limits the quality problems were largely a matter of attention to detail and a heightened consciousness of the sensibility of the customer. This was incidently not simply the international customer, but increasingly the Mexican consumer whose tastes were being formed by the availability of imported goods under the newly open trading regime. But as one of the managers explained, it is no more costly to produce a relatively high quality piece of furniture than a low quality one. An example which he offered was the way in which wood was selected for different parts of a cabinet; previously he had been indifferent to the presence of knot in the wood but now he placed these in the back or the interior and used only smooth surfaces in the front. A similar example of an essentially costless quality improvement -one which comes from the design consultant in Mexico, not from Michoacan- is the shape of a dressing table produced in Mexico for the European market, which did not provide sufficient space for the knees of the foreign clientele.

But while the discussions of quality with the proprietors revealed how much a relatively small input of consulting service can do to improve the product, the discussions also revealed the limits of such advice: our respondents had learned to spot and overcome specific design defects but they had not absorbed the "broader" sensibility from which the consultant was working. Thus, one owner who proudly unlocked a just completed cabinet to show us the changes which had been made to improve the look and finish of the interior was indifferent to the fact that the lock was stuck and he had to force it open or that one could feel exposed nails on the interior roof. The key which he used to open the cabinet had initially been stored in a plastic bag taped to the inside of a drawer; after we had inspected the cabinet and he had closed and re-locked (again forcing the lock), he casually dropped the loose key into the drawer leaving the empty plastic bag still taped to the side.

Another example of the unevenness and inconsistency in the level of quality and design was a folding ironing board which the proprietor of another shop brought out to show us. He had copied the basic design from the mail order catalogue of an American company, which he also brought out to show us, but had changed it by adding a wire laundry basket which slides out from underneath. The basic design was quite clever and the laundry basket innovation ingenious. There was even a certain elegance to the lines of the copy not present in the original model. But the laundry basket fit too tightly on the runners, and the proprietor almost broke the piece in trying to show us how to pull it out. It was if, having gotten his ideas from the catalogue, he had never seen or physically handled the products with which he was essentially competing. Our informant in Mexico City, on the other hand, might have said that the design was an example of the arrogance of craftsmanship, the design was too complicated for quality production; it was too clever.

At any rate, in the contrast between what the shops in Michoacan learned from their consultant and what they did not, one sees reproduced exactly the same limits uncovered in our earlier study of the relationship between Mexican subcontractors and their American partners. The partners teach their contractors how to meet the quality standards for the specific items they are asking them to produce. But the learning tends to be by rote, how to spot and overcome the problems encountered when producing the specific models in question. The subcontractors are not learning about what "quality" is or how to maintain it. Hence, the U.S. partner has to station its engineers virtually permanently at the plant in order to retrain its personnel each time the product is altered. Not only do the Mexican firms then remain dependent on the relationship, but since continual reinvestment in "quality" is constantly required, there is little to hold the partner over the long term. If cost differentials change in the interim, production is quickly shifted to another country, and while the subcontractor often believes he has learned something which will enable him to operate independently, this generally turns out to be much more difficult to do than anticipated. It is possible that repeated exposure to quality in an increasingly wide range of specific products will eventually lead to a general sensibility. And one can easily see in the case of Ciudad Hidalgo, where there is every incentive to develop this sensitivity, how a consultant might work to produce it. But there is no evidence that this is what is occurring or that anyone engaged in this endeavor is aware of the problem which needs to be addressed. The ironing board example, moreover, suggests that it may only be possible to

develop the requisite "sensibility" by hands on contact with a wide range of "quality" products. Other communities of small firms that have managed to parley craft skills into internationally competitive products, such as those in Central Italy which developed spontaneously or those in Chile which have been aided by government programs, have engaged in extensive travel to visit trade fairs and department stores abroad.

What is true of quality is equally true of productive efficiency. One of the shops which we visited was contained in what is essentially a huge square yard, surrounded on all sides by twelve foot high, cinder block walls. The front wall is pierced by gates, which, when open, leave ample room for large trucks to drive into the interior. Around the other three sides are long sheds covered by corrugated metal roofs. The center is an open courtyard. The proprietor showed us how the shop had been reconfigured by a consultant. Raw material inventory was neatly stacked in the court yard. Work was all done in the covered sheds. Operations were arranged in sequence so that work in progress flowed in a classic horseshoe pattern, from the preparatory processes at the beginning of the first shed on the left down the side and along the back where most of the electric wood working machines were kept to the finishing operations which were performed at the end of the third shed opposite the place at which the work had begun. But the shop was completely clogged with work in progress, pieces of different items, cabinets, tables, chairs of all varieties, arranged every which way. There were no proper aisles. The children who did the lighter operations scurried around, climbing over one piece and under another, barely missing barrels of varnish which stood here and there, uncovered collecting on their surface the sawdust and wood shavings which the slightest movement churned up off the shop floor. Except for the boards neatly stack in the center courtyard, it was utter chaos organized in the shape of a modern factory. The proprietor had adopted the plant layout as one might a magic formula without really understanding why. Perhaps as with quality, he will come to understand the underlying rationale for the consultants recommendations over time but the process through which that was likely to happen had only just begun.

The activities which the leadership of the integradora viewed as least successful were the attempts to pool orders of raw materials so as to obtain quality discounts. The problem here was the shortage of working capital. Firms purchased in small quantities at frequent intervals because they did not have sufficient funds to hold inventory. Indeed, they were often dependent on sales -or, since large stores typically paid in 60, or even 90 days, the actual payment of accounts- for funds to purchase new inventory. These findings paralleled those in our earlier study of the garment industry. The extreme case was a family shop which brought materials in the morning, made up jackets in the afternoon and sold them in outdoor markets in the evening to get enough cash to buy materials again the next day.

These patterns were symptomatic of the high cost and/or absolute scarcity of finance in Mexico. One of our respondents traced this problem in Michoacan to the nationalization of the banks in 1982, which she claimed had worked to channel local savings to Mexico City. The importance of local banking, with loan officers who knew the customers firsthand and could judge them individually, as underscored by the relatively primitive bookkeeping arrangements and the way in which business and household finance was intermingled. The

viability of one of the member firms in the integradora, for example, was threatened by the withdrawal of funds to pay for a major medical operation of the elderly father of the family, although this particular firm appeared to be one of the most efficient and creative of the group. In another case, the firm was financed by mortgaging the family house and car, and the crisis had temporarily thrown the whole family into the street.

Whatever the long term impact of nationalization, however, the shortage of credit had been greatly aggravated by macro-economic policy. Even before the peso crisis, high interest rates and restrictive lending policies had made it very difficult for small companies to obtain credit. Credit policy became even more restrictive in response to the crisis itself. In our earlier studies in the garment industry, we noted that credit problems appeared to be a major factor driving Mexican firms into maquila partnerships with U.S. companies, since through these arrangements they were able to obtain materials on favorable terms from their partner's suppliers in the U.S. In some maquilas, the U.S. partner actually supplied cut materials itself to stitching shops across the border.

- 1) Learning process began not at the production level, but at the financial level. At the beginning of the nineties when they decided not to honor their debts, they were forced to learn the accounting process, forcing them to organize their enterprises.
- 2) the lack of funds does not allowed them to operate in a more efficient manner, that is the case with the lack of a stove for wood drying. Also the lack of funds and the practices of the purchasers (delay in the payments) makes the shortage of working capital more acute.
- 3) lack of technology does not allowed them to get into more sophisticated materials (like encino) so they get more cheap wood, and the quality problem increases.

Horizontal joint learning. What have we learned ?

As mentioned above horizontal cooperation among traditional sectors producers is an emerging private sector institution, where firms have begun to find a language to talk to each other. Up to this point their dialogue has been related to crisis situation, or to short term problems that has been found by producers that could be solved through cooperation. Is still a weak dialogue, where producers are beginning to know each other, where there is not trust relations, they are still building a common language for dialogue. Some clusters have their origins in shocks like the outright failure of larger firms or the pressures of macroeconomic events and the like. ***Why this process is taking place today and not in other crisis moments, like in the seventies or the eighties?*** Although is not clear, it could be argued that it is due to the strengthening of local organization through out the country, combined with the trade opening cum recession of the last few years. Decades of public expenditure are finally materializing in market interconnection, better local infrastructure, and improved labor skills. All this social infrastructure, has led to a learning environment, that supports what Morgan argues “learning is predominantly an interactive and therefore a

socially embedded process which cannot be understood without taking into consideration its institutional and cultural context”³

Within this context, it could be argued that the setting for SME horizontal cooperation depends on the physical, human infrastructure, the degree of mutual interest among firms, the level of social cohesion, and (influenced by the cited factors) the firms capacity to interact effectively and to undertake collective action, e.g. through business associations. These factors determine both the degree of success of inter-firm interaction and the extend and ways in which the government can be productively involved, including such background activities as setting the rules of the game in the market, providing relevant education and training and so on. This sort of factors had combined themselves in some regions in Mexico, where geographic clustering has occurred in traditional industries, usually grouped in small towns or confined segments of larger cities, rather than in higher technology sectors like electronics, metalworking, computers software, etc. more frequently found in larger urban centers.

Networks of small firms, collaborating through specialization have been the key to the success of many industrial districts in developed countries -and more particularly in Italy, which figures prominently in the discussion of clusters. *In this so called “Italian model”⁴ the key to competitive success in such districts has not lain in especially low factor prices (as one would expect in developing countries) but in the collective efficiency of these group of firms.* Piore and Sabel⁵ argued that the vitality of the small firms in the “Third Italy” lay in the cooperative competition among communities of enterprises grouped in particularly locations and on the broad skills of the laboring.

In the Italian districts many of the firms are sophisticated producers, something which is less frequently the case in clusters in Latin America.⁶ But, there is much that common to most clusters. Production units often deal with each other not only via price signals of the market but also through a variety of co-ownership segments, informal contracts and social ties⁷, most of which tend to be strongest when the parties are in close contact. *Clustering tends to develop where the contribution of such informal relationships to a firm’s producing different things and the latter mainly among those doing the same thing. Cooperation can*

³ Morgan K. “Learning by interacting: inter firm networks and enterprise support” in **Networks of Enterprise and Local Development** OECD 1996 Pag. 53-65

⁴ Cossentino F., Pyke F., and Sengenberger W. Local and regional response to global pressure: the case of Italy and its industrial districts. ILO Research Series 103 First Published 1996.

⁵ Piore M. and Sabel C. The Second Industrial Divide: possibilities for prosperity Basic Books 1984.

⁶ Humphrey J. Industrial reorganization in developing countries: from models to trajectories. World Development Vol. 23. No. 1. 1995.

⁷ A group of small furniture producers in Guadalajara, who constituted an Empresa Integradora in 1994, exemplify several general principles. Formed mainly with the objective to achieving economies of scale in purchase of inputs and sale of product, they have with some effort achieved a degree of standarization of product and at time of interview (1996) sold half of their output collectively. The group’s formation was induced in part by the downturn of the Mexican economy; representatives of this and several other groups indicated that the Mexican businessman is very independent and not prone to cooperate. Both wives and children tend to participate in group activities and there is considerable social interaction among the families -our informant indicated that this was important, *inter alia*, to avoid destructive jealousies.

act as a sort of informal insurance against the instability of demand and profits for individual participants.

Group success depends on both supply and demand conditions the capacity to turn out a competitive product (good quality, price, etc.) and effective linking to markets. The role of demand, and hence of buyer and traders, is often a pivotal one. External (demand) factors often have a definitive influence on the way horizontal cooperation takes place. Successful customer-oriented assistance programs may work through participation at trade fairs, through public procurement, or through SME delivery contracts with large enterprises.

Minimum levels of contact, trust, and potential mutual benefits may be necessary to underlie inter-firm cooperation. Once it exists for some types of interaction it is more likely to deepen and to extend to other areas, suggesting “economies of scale” in cooperation. Clusters and districts, wherever found, tend to be embedded within a cooperation-fostering culture, based in varying degrees on family structure, ethnic groups, political parties, the church and/or other loci of ethnic/cultural affinity. The main question is whether the sort of easy and cooperative relationships to which this culture contributes can be achieved by accumulation of “practice” as well as by historical legacy. Such cohesiveness contributes to lower transactions cost by providing a high level of trust among members of a group; possibly also it tends to imply a greater homogeneity of objectives, behavior patterns and like, which may in turn facilitate cooperative interaction.

Members of most cultural groups are likely to interact more easily with members of the same group, but groups may also differ in their general proclivity towards collective behavior. However, insiders and outsiders comment that the typical Latin America businessman is highly individualistic, and not easily inclined to collaborate or to place a high degree of trust in partners. As mentioned at the beginning of this paper, individualism is related to a resistance culture, so cooperation is easier among members of the same communities, rather than getting involved in horizontal cooperation with other communities.

Level of trust and willingness to cooperate in a certain set of functions depend on the structure of the group of cooperants. *In some situations it appears that trust is based partly on the participants being of about equal size and economic power, such that none are afraid of being dominated or taken advantage of by others.* This may be especially the case in the early stages of small groups but less relevant in large clusters, where externalities of location and information play a more important role collective action in purchasing, sales, lobbying, etc. is relatively less important. If it is generally possible for potential cooperants to choose themselves in such a way as to form a group which can work well, then structure may be less a determinant of whether success is achieved than simply an outcome of natural group evolution. *Much evidence indicates that confidence in other firms capacity to do their part of the job in any collective endeavour is pivotal; members of successful “empresas integradoras” in Mexico place a striking emphasis on their need for and the time required to generate confidence in their co-members, not only at a personal level but also at a professional one.*

Almost all of the Italian clusters are spread in valleys and rural areas, and suspects that clusters based on mainly unskilled workers are less suitable for urban area, where workers can too easily be pulled away to other activities. The rural or smaller town setting tends to be correlated with the sort of cohesive socio-cultural setting noted above and sometimes with ethnic group as well. Immobility of the population is greater for logistic reasons as well as cultural ones. If small centers provide a better environment for effective clusters, a polycentric urban structure like Italy, Brazil or Colombia may raise the chances of having a large number of clusters. As Becattini⁸ observes in the context of Italy, a habit of contacts and exchanges with foreign countries increases the flow of technological and market information. Tourism triggered the export boom of up-scale clothing from Bali and of carved wooden furniture from Jepara, Indonesia (Berry and Levy, 1994).

A vigorous community of traders can contribute to the development of horizontal cooperation in general and of its export capacity. Many of the clusters which have received attention are export-oriented (as in the case of Teziutlán, Puebla). The economies most noted for large, effective SME sectors with high levels of firm interaction. The association between such interaction and export activity suggests that access to a large market is important, as size of individual orders and the usually higher quality and delivery requirements put pressure on firms and sectors and create an inducement for them to cooperate and for government (perhaps especially local ones) to collaborate with them. Since, almost by definition, a cluster is engaged in exporting at least to other regions of the country, the additional impact of being involved in international markets will be a matter of degree depending on the industry, the country and the factors. All this being said, it must also be remembered that some districts which now engage heavily in exports were developed clusters before entering world markets as is the case of the footwear industry in León, Guanajuato and Guadalajara, Jalisco.

Most of the clusters which have been studied (whether in developed or developing countries) owe their success to a combination of resources, social milieu, and institutions which facilitates inter-firm cooperation, and to satisfactory market access, which may or may not be effectively promoted through collective action. Although the role of government has not been centre-stage, it appears to have been at least reasonably important in a number of cases, not in terms of inducement, but rather with an overall environment for cooperation and trust in the communities. The task for policy makers is to assess the optimal role of the public sector and how that role varies according to the setting.

Who are the important institutional actors and what can they do?

Effective institutional support and policies to foster effective inter-firm linkages and cooperation largely overlap with those which contribute to healthy SME in a more general sense. Where SME are unable to perform well in general, their scope for effective interaction either with large enterprises or with other small firms is reduced. It is thus inappropriate and unrealistic to treat policies in support of inter-firm linkages independently of overall SME support. Strong overall support for SME, together with some special

⁸ Becattini G. "The Marshallian Industrial District as a Socio Economic Notion"

support for linkages, will have the benefit of making such linkages easier to achieve and more productive.

A number of institutions frequently play significant roles, either pro-active or usefully responsive, in the development of effective interaction among small firms. In the specific case of clusters, it appears that the main and early initiatives usually come from firms or from private sector institutions⁹, but the collaboration or at least non-opposition of those representing labor and government are clearly important as well.¹⁰ The labor side matters especially when there has been a history of conflict and where efficiency requires labor flexibility or other “concessions”. In less-urban settings labor institutions may not be developed enough to be relevant. Government may play a key indirect role by facilitating the creation and effective interaction of the private sector institutions. Several general points deserve emphasis. First, in the context of clusters (or the groupings) policy should generally be designed to take advantage of inter-firm cooperation and to foster it. Provision of services on a group basis often makes sense (by lowering average, cost, etc.); for clusters it is the more desirable since firms are already engaged in relatively high levels of cooperation and there is a payoff to furthering that level, especially in nascent clusters. Second, the apparent correlation between good markets access and cluster success, coupled with the fact that for many small firms (whether in clusters or on their own) marketing is the biggest challenge, suggests an emphasis on that function.

Local associations are typically the first visible manifestation of clusters. Trade associations can compensate for scale deficiencies. Trade associations and even trade unions are tending to supplement traditional bargaining and representation roles with more development activities. In Mexico, Camaras were traditional corporate power arms, today with the introduction of new legislation, firms are free to associate to this business associations. If Camaras are able to change their attitude toward, playing a more active role in promoting small business association, they could become the center of horizontal cooperation among firms.

Becattini¹¹ argues that the presence of local banks was important to the success of more Italy’s industrial districts. In most countries of Latin America the private commercial banks are uninclined to service smaller firms, unless given special incentives to do so, incentives like those created by World Bank credits designed for on-lending to SME. The role of the specialized development banks as a source of SME finance is diminishing as part of the financial reforms. The relative lack of bank support for SME in Latin America at the present provides a contrast with the situation in some of the countries where this sector has been

⁹ Recently in Mexico there has been the creation of Consejo Nacional de Empresas Integradoras, A.C. and of the Instituto Mexicano de Empresas Integradoras, S.C. to promote clustering nationwide. Up to now they have 122 enterprises involved and they charge a quota to their members in order to fund new operations, the fund is of around US2.5 millions dollars, that allows them to participate in different projects of traditional industries.

¹⁰ In Mexico there has been a non cooperative approach between government and those agents involved in the promotion of empresas integradoras, giving as result a zero sum game, for policy makers.

¹¹ Becattini Giacomo. Italy in **Reemergence of Small Enterprises: Industrial Restructuring in Industrialized countrie** Institute of Labor Studies Geneve 1990

most successful (e.g. Japan). Although strong bank support for SME in general appears unlikely for the time being, those SME's organized into clusters may have better luck. Joint liability among several small firms may be useful as a way to diminish the risk-avoiding reaction of the banks.

Educational and training institutions of one sort or another are important to the success of most clusters. Universities are especially relevant to high tech firms and clusters. More generally, the firms making up a cluster tend to need the same skills in their workers, and it is a short step to recognition of this and to taking the steps to satisfy them.

Government policy and support to inter-firm cooperation can be indirect or direct. Sometimes strong general support for small firms may be most useful, by contributing to productive high performance firms. Sometimes the main form of support will be in fostering private associations. Key supports should be given to training and education, though in some local regions governments should provide financial services through local intermediaries, marketing, materials purchasing services, and managerial consulting services. The division of labor between governments and other organizations unions, business associations, cooperatives, and even religious organizations varies from community to community.

Though most existing clusters have arisen endogenously, what and how much public policy can usefully contribute to the early stages of cluster formation is important, so particular interest attaches to those cases where it appears to have help. In most Latin American countries, there was until very recently little participation by local governments in any form of support for SME, partly because of their very limited functions in the highly centralized administrative systems. With decentralization proceeding this situation is changing. Many examples from around the world indicate that, given reasonable resources, local governments are better placed and better motivated to become usefully involved than are their national level counterparts. The hand of local government has been clearly visible, albeit not dominant in most of the better-know clusters in Latin America.

Given the frequent lack of administrative capacity and recent introduction of local governments to certain functions, effective collaboration among levels of government will remain very important for the foreseeable future and important functions and contributions will need to come from the central government.

Overall Policies to Improve Horizontal cooperation within clusters

A recurring background question is whether a high level of inter-firm cooperation is feasible in the absence of a well-defined industrial policy which sets fairly clear directions for the future evolution of the sector. Hillebrand¹² articulates the key arguments. "Countries which fail to develop a strategic perspective as a guide for cooperative and government action and largely rely on spontaneous, ad hoc reactions and process of trial and error underestimate in particular:

¹² Hillebrand W. Industrielle und Technologische Anschlussstrategie in Teilindustrialisierten Landern. German Development Institute. Berlín 1991.

- the importance of physical and above all non-physical infrastructure for the international competitiveness of enterprises;
- the time it takes to develop the main determinants of international competitiveness (human capital and technological infrastructures), and
- the adverse effects which uncertainty and risks have on aggressive corporate strategies”.

With respect to the overall policy framework within which small firms policy is located, two broad tendencies may be distinguished. In the approach followed by the most dynamic East Asian countries there is broad support from industrial policy and from investment-positive macropolicy for industry in general and certain lines in particular; this base is complemented by special assistance to SME. The alternative approach (followed by most other countries) involves just the assistance to SME, usually consisting of special credit lines, industrial parks, technical assistance, regulations governing contracts, etc. Given the general shift toward more outward-oriented development strategies, the range of instruments available to implement any given industrial policy has tended to fall over the last decade or so. It is true, however, that new approaches to industrial and technological policy differ significantly from the hierarchical control concepts popular in the past. They require social actors who are efficient and capable of compromising, learning and transformation and they may be effective with less apparent policy space than was available in the past.