

---

## COLLECTIVE EFFICIENCY: A WAY FORWARD FOR SMALL FIRMS

### Summary:

There is mounting evidence that clustering and networking help small firms to compete and grow. By working together, firms can gain the benefits of collective efficiency, enabling them to challenge larger competitors and break into national and global markets. Many of the most impressive examples – in Italy, Brazil, Pakistan, and elsewhere – have emerged largely spontaneously. But research suggests that governments can assist the process. The keys to success seem to be a customer-oriented focus, a collective approach, and a cumulative effort to ensure continuous, rather than one-off, improvements.

### Problems faced by small firms

In the past two decades, small and medium enterprises (SMEs) have become one of the main targets of policies aimed at creating growth and employment in developing countries. Helping small firms develop is not an easy task, given the constraints that SMEs face. Many of these are due to lack of access to:

- **raw materials and components** – owing to the absence of local suppliers, or an inability to obtain inputs from abroad;
- **finance** – due to discrimination by banks or the high costs of dealing with a large number of small firms;
- **technology** – if it has to be imported, or because the initial investment costs are too high;
- **product markets** – either due to a lack of contact with market traders, or an inability to effectively market and advertise their products;
- **government** – because of their limited political weight and bargaining power.

On their own, small firms find it hard to overcome these barriers. There is increasing evidence, however, that it is not the size of firms that is the major problem. Rather, it is their isolation – the fact that they are operating alone in a competitive environment. This is where networking and clustering can help.

### How clusters and networks help

A cluster is a group of firms concentrated in one geographic location and working in the same sector. Firms may or may not be actively collaborating. A network is a collection of firms working in cooperation, though not necessarily in the same place. Both types of grouping can give firms competitive advantages.

There are two aspects to the 'collective efficiency' gains that can be achieved:

- **local external economies** – these are benefits which occur purely from the concentration of firms in the same town or region. Such groupings attract local suppliers, giving all firms better access to inputs and raw materials, and helping create a pool of skilled workers.

- **joint action** – through firms consciously cooperating, or joining forces in business associations and other groupings. Joint action can bring a number of benefits. For instance, producer associations can help to open up new overseas product markets and increase small firms' access to government support services.

### The anatomy of a cluster

The Sinos Valley shoe-making cluster in Brazil has been central to the country's emergence as a major shoe exporter. The make-up of the cluster can be seen from these 1991 figures for the number of firms and workers involved.

Activity/Industry	No. Firms	Direct Jobs
Footwear manufacture	480	70,000
Components	223	28,000
Tanning	135	22,000
Service industries/workshops	710	18,000
Leather articles	52	4,900
Others	106	4,900
Leather & footwear machines	45	3,600
Export & forwarding agents	70	2,000
<b>Total</b>	<b>1,821</b>	<b>153,400</b>

Source: Schmitz 1995

### Successful clusters

Some of the best known examples of industrial clustering come from Italy where, in the 1960s and 1970s, there was a surge of growth in the Northeast and Central regions of the country, areas not previously associated with strong industrial capacity. In a number of sectors, groups of firms clustering together managed to break into very competitive export markets, establishing a strong position in world markets for shoes, leather handbags, knitwear, tiles, musical instruments, and food processing – and in the industries which supplied machinery to these sectors. They expanded production and exports at a time when large enterprises elsewhere in Europe were in decline. Perhaps most importantly, they had the capacity to upgrade their production. The close proximity of suppliers, component producers, and subcontractors, and the combination of intense rivalry between firms and cooperation in producer's associations, seemed to drive whole clusters forward.

Successful examples of clustering are not limited to Europe. Numerous cases also exist in Asia and Latin America, although they have only recently come under the research spotlight. Several are in India – for instance, the metalworking and textile industries concentrated in Ludhiana, the diamond industry in Surat, and the engineering and electrical industry around Bangalore. Mexico, Peru, Indonesia and Taiwan provide other examples. Two of the best documented developing country cases are in Brazil and Pakistan.

#### The Brazilian shoe industry

Between 1970 and 1990, Brazil raised its share in world exports of leather shoes from 0.5% to 12.3%. Largely responsible is a cluster of firms in the Sinos Valley, in the South of the country, which by 1991 was exporting nearly 100 million pairs of shoes a year, and in the process earning almost US\$900 million in foreign exchange. From small beginnings, some of the firms have grown to become large enterprises. As in Italy, the relationship between firms is characterised by both cooperation and fierce rivalry.

#### Surgical instrument-making in Pakistan

The surgical instrument industry around the town of Sialkot, in Pakistan, provides another clear success story. It produces scissors, forceps, and a whole range of specialist precision instruments. They are made from high-grade stainless steel by over 300 manufacturers, who farm out work to 1,500 small enterprises specialising in particular stages of the production process. Alongside these firms, there are an estimated 200 suppliers of inputs and over 800

units providing various types of services.

Working conditions in many small workshops are poor, and wage-rates often low. But cheap labour is not enough to explain the cluster's success; it is the connections between firms that are critical. The town is booming. Over 90% of Sialkot's output is exported, most of it to Europe and North America. Overall, it is estimated that the cluster accounts for 20% of world exports, making Pakistan the second largest exporter of surgical instruments, after Germany.

### Trade fairs as catalysts

Trade fairs provide an excellent opportunity for firms to market their products, learn about customer needs, and eye up the competition. But for small firms the cost of exhibiting, particularly in international fairs, can be prohibitive. Large fairs can also be very intimidating. Joining forces helps overcome these barriers. A shared stand allows producers to put on a more impressive show and face the world's buyers and competitors with greater confidence. It also helps create bonds between the firms participating, and stimulates the discussion and absorption of new ideas.

Trade fairs were central to the development of the Sinos Valley shoe cluster of Brazil. Joint action in the early 1960s led to the setting up of their own regular trade fair, which attracted buyers from all over the country. Later, as a first step into export markets, groups of producers went to trade fairs in the US and Europe. Organised by local business associations and subsidised by government, these groups played a vital role in connecting the existing cluster with international buyers and providing a driving force for improvement. Joint participation in trade fairs was also how ceramic producers from the Philippines launched themselves internationally in the 1980s; with external support they exhibited a range of products at European fairs.

The UN Industrial Development Organization (UNIDO) and other donor agencies have begun to help developing country manufacturers exhibit in trade fairs. The German agency GTZ, for example, has launched Protrade, a programme which provides financial and technical assistance to groups of firms, enabling them to share a stall at European trade fairs.

### Can governments help?

Most of these success stories came about without outside intervention, largely as a result of the efforts of individual groups of firms. For policy makers wishing to promote small and medium industry, they provide a tantalising demonstration of what can be achieved when the energy and initiative of small firms is harnessed. The question is, to what extent can governments assist this process – either by fostering the growth of new, embryonic clusters, or by stimulating other forms of networking and inter-firm collaboration?

It is too soon to provide a categorical answer to this question. Evidence from a number of countries, however, suggests that governments can indeed play a valuable supporting role.

In Northeast Brazil, a public procurement scheme was used to stimulate the development of a new cluster, in this case a group of firms producing school furniture (see box). Starting from quite modest beginnings, the impact over five years was substantial.

A contrasting example is the Danish Network Programme, a government-subsidised initiative which ran from 1988-93. The idea was to promote networking between firms to help them face increasing international competition. A series of "network brokers" were appointed with responsibility for particular sectors. Their job was to help identify market opportunities, bring participants together, and assist in implementing new ideas. The main challenge was to overcome firms' resistance to cooperation, and convincing groups to take ownership of their network.

The programme was successful on several counts. It achieved a high uptake among SMEs (over five years, more than 5,000 enterprises became involved in forming networks), and it has helped many of them to compete more effectively. Although aspects of the programme have been criticised, the approach used has sparked interest in other countries. Variations on it are being tested in the UK, Spain, Norway, Canada and New Zealand.

A similar approach has been tried in Chile, where in 1990 the government agency, SERCOTEC, introduced an initiative designed to encourage networking between groups of firms, and provide a focus for channelling support to small firms. A series of sub-projects were established, each involving three stages:

- **preparation** – in which officials work to identify firms in a particular locality, diagnose their problems, and establish the credibility of SERCOTEC;
- **consolidation** – in which a manager is appointed to coordinate the network, act as an interface with various government and marketing agencies, facilitate the take-up of training and other support services, and develop better inter-firm relations;
- **independence** – after three years, participating firms are expected to take on responsibility for the manager's salary. The idea is that the benefits to the participants are great enough for private initiative alone to sustain it.

Although the programme is still small, early results have been encouraging. Most participating firms succeeded in gaining access to new domestic or international markets. The majority of networks also showed the capacity to be self-sustaining. Government officials have been sufficiently encouraged to develop a new initiative designed specifically for exporting firms.

These examples show that a collective approach to SME support can work, even in situations where previous linkages are limited. By working together, firms were able to improve their collective efficiency, increase their competitiveness, and enter new markets.

In all three cases, the programmes were able to overcome initial scepticism about the benefits of cooperation. For individually-minded entrepreneurs, with an instinctive mistrust both of competitors and government agencies, this can be a significant hurdle.

### Fostering a new cluster

The State of Ceará, in Northeast Brazil, shows the potential gains from a collective and customer-oriented approach to SME promotion. In a scheme jointly organised by SEBRAE, the Brazilian SME promotion agency, and the state government, demand for school furniture was channelled to a group of small firms in the small town of São João do Aruaru. By putting their association at the heart of bidding for and coordinating contracts, the scheme ensured that participating firms had an incentive to learn from each other and monitor each others' performance.

It also facilitated learning from SEBRAE; association members began to meet prior to dealing with technical support staff, in order to discuss the issues which were of most concern to them. Small producers also faced the challenge of having to win the confidence of a sceptical buyer, as many in the state government had to be convinced that small local producers could deliver on time and to the quality standards required. This type of customer-orientation provided strong pressure for improvement, and for mutual learning among the participating firms.

The impact on the town was startling. When the programme began there were only four sawmills in the town, with just 12 employees. Five year later there were 42 sawmills, with about 350 workers, and a further 1,000 people directly or indirectly employed in the woodworking industry. Importantly, the customer base has been diversified over time, so that now over 70% of output goes to the private sector.

Source: Tendler and Amorim (1996)

### The Triple C Approach

Comparing experience in different countries, there are three factors which seem critical to the success of schemes aimed at encouraging the growth of small firms. To be effective, interventions need to be:

- **customer-oriented** – efforts must be driven by the needs and demands of the customer. This forces firms to face up to underlying problems of competitiveness. The most successful interventions are those which have helped firms to learn about their customers, and then introduce the changes and innovations needed to meet market demands.
- **collective** – outside assistance is most effective when it is directed at groups of enterprises, rather than individual firms. This means working with business associations, producer groups, and other industry alliances. Where they do not exist, support can be linked to the formation of such groups. This has two advantages – it is more cost-effective than assisting enterprises individually, and it helps to develop constructive relationships

between firms, which can improve their efficiency and increase the potential for learning from each other.

- **cumulative** – one-off improvements are not enough; if firms are to remain competitive they need to be able to change and develop in response to new market conditions and new opportunities. The objective should be to help generate this capacity within groups of firms so that in the longer term public support is no longer needed.

Added together, these elements represent a fresh approach to SME promotion, which has been dubbed the 'Triple C Approach'.

### A new way forward

How to foster small-scale local enterprise is a concern for policy makers worldwide. What has changed in the 1990s is that economies are more open than in the past, and international competition much fiercer. This makes the task both more difficult, and more urgent

The collective approach described here is no 'quick fix'. But it does offer a promising alternative to traditional methods of assisting small firms, the weaknesses of which are well known. In the past, the policy has generally been to target support to individual enterprises – usually through a combination of credit schemes, grants, technical assistance and other help. The problem is that these initiatives tend to be too supply-oriented, focusing on inputs to production and ignoring the crucial question of who will buy the firm's outputs. Another drawback is that programmes are rarely sustainable, since the cost of reaching a multitude of small firms is very high, and the likelihood of significant cost recovery small. At best, programmes have a one-off effect on the performance of firms that are targeted, and rarely produce the capacity for self-help and continuous improvement.

The collective approach is still in its early days. Proven examples are too few for firm policy guidelines to be drawn. Further experimentation in different social and economic settings is clearly needed before the scope and limitations of this approach can be truly gauged. But the signs are encouraging. Sialkot, the Sinos Valley, and the other successful examples cited, provide compelling evidence that by working together small firms can grow and compete in today's global markets.

### Further reading

Humphrey, J. and Schmitz, H. (1996), 'The Triple C Approach to Local Industrial Policy', *World Development*, Vol.24, No.12

Nadvi, K. (1997), 'The Cutting Edge: Collective Efficiency and International Competitiveness in Pakistan', *IDS Discussion Paper 360*, Brighton: IDS

Schmitz, H. (1995), 'Collective efficiency: growth path for small-scale industry', *Journal of Development Studies*, Vol.31, No.4

Tendler, J. and Amorim, M. (1996), 'Small firms and their helpers: lessons in demand', *World Development*, Vol.24, No.3

*This Policy Briefing is based on research by IDS Fellows Hubert Schmitz, Khalid Nadvi and John Humphrey. It was written by Edward Anderson and Hubert Schmitz and edited by Geoff Barnard, and is produced as part of the IDS Trade and Enterprise Programme, funded by ODA. It also benefited from work funded by UNIDO. The opinions expressed are the author's and do not necessarily reflect those of IDS or its funders.*

*A companion edition of the IDS Policy Briefing series (Issue 9) on industrial restructuring is also available from IDS.*

*Readers are encouraged to quote or reproduce material from IDS Policy Briefings in their own publications. In return, IDS requests due acknowledgement and a copy of the publication.*

© Institute of Development Studies, 1997 ISSN 1360-4724

IDS Policy Briefings are published by the Institute of Development Studies and aim to provide concise, up-to-date reviews of important development issues.

Institute of Development Studies, at the University of Sussex, Brighton BN1 9RE, UK

Tel: (+44) 1273 606261 Fax: (+44) 1273 691647 or 621202

E-mail: [ids@ids.ac.uk](mailto:ids@ids.ac.uk)