Small Firm Competitiveness in a Trade Liberalized World

Lessons for Tamil Nadu

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Abstract and Summary

• There is a growing consensus in policy circles that the path to growth for small firms in a trade liberalized world lies in their ability to learn how to upgrade their production capacities and access new and complex markets. This involves not merely access to new technology or to new subsidies, but efforts by local groups—industry associations or public agents at the local or regional level that can broker links between buyers and suppliers, between export markets, sources of customized feedback and training.

• There are few blueprints or universally applicable solutions that fit all small firms. Rather, what works and why must be learned within the context of the sector and production relations that particular small firms are a part of. What works for one set of firms may be different from what works for another set of firms. The call is therefore to foster a reflective experimentalism by establishing an institutional structure that can help firms learn from their own experience, as well as from the experience of those who have done well. Indeed, our fieldwork showed that even simple changes that generate learning could go a long way to engendering real gains in performance. These changes include: customized training, organizational changes to cut down wastage, lower absenteeism, reduce excessive worker turnover, and instituting performance standards that would help firms monitor their own progress.

Findings from the field (for details please see section 4, of Part I of the text).

• Small firms are a mainstay of Tamil Nadu’s industrial economy. They employ 80% of the state’s industrial workforce, produce for 40% of its industrial output, and account for 35% of exports. Clearly, the economic viability of Tamil Nadu’s small firms is critical to the continued dynamism of the state as a whole.

• Our fieldwork showed that some firms are doing better than others; just as some sectors are doing better than others. For example, small firms in the auto-components sector appear to be struggling the most—about 30% of AIEMA’s membership has gone under since 1985; 15% directly due to intensified competition after liberalization. By contrast, garments, information technology and even leather, are doing well now, having adjusted quite well in the face of liberalization.

• Small firms tied to low-end market segments in large urban or metro areas appear to be the most vulnerable to cheap import competition from overseas. Ironically, small firms serving similar niches in the rural interior or in small towns do not face the same pressures. Their access to intricate, socially embedded distribution networks linking them to rural markets appears to be a source of strength that non-local competitors will find too costly to replicate. The “down-market” of the rural interior, often dismissed as backward or not “growth-producing-enough” is a real source of comparative advantage at a time of severe import competition.

• Six patterns ran across small firms that are doing well:

   (1) Adoption of newer technologies and automation (e.g., a shift from manual cutting to specialized machines); but rarely in isolation from broader changes in work organization.
   (2) A focus on building an image of reliability and consistency—a real concern for prices, quality and timely delivery.
(3) A focus on soft technologies – training, logistics, waste elimination, energy audits – efforts to reduce rejections, economize on capital and cut costs.

(4) Human capital and organizational changes: efforts to reduce employee turnover and absenteeism, and boosting worker morale. Providing meals, day-care and health facilities — even if jointly with other firms — reduced absenteeism significantly in firms where women workers dominated. This improved productivity.

(5) Successful firms were not bashful about learning from anyone: the larger firms had hired consultants to advice them how to make key changes to improve productivity; others simply asked anyone they could find — other firms, government agencies, buyers.

(6) Despite the general view that small firms do not use much information technology, successful small firms routinely did. Email use to communicate with buyers, computerization of accounting and administration and some specialized, production-oriented software were the most cited uses, that firms said improved productivity. The cost of software was the major hurdle to more extensive use of IT by small firms.

- The government has made many improvements, notably in the area of credit; but interest rates remain high, and working capital continues to be a bottleneck. Ironically, successful small firms, such as in Tirupur had hardly any complaints about credit or tax rates or working capital, while poorer performing firms found credit a major problem.

- More than credit, access to markets, and strategic access to the knowledge about how to lower rejection rates, reduce wastage, and produce goods of consistent quality, and timely delivery is critical. Adopting decent labor and environmental standards is not inimical to export growth or productivity — indeed to the contrary as demonstrated by Tamil Nadu’s leather and handloom sector — both of which complied with environment (leather) standards, and labor standards (handlooms) in ways that enhanced, rather than diminished exports.

- The government’s attempts at improving infrastructure have borne some fruit. However, the complexity of clearances that are still needed, and especially ports, remain a major problem. Chennai Port (run by the central government) was universally criticized as being very problematic. Firms were responding by using the smaller Tuticorin Port, even if shipments took longer to get there.

- There appears to be a growing trend toward the private provision of industrial parks (such as Tekic). However the most problematic industrial parks are Guindy and Ambattur where ongoing battles between the industry association and the municipality (or line agencies) managing the park has led to unacceptable levels of neglect in terms of garbage collection, and water. If small firms in these parks are to be internationally competitive, it is critical that the government resolves the garbage problem in the industrial estates, and provides firms with a safe and clean working environment. Roads in all industrial estates, except MEPZ remain un-paved.

- Interviews revealed mixed responses by firms even about electric power in the state. While most government officials spoke proudly of TN being a power-surplus state, most firms said that even if that was the case, it did not translate into real gains for users. Power tariffs remained high relative to competitors in other countries, and poorly managed distribution resulted in unpredictable outages disrupted production. As one medium sized leather-goods producer reported: either power shut-downs occur totally without warning, forcing a shut-down of operations in the middle of a work day, or voltage fluctuates to such an extent that
they have to shut down production to prevent damage to their equipment. Either way production is disrupted, despite claims of “surplus power” at the state level.

- Even though firms and government officials regularly cite labor laws as being a problem for small firms, the best performing small firms did not cite labor at all as a problem; while less efficient producers routinely did.
Small Firms and their Transformation in a Trade Liberalized World

Over the past fifteen years, as countries across the globe have opened up their economies to trade, manufactured exports from developing countries have increased dramatically. Between 1985 and 1997, the share of manufactured exports from developing countries rose twice as fast as manufactured exports worldwide, and by 1997 developing countries accounted for 26.2% of manufactured trade, up nearly 12 percentage points from a share of 14.6% in 1985 (UNIDO2001: 8-10). Even more striking is the fact that nearly 70% of this growing developing country share of manufactured exports has come from just 10 developing countries, all of which (including India) except for Mexico and (Brazil) are in Asia (See Table 1 in Appendix).

With this dramatic shift in trade, has come a major restructuring of domestic production structures. In most developing countries the vast majority of industrial and service sector firms are small in scale. Collectively these firms account for the bulk of formal and informal industrial employment in most countries. As many developing countries continue to open up their economies to trade, and scale back protectionist barriers, an issue of particular policy significance is: How are small firms faring in a trade liberalized world? What are the sources of competitiveness for small firms in an economic environment vastly different from previous regimes of protection, and characterized by uncertainty, intense competition, fragmented markets and new demands for lower prices, higher quality and strict delivery schedules? From the experience of countries in developed and developing economies what lessons can be learned about the role that policy, public sector institutions and private sector actors can play in helping small firms meet the challenges of more open trade and intensified competition?

This paper reviews the evidence on small firm competitiveness from country experiences and applies them to the case of Tamil Nadu, a rapidly growing industrial state in Southern India. It does so along two dimensions. (1) The first dimension focuses on “traditional challenges” that small firms have faced, and examines how these challenges have been transformed (or not) today. These “old,” mostly supply-side challenges are: (a) Regulatory regimes facing small firms—and how these regimes have often favored large over small investment; (b) access to credit, (c) marketing assistance, (d) technological innovation and training. (2) The second dimension examines “new” challenges implicit in the transformation and “upgrading” of small firms in today’s altered competitive environment. Though not of these challenges are strictly on the demand-side, many of them are discussed from a demand-oriented perspective. They include: (a) Redefined linkages between large and small firms, and among networks of small firms, (b) learning to compete in new markets at home and abroad, and in so doing learning to find new market channels, improve quality, lower costs, and improve turnaround time, and (c) altered implications of this for how small firms think about technological and organizational innovation. These stylized dimensions—the “traditional” and the “new” are treated jointly in the text that follows.

In reviewing the experience of other countries the paper will use two organizational devices. (1) First it will focus on lessons learned from successful public
and private sector programs as a way to delimit and organize the discussion; and (2) where relevant, it will draw upon findings from fieldwork conducted among small firms and their associations in Tamil Nadu in summer 2001. Interviews were conducted with firms, business associations and government officials in four of the state’s key sectors: textiles and garments, leather and footwear, auto-components and information technology. Several features of the Tamil Nadu context make this case relevant to several other developing states and regions characterized by similar features—namely, rapid regulatory changes, rising trends of both foreign direct investment, and export growth; a diverse industrial base with substantial presence of small firms in both labor and capital intensive sectors—ranging from “buyer-driven” industries such as textiles, garments, leather, footwear, to more “producer-driven” sectors such as auto-components and “new economy” sectors such as information technology.

1. Regulatory regimes past and present

For as long as policy makers in developing countries have sought to promote industrialization and develop their manufacturing sector as a way to transform their economic base, generate employment and promote economic development, there has been a dualistic debate about the role of large firms and small firms in industrial development. The widely shared understanding among policy makers and mainstream analysts about industrial modernization was that the process was predicated on large-scale production, driven by capital formation, capital-intensity and modern technology (Spath 1990). Small firms in this view played, at best, a secondary role—as repositories of employment, meant to graduate to larger size eventually or wither away as the economy modernized, rather than as sources of dynamic growth. This may well be a false debate, but as a raft of industrial development policies popular for over fifty years in many developing countries demonstrate, efforts by governments to “deepen” their industrial base have tended to directly or indirectly favor large scale investment over small (See Tendler 2002, Tybout 2000).

In the last fifteen years, however, this debate about small firms and their role in industrial development has shifted dramatically. The debate has moved decisively away from a ‘social welfare’ attitude toward small firms—where small firms were considered weak and marginal to large firms, deserving of protection and support not so much because they were a source of dynamic economic growth, but because they provided large numbers of jobs that no politician wanted to jeopardize. An upsurge of new empirical evidence and explanations in the last two decades has not only challenged this passive view, but has come to portray small firms as integral to a region’s long-term competitiveness, and as important institutions that help build locally rooted, and diversified industrial capabilities in an era of intensified competition, uncertain markets and footloose capital.

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1 Such as easier access of large firms to institutional credit, and a variety of investment incentives targeted toward investments above a minimum scale, and special subsidies for large scale producers (see Tybout 2000 for a review of the evidence).
We begin by examining how the regulatory environment—pre-and post reform—interacts with small firm productivity and competitiveness. What does the trade-liberalized environment look like from the perspective of small firms? And how does it compare with the pre-reform protectionist period. The section examines three main themes: (1) The importance size and the debate over the “missing middle”, (2) Small firms and turnover, and (3) Effects of trade policy (liberalization) on small firm efficiency and competitiveness. In each case we review some key debates in the recent literature, and bring it to bear on the field-evidence from the Tamil Nadu case.

But, first, a brief caveat about terminology: The literature on small firms has in recent years noted that it is rather meaningless to talk to small firms as a category in its own right (See Tendler 2002, Sabel 2001). Small firms vary widely – according to the sector they are in, the market they serve, the technology they use, the organization of work within the firm, the nature of the workforce, and most importantly according to the nature of the productive and institutional relationships they are embedded in. Therefore, clubbing widely varied firms into a single category is not helpful, especially for policy purposes, because the needs of firms in different sectors are likely to be quite different. In this paper we view the overarching category of ‘small-firm’ as problematic, but nonetheless use it given the mandate of the study. But where possible, we have drawn on our fieldwork to contextualize the discussion according to sector characteristics, market segment, and nature of the production structure. We also use the term SME (small and medium enterprises) interchangeably with SSI (small-scale industry) the term that is more widely used in the Indian context.

Tamil Nadu’s small firms: How are they facing the recent trade regime change

Like most states in India, small firms are a critical part of Tamil Nadu’s industrial base. With over 380,000 small firms statewide, Tamil Nadu is home to nearly 12% of India’s 3.3 million SSIs. These small firms account for nearly 80% of Tamil Nadu’s industrial employment; about 40% of the state’s manufacturing output; and 35% of the state’s total exports (Mishra interview, 2001). Clearly, ensuring the continued viability of small firms, and facilitating their adjustment to the new global pressures unleashed by economic liberalization is an important policy concern for the Tamil Nadu government.

How then, are small firms faring in the region? Aggregate, regional and national level data show that even though small firms face serious challenges of adjustment, they are growing at rates faster—or on par—with the industrial sector as a whole. For example, industrial growth in India was 8.0% in 1999-2000 compared to 3.9% in the previous year; and exports in dollar terms grew by 11.5% in 99-2000 against a negative growth of 3.9% the previous year. During the same period, small firms grew at the rate of 8.2% in 1999-2000 (compared to a real growth rate of 7.7% the previous year).

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2 This section draws on an excellent recent review article by Tybout (2000) that presents important empirical evidence on the relationship between small firm productivity in developing countries and the regulatory environment (including trade policy)
Similarly, the output of (registered) small firms (in current prices) grew by 10.5% in 1999, up from Rs. 5.2 billion in 1998 to Rs. 5.8 billion in 1999-2000. If rural firms and micro enterprises are also included in the total, then the small firm sector as a whole contributed an impressive 6.8 billion rupees to industrial output in 1999-2000, employed 56.8 million people (of which 17.9 million was in the “modern” small-firm sector), and exported goods worth Rs. 1.1 billion accounting for nearly 69% of the country’s total exports (SIDBI Annual Report 1999-2000).

Clearly, at the aggregate level, small firms seem to be doing fairly well. But as we will see below, the performance of these firms is much more mixed on the ground, and varies widely across sectors. Small firms in some sectors are clearly doing better than others. For example, in Tamil Nadu, small firms in the auto parts sector seem to be doing the worst. As one auto-component dominated industrial association (AIEMA) reported, nearly 15% of its members based in a single industrial estate (Ambattur Industrial Estate) have closed down since 1995 explicitly due to problems with competition. An additional 14-15% of the association’s members closed down during the same period due to longer standing problems with declining profitability and weak sales. By contrast, firms in garments and leather are doing better. Small firms in the newly emerging information technology sector seemed to be doing best, despite a recent slowdown in the sector given the wider slowdown in its main markets in the US and European Union.

The rest of the paper is divided into two parts. The next sections, which form Part 1 of the paper, examine three themes that emerged as important in the field: (1) The issue of size, scale and performance; (2) the issue of small firms and turnover, and (3) the issue of how firms learn to adjust to outside pressures. In Part II of the paper we look critically at some new thinking that has emerged in the design of small firm assistance programs, and examine what kinds of approaches would be relevant for firms in Tamil Nadu.

Part I

(1) In what way does size matter? Debates about the “missing middle.”

An important policy issue that arose in the field had to do with scale, efficiency and firm size. The most common refrain among firms, their industry associations as well as government agencies was that small firms have difficulty supplying overseas buyers because most overseas buyers demand scale, and small firms do not have the capacity to meet those demands. This made it difficult for some small producers, especially in the garments and leather footwear sectors (and to some extent auto-components) to sustain their export ties, even if they succeed in entering external markets, especially in the US. Some firms reported turning down orders from overseas because they did not have the capacity to meet such large orders. When firms have demand, and orders, why don’t they simply increase capacity – or grow – to meet that demand?

Some of these firms do not grow because there are benefits to remaining small in the particular context of India’s industrial policy. The standards view about size and regulation, as several recent reviews of industrial policy in developing countries have
acknowledged, is protectionist regimes are said to be more likely to favor large firms over small. As Tybout (2000) points out: large firms often compete with imports and hence, are more likely to be beneficiaries of subsidized support from government, at least with respect to technology transfer, specialized sources of input supply, and imports of machinery and equipment. Access to the banking sector, legal system and publicly administered wage goods are of greater value to larger firms—who use more of these services—than to smaller ones who use less. Large firms are also more able to successfully lobby government, negotiate the “regulatory maze” more effectively, and become institutionally “influential enough to receive special treatment” (Tybout 2000). This biases the playing field against small firms, and they are penalized for their small size. So in the more usual case, there would be an incentive for firms to grow—despite the barriers to entry and other factors.

However, in the Indian case, the government has historically gone in the opposite direction: limiting the size of large firms through a licensing regime, and explicitly promoting small firms by using policy to shield them from direct competition with large firms in the same sector. The protectionist-era policies that helped distance—or discourage large firms from competing with small included reservation policies (which designated whole product segments for exclusive production by small firms), preferential price and procurement policies aimed at government purchases from small firms, several tax exemptions, and special subsidized lines of credit (for example from the Small Industries Development Institute (SIDBI), and Central and state level programs aimed at supporting sector R&D, and modernization programs.

Under these conditions, because there are high costs to “graduating” it never pays firms to become just large enough to attract enforcement, because they still remain too small to gain much from compliance with local regulations (Tybout 2000). Indeed, analysts of the Indian case (most notably Little, Majumdar and Page (1987)) have long pointed out that firms do not grow because: “not only would small firms [that graduate] have to cope with a higher tax burden (especially excise duties), but they would have to contend with higher labor costs and substantially higher enforcement burdens relative to what they faced by remaining small and informal (Little et. a. 1987, cf. Tybout:17). Additionally, a whole set of added benefits provided by government to small firms—subsidized credit, as well as preferential procurement and pricing policies by governments (including the Tamil Nadu government) also contribute to keeping small firms small (Tybout 2000). 3

Indeed, in the Tamil Nadu case our fieldwork provided plenty of evidence to support this view. In most industries where reservation policies restricted production to small firms—garments, leather, it was common to find firms that were large, but which had grown large horizontally, by splitting off production into many new units under a single company. For example, one garment company had a total of over 3000 workers

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3 This cluster of incentives for firms to remain small, and disincentives to grow just a notch larger than a designated SSI, leads to what the literature calls the gap in mid-sized firms in the industrial structure, or the “missing middle.”
spread over 10 units with up to 300 workers in each firm. Each unit was registered as a small-scale unit, even though the company as a whole was much larger. The same story applied in leather and footwear, and even textiles. Scale seemed critical in garments and textiles. In these two sectors, firms have routinely set up multiple plants/units, each specializing in a distinct phase of the production process—knitting, dyeing, cutting, stitching, assembly, label manufacturing (for finishing).

Horizontal, functionally specialized spin-offs in the garment sector may work well as an expansion strategy for firms that have the resources to grow. But it also leads to the bizarre outcome of placing a firm with 15-20 workers in exactly the same category, in terms of policy, as a firm with not just 300 workers, but 3000! That the latter, a large firm with 3000 workers can avail of the same tax concessions and government benefits as a tiny firm with 20 workers, is resented by the smallest producers as a perverse outcome. This anomaly is the result of India’s definition of small scale, where firms are designated as small or large based on the amount of capital invested, rather than number of workers (as it is in most other countries). Till the early 1990s the maximum amount of capital investment allowed under a SSI designation was about 0.6 million rupees. In the early 1990s, this was revised upward, to Rs. 30 million, under the assumption that small firms needed to modernize and upgrade their equipment and technology in order to face global competition. In December 1999, however, the Small-Scale Industry designation was re-classified downward, to a maximum investment of up to 10 million rupees. This lower cut-off may have brought more parity among SSIs, but as some observers point out, it has also skimmed off the most modern and best-performing SMEs from the small industry bracket.

As one government official noted, the policy of the government to historically limit the size of capital investment in small firms was driven primarily by the government’s goal of employment growth. Policy planners saw nurturing labor-intensive small firms as a critical mechanism for job generation and retention. Ironically, despite the re-classification of small firms, this objective is now clashing with the direction in which firms are themselves moving to become more competitive and profitable. A striking trend in Tamil Nadu in recent years is the drive among many small firms toward mechanization and automation as a way to improve productivity and lower costs. Most firms that have increased productivity have said they have modernized, automated, re-tooled and upgraded their equipment and technology in recent years (Interviews, 2001). Government officials acknowledge this trend toward the development of a more sophisticated tier of small (and medium) firms: Even while the weakest firms succumb to the pressures of adjustment and leave the industry, “the overall trend is toward larger and more mechanized small firms” (SISI interview 2001). The middle tier of firms in Tamil Nadu’s industrial sector—a tier that was already in place since the mid 1980s—seems to be filling out.

Case evidence from other studies suggests that the filling out of the “missing middle” or encouraging the development of mid-sized firms or larger small firms is of

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4 The government does have a distinction between small-scale industries and “tiny” units, or microenterprises.
critical importance to developing a locally rooted and resilient industrial base. Studies have found that the presence of a strong, modernized, middle-tier of firms is associated with greater dynamism and adaptiveness of a region’s industrial base. In earlier work in the garment and auto-parts industry in Tamil Nadu and Punjab, we found that it is the medium sized firms that have had the most striking export success in the wake of liberalization. They have been the quickest in (a) adopting new production practices—such as attention to quality, timely delivery and product upgrading, (b) strategically adopting new ideas, and new “soft” and “hard” technologies, (c) making the most effective use of skilled workers, and (d) doing very well in entering demanding new export markets (Tewari 2001). At the same time, this institutional importance of nurturing mid-sized firms, however, has a cautionary side to it. Some empirical studies raise caveats about the prospects of medium sized firms in some institutional environments. For example, a study of Cameroon by Gauthier and Gersowitz 1997(cf. Tybout 2000) found that in regimes where legal enforcement is weak or biased, mid-sized firms may end up bearing the heaviest tax burdens (since large firms are often influential enough to escape strict enforcement), and may not perform so well. (Since large firms are often influential enough to escape strict enforcement). This may discourage the formation of medium sized firms, and weaken those that exist.

Although medium sized firms in Tamil Nadu do pay taxes which smaller firms are exempt from, many small firms, especially those with strong export ties to western markets, have sought to upgrade their technical base, even if this takes the up to the edge or beyond the small firm investment limits. Many SME promoting government agencies say that this rising trend toward mechanization and technological upgrading among small firms, has caught them in a bind between the government’s twin goals: of retaining high levels of employment, and hence promoting labor intensive technologies, and at the same time seeking to improve the efficiency and productivity of small firms by encouraging automation and technological upgrading (e.g., shifting from manual cutting of fabric to the use of CAD-CAM cutting (Tekic interview, 2001). Even as they note that small firms are adopting better technologies and growing, they point out that small firms with 100-200 machines are the most agile and able to handle both, small-batch orders, and large orders by subcontracting out portions of the job to smaller firms. “Larger firms have more trouble adjusting to global market shifts, [at least in garments].” (Apparel Export Promotion Council 2001).

We will return to this issue of how successful firms are responding to competition, later in the paper. For now, the point we want to conclude this discussion with two points. One, that neither automation, nor technological upgrading are a panacea, of course, nor by itself a sign of competitiveness among small firms. As we will see in the next sections, successful small firms in Tamil Nadu are adopting a cluster of new practices, not just the latest machinery and equipment. Two, that scale and size are tricky issues in the discussion on small firm competitiveness, especially in the Indian context. Field-based evidence suggests that important changes are occurring among small firms in Tamil Nadu’s key industries. These changes are creating a relatively strong and increasingly competitive tier of small to mid-sized firms in several sectors that have
been able to cope well with recent changes in trade policy and import liberalization in the country.

(2) Small firms, Turnover and Exit Policy

Even though small firms are viewed as repositories of employment during periods of growth, they are regarded as the most vulnerable during downturns (Brown, Hamilton, Medoff 1990). How does this high volatility of small firms relate to their productivity? The main conclusion from empirical country cases in this regard is that firms leaving an industry are on a long-term downward productivity spiral, serving as a predictor of firms that are in trouble. In some cases, the lower productivity of plants exiting an industry reflects older technologies relative to the new entrants. The main point here that although a high birth and death rate creates volatility in the small firm sector, policies that prevent such turnover, tend to become highly costly quite quickly.

In the Indian case there is no exit policy—that is, firms with employment beyond a certain cut-off are not allowed by the government to shut down or go out of business. Instead, the government takes over the payroll of the (medium or large) company. One analyst (Pursell 1990, cf. Tybout 2000) notes for example, that nearly 14% of the country’s bank credit for industry was tied up in shoring up “sick units” in the 1980s. Today, government agencies at the state and central level are finally ready to engage in the highly political process with unions and workers and citizens to debate whether to adopt an exist policy as most of India’s other competitors have. In the field there was, predictably, considerable support for an exit policy among firms (including small firms), and wariness among workers.

(3) The “new” regulatory environment: What is the impact of trade liberalization and FDI on small firm competitiveness?

The literature on the effect of trade policy on small firm productivity presents some surprising and quite important findings. First, the standard assumption is that openness of an economy to trade will increase plant size, as firms adopt efficient technologies. The argument is that in contrast to protectionist policies that may allow relatively inefficient firms to survive, increased foreign competition is expected to push inefficient domestic producers to try to improve productivity firms by eliminating waste, exploiting external economies of scale and scope, and adopting more innovative technologies, or to shut down. That is, the efficiency effects of trade liberalization may be observed in an increase in average plant size among small firms and (presumably) lower average costs. However, micro-level studies by Tybout (2000) consistently show just the opposite: that increases in import penetration as well as reductions in protection are associated with reductions not increases in plant size. Thus, rather than improve efficiency immediately, an important finding of this literature is that liberalization may work against the (scale) efficiency of small firms in the short run (or if there are gains of efficiency, they are quite small) (see Tybout Review, 2000).
Tamil Nadu’s experience in the past fifteen years supports Tybout’s findings. After the government delicensed the textile industry, allowing anyone to enter the industry, and simultaneously liberalized trade, there was a spate of entry by relatively small firms in most of the delicensed industries, notably textiles. Firms with 400-500 spindles set up shop, in contrast to the 10,000-20,000-spindle plant that larger firms operated. By the mid 1990s, the average plant size in the spinning industry had fallen significantly (see Tewari 2001, World Bank 2000).

Tybout’s studies further find that when trade liberalization does improve small-firm productivity it is probably largely due to intra-plant improvements that are unrelated to internal and external scale economies (2000). This is an important point. Improvements in productivity, he finds, come from organizational improvements such as “elimination of waste, reductions in managerial slack,” as well as technological improvements such as heightened incentives for technological innovation, better access to good quality intermediate and capital goods, and knowledge of improved production processes. Mody and Egan (1991) in fact find that there might be a sequence to the adoption of these improvements. They find that firms that combine technological changes with key organizational changes (such as an ability to improve product quality, reduce turnaround time, reduce inventory) or precede technical changes with organizational changes (or “soft technologies”) tended to be much more efficient and productive.

The evidence from Tamil Nadu underscores the importance of non-scale factors to improved small firm performance. There was ubiquitous emphasis in our interviews on improving profitability by waste reduction, and energy audits. Firms across sectors reported employing these strategies and small firm support organizations regularly offered assistance with energy audits and the like.

Similarly, among firms that have adopted new technologies or expanded scale, for example, some of the most successful firms have combined the shift from manual or semi-manual production to automated machinery with at least three other things: (1) training (of workers to increase awareness about quality, product consistency, and timely delivery); (2) systematic cutting of costs through energy audits, time and motion studies to speed up the work process, reducing of wastage, and a reorganization of production to track and reduce rejection rates. And, (3) Forging “learning” relationships with buyers, or local agents and consultants."

A second finding of this literature concerns the relationship between small firm productivity and technology diffusion via imports, exports or outright technology transfer. There is agreement in many quarters that “outward oriented policies are more likely to facilitate long-run growth if technology diffuses widely among small and medium domestic firms through international transactions” (Tybout 2000). This can occur in a variety of ways: firms may acquire new technologies by reverse engineering imports, by using innovative intermediate and capital goods, or by relational interactions with foreign buyers to whom they export. A key question is: how widely are these new
technologies diffused or disseminated among non-exporting domestic firms after they are acquired by firms that are directly engaged in trade?

Recent cross-country research has some interesting answers to this question. First, though there is very little concrete evidence about the productivity enhancing effects among small firms of importing sophisticated intermediate and capital goods, there is certainly evidence that “learning by exporting” effect is found among exporters. Comparisons of the productivity of exporters and others in the same industry find that exporters do better. Case studies (Yung Rhee et. al 1984, Schmitz and Knorringa 2000, and our own Tamil Nadu interviews) suggest that long term and feedback intensive relations between buyers and small firms help diffuse new knowledge and learning among exporting firms. At the same time, longitudinal studies of exporting firms also show that many of the exporters self-select themselves into trade ties, and that they were more efficient than non-exporters before they started selling overseas (Tybout 2000:36). Most interesting from a policy point of view, however is the finding by Clerides, Lach and Tybout 1998, that when many firms have been exporting from a particular region, all firms in that region tend to enjoy lower average costs. This clearly lends support to area-based efforts by public sector agencies and business associations to deepen export—as well as import competing—capabilities among co-located firms.

Third, with regard to FDI and learning, the findings are more ambiguous. While there is evidence that FDI does seem to bring relatively efficient technologies into host countries—in that foreign owned firms are more efficient than their competitors, it is unclear how widely and extensively these technologies spread to domestic firms. In some countries (Uruguay, Morocco) there is evidence of improved performance among all firms after MNCs arrived; in others (Venezuela), domestic firms seemed to do worse as MNC presence in their industry increased. The bottom line seems to be that the firms that benefit from openness tend to be more skill-intensive than others are. (Or was it that the domestic firms did something different, institutionally and politically, to induce foreign buyers/MNCs to impart greater skills?)

In sum therefore, this section has raised several issues: (a) although small-scale production is often associated with low productivity (in developing countries), there do not appear to be major potential gains to be made from expanding scale. Size alone is not the main determinant of good performance. (b) According to surveys, small firm managers often point out that the factors that limit their growth are not technology nor even credit, but rather “uncertain, changeable policies, demand conditions, poor rule of law and corruption.” The evidence from Tamil Nadu provides several more reasons -- (c) Skill intensive production processes, export relations with feedback-giving buyers, and extended and sustained area-based export efforts to assist firms seem to lead more readily to positive learning spillovers widely among exporters as well as non-exporting domestic firms. See Tybout 2000, for an extended discussion on these points; and the next section that presents a sampling of our findings from the field about the response of successful instances of adjustment (by small firms to liberalization).
(4) Findings from the field

1. Market segment, rural and urban distinctions, and distribution channels

   1. As we noted at the outset, some firms, in some sectors, are doing better than others in response to liberalization. One example of this relates to the market segment served. Small firms supplying the low-end domestic market exclusively, or supplying to industries catering to this segment of the domestic market, appear to be doing less well than firms that are tied into the export market. Similarly, small firms in the auto-components sector are doing much worse than the garments sectors; while small firms in the IT sector were the best performers. Or are suppliers to medium sized firms, and large local firms engaged in steady exports or premium domestic markets. The former are caught between a double bind: on the one hand the government’s relaxation, in recent years, of certain historical protections for small firms—such as preferential procurement of a subset of goods used by government from small firms, price supports, subsidized raw material support, exemption from certain taxes and de-reserving some industries (such as garments) from exclusive production by small firms—has eroded the “easy” profitability of firms that were not very productive to begin with. On the other hand, escalating imports of low cost Chinese goods aimed at the low-end domestic consumer market is threatening the traditional market share of these firms. Stuck with antiquated technology and unproductive work systems, most of these firms are unlikely—in the absence of a public or private sector benefactor willing to underwrite their restructuring costs—to successfully procure financing or tutelage on their own to make the changes needed to survive.

   However, a surprising finding was that not all small producers supplying the low-end domestic market are suffering (or likely to suffer) from outside competition equally. It was interesting to find that the problem of import competition and cheaper imports from countries like China is a much bigger threat to small firms supplying low-end consumers in large urban markets around metropolitan areas than it is for firms catering to similar segments in small towns or villages in the rural interior. As one interviewee put it, small firms with dedicated and long-standing ties to small-town, rural markets in the interior are “confident” that they will survive the Chinese (or any other price-driven) challenge in the domestic market on the strength of the web of intricate distribution networks that they are a part of. Spread across the rural hinterland, and small-towns, these extensive and socially embedded distribution channels are all but invisible to outsiders. Not only do outsiders lack knowledge of these linkages, but it would also be very costly for them to build reliable distribution channels outside large metropolitan markets that in any serious way challenge or replicate the access that small local producers have to interior markets. The vast “down-market,” (or at mixed market) of the interior, then, --just the market considered un-modern and backward, compared to glamour of exports or up-market urban niches, could ironically, be the savior (and comparative advantage) of even the most rustic of small producers in staving off cheap import competition.
2. New industries and old – points of difference, and points of convergence

Another feature that stood out from our interviews was that firms in new industries—such as information technology—were doing better than firms in other sectors, not only because they were tied to a growing industry. They were doing well because, organizationally, they were operating very differently, than older firms in other sectors. This difference was not so important in itself; it was important because it seemed to be helping in (a) reducing turnover, and (b) increasing worker motivation and hence productivity. The difference had to do with how workers and human capital was integrated into the most vibrant information technology firms, or rather, how the firm and its operations seemed to be organized around the problem of human capital retention.

For example, compared to textiles, leather or garments, the chief input in IT firms is skilled human capital, rather than expensive technology and equipment. Given the emphasis in this industry on the importance of tacit knowledge and plant-specific or project specific training, small IT firms can ill-afford to continuously seek out and training new workers. In an industry where small firms compete with the largest multinationals for skilled workers, and where wages are rising rapidly, they naturally seek to retain their workers. This has led to a work organization focused on reducing turnover (quite apart from the fact that software firms are service firms, with high sunk costs of project and product development, as distinct from production firms).

Firms have sought to provide a more variable and discretionary work environment, and generous benefits to keep workers engaged. Even the smaller IT firms have extensive in-house training programs, food and transportation service—even assistance with housing, a variety of company policies to motivate employees, team-based work organization, the lure of overseas trips, and in most cases, an emphasis on variation within a narrow focus—e.g., on a particular type of e-commerce, or “resource planning focus.”

What was interesting during fieldwork, was that turnover turned out to be an important issue in a number of other, traditionally labor-intensive sectors such as leather, footwear, garments and textiles. The interesting finding was that the firms in these sectors that were doing well, and had succeeded in coping with outside competition, were all firms that had also done something to address the problem of turnover. One large garment exporter (which also produces for the domestic market) with 5500 workers in 10 factories had for a long time tried to reduce turnover and absenteeism by tying turnover to bonuses, or to give workers the incentive of piece-rate production. Despite some success its mostly female labor force still had an absentee rate of 15%—quite high. A couple of years ago, however, the company built a new health care facility on site, a crèche (day care) for children, and began to provide meals at the crèche, a pediatrician’s care, regular check-ups for children and a variety of educational activities. The firm opened a welfare office that counseled employees as needed. Within one and half years,

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5 Such as software for the ‘mobile areas’ of service sector, such as courier firms, security firms, corporate cleaning and janitorial services, or ticketing, pay-roll and credit card software for specialized groups such as airlines and so on.
its absentee rate fell from 15% to about 3-4%. Productivity went up, because consistency went up as absenteeism fell; and in house training became more effective. In a competitive environment where product consistency, quality and timely delivery is critical to retaining outside buyers, high rates of absenteeism and high turnover cannot be sustained. They hamper the absorption by workers of on the job training and formal instruction aimed to help maintain consistency. Absenteeism plagues many industries; these examples show what some firms have done to address this problem, and they show that firms that have done something to address the problem of turnover and absenteeism tend to be associated with good performance.

The point here is not a new one: it is simply that good performance in a number of sectors, whether they be new sectors like IT, or traditional sectors like garments and leather, is linked to worker-retention and regularity. Regularity and low absenteeism is associated with increased product consistency and hence better performance. In sectors where female workers dominate, it is interesting to find that non-pecuniary benefits such as day care and health assistance goes a long way in cutting absenteeism. Benefits such as these are not only the preserve of large firms, but we found that the government had wisely mandated day care facility services to be made available by all firms with workers beyond a minimal cut-off point. In many instances, this requirement had led to joint action on the part of a subset of contiguous firms, or industry associations. In one case the industry association of the local industry estate had come together to pool money from members and provide a large day care for all firms in that industrial estate (AIE interview 2001).

As explored in a companion paper (Tewari and Goebel 2002 on Productivity), we also found that an additional reason for absenteeism in sectors dominated by women was poor infrastructure availability. For example, several firms reported that their workers are late coming in, or have to routinely leave early because they have to meet (drinking) water trucks at their homes in the morning or evening. This then is an important argument for government to help improve the provision of basic services to its citizens, not only because water, shelter and transportation are basic services that everyone should have access to, but because there is also a strong productivity argument—from the side of firms, on the demand side, to have government take care of basic services so that workers are not faced with a trade-off between coming in to work on time everyday versus waiting for the tanker so that their family has water to drink.

A final, related point about productivity and infrastructure has to do with the dismal condition of most of the government’s industrial estates in and around Chennai. Apart from MEPZ, and the new estates in Irrungattukotai and around the Ford plant, all government provided industrial estates are in infrastructural disarray. Most estates do not have paved roads that are passable in ordinary times, let alone during the monsoon floods. Similarly, no tapped water is available anywhere in Guindy or Ambattur. But most distressing of all, is the state of garbage collection in the estates. The city has not collected garbage from the estates in years, to the extent that they look like large, dump-yards, rather than places of work and industry. The tariff battles between the industry associations and the municipality (or other line agencies involved) must be resolved if the
government (and industry) is serious about raising the productivity of small firms, leave alone making these firms internationally competitive.  

3. Customer-supplier relationships among the good performers

A striking feature of small firms that were doing well across the four sectors we studied, was that (a) successful firms are taking the new conditions of competition very seriously: Many of them repeatedly cited that they were doing well in export markets because of their reasonable price, concern for product quality, low rejection rates, and care about meeting delivery times. One firm said that if the buyer wants a delivery at 6pm, “we try to deliver at 5:30.” What assures good quality? Managerial vigilance, work organization, quite sophisticated equipment and in some cases, use of high quality imported inputs.

Another trait that ran across better performing firms was that they worked with or were associated with buyers who did not hunt for the lowest price, but were “willing to pay a bit more” for good quality, good quality input use, good and consistent performance with respect to quality, delivery times and flexibility. As one garment firm whose price was higher than its local competitors, noted, their price was admittedly higher, but their focus on quality and timeliness in delivery kept their buyers happy. “Once you establish a bond with a buyer, you keep your end of the arrangement (quality and delivery).” But long-term relations did not always lead to long-term loyalty by the buyer, unless the buyer cared for more than the price.

Firms of this sort seem to be prepared to take cuts in their profit margins in the short run to maintain relationships with their buyers over the long run. This often leads to innovative collaborative agreements between buyer and supplier. For example, as one Tirupur based producer of garment-labels explained, the government imposed an 11% tax on labels in June of 2001, which pushed up production costs. The firm called its buyers and informed them of the dilemma and the implications for price. Together the supplier and buyer decided that rather than cut the labels into individual pieces, the supplier would keep the uncut labels as large rolls of woven fabric as they came off the machines. This would qualify not as “labels” but as narrow woven fabric, and hence would not be subject to the tax. The buyer would then send the labels to a job-worker to be to size. Since this would be a job-working operation it would again not be subject to the label tax. The ties between the buyer and supplier clearly were open enough for them to be able to work out a joint solution to circumvent the tax and keep prices low. The supplier noted that not all buyers agreed to such an arrangement, and simply did not want the hassle of developing a new link in the chain to process their labels. In such cases the supplier agreed to cut the labels but passed along the tax to the buyer, as one would in a more hands-off relationship (Manoj Interview, July 20001)

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6 Given the poor state of government provided industrial estates, it is not surprising that there is a rising trend of private sector provision of industrial estates, water supply, and captive electric power—such as Tekie n Tirupur.
4. Technology and small firms

The currently prevalent view among local policy makers seems to be that small firms benefit only minimally, if at all, from new technologies including information technology. The evidence from Tamil Nadu is much more mixed, and more optimistic: while the spread of sophisticated technologies has been slow, our interviews suggested that many small firms had indeed benefited in some way for other from new technologies. The most common kind of benefit came from the use of email for swifter and cheaper communications with customers and input suppliers; the second most commonly used service by small firms was the computerization of accounting and administration tasks. Many firms reported they had increased productivity this way, by lowering non-production costs. This technology however, is clearly labor displacing. Several firms said that after computerizing their accounts and administration, two people could do the work of 6 or more. Another popular use of computers is to access overseas demand over the Internet and to place bids on-line. A large number of the small firms we interviewed reported having received orders over the net. However, they also noted that a key feature of such orders is that they are almost entirely price-driven. At the same time, given the degree to which marketing has been cited as a problem in the literature for small firms, this increased access to distant and export markets is significant.

Finally, a smaller subset of firms used new, information technologies in their production processes—such as CAD-CAM applications, computerized cutting machines, and especially software packages for designing styles and fabrics in the garment and knitwear sector. This is the area where potential growth and benefits are possible. See our previous discussions of how some small garment firms increased product variety by using customized (as well as standard) design software packages (See Tewari 2001, textiles study for details). The biggest hurdle in the wider use by small firms of specialized production and design software was the high cost of software. Perhaps this is an area where the government may be able to make a difference by extending its technology upgradation funds to cover important software needs of eligible small firms.

5. Linking up with large buyers

Linkages between small firms and larger buyers can be an important source of learning and growth for small firms. But will courting large firms by small necessarily lead to learning, and the mushrooming of demand for small firms in the area? From our analysis of firms in four sectors on the ground in Tamil Nadu, we found that the answer to these rhetorical questions is “not necessarily.” It depends on the sector, and on the organizational structure of the large customer firm, as well as the environment within which the smaller firms operate; it depends on the nature of the market segment served (by the customer), and it depends on the particulars of legislation in the country or province. For example, as in Tamil Nadu’s spinning sector (See Tewari 2001), legislation can lead to fierce competition between large firms and small, rather than collaboration. Or, as in the automotive sector in Tamil Nadu, the arrival of large firms in the auto-assembly sector may lead to a serious disruption of links between small local firms and the large assembler—at least initially—as the assemblers rely on either their
follow sources, or seek out reliable, large suppliers who are already national players in the host country. As the small industry secretary asked, rhetorically, “how many small firms in Tamil Nadu have got orders from Ford, Hyundai or Mitsubishi (or even from their major suppliers?)” In the initial years, virtually none. Similarly, the small firms association in the Auto components sector said that even though Tamil Nadu was an important supply base, Hyundai and Ford did not seek to meet them through associations or directly to get to know them, and find out more about how they could tap into the local supply base; or even to inform local firms about what the assemblers were looking for so that smaller suppliers could be educated about the changes they would need to make. The government played no part, in the context of its recruiting Ford and Hyundai to put them in touch with local suppliers or their associations.

Indeed, it would appear that even when large firms claim to be attracted by the presence of a good quality local supply base (as interviewees at Ford, Hyundai and Visteon all reported they were, 2001), they display no urgency in localizing supply quickly, or in trying to find out more about what exists. (It is possible that they do their scouting before hand, and select a small subset they want to work with). The first round of business seems to be conducted with familiar follow sources, or with non-local but already reputed larger suppliers in other parts of the country (e.g., Ford did a lot of early business with Maruti’s Delhi-based suppliers, as did Hyundai, and Mitsubishi). Small firms in Tamil Nadu complained that the assemblers are very reactive: small firms must do the reaching out and adapting. Yet they feel they have little bargaining power, unless they have strong pre-existing ties with large (domestic) first-tier suppliers, such as the TVS group or others.

One successful and very skilled auto-components producer pointed out that even when small firms approach the assemblers, or even their first tier suppliers, and want to make the required changes to be able to do business with them, large firms insist on their (small suppliers’) making vast amounts of investment first to increase capacity even before they are given any commitment of future orders. Small firms are caught in a bind—they need to borrow the capital to make the required level of investment, but banks are reluctant to given them large loans without any guarantees that they will indeed get orders from the large assemblers or their first tier suppliers. Assemblers and large buyers refuse to give this commitment in advance. This results in a vicious circle, where the circumstances are such that suppliers with already large capacity, or with financial reach are the ones who end up getting the orders.

From this account it is clear that both the small suppliers, and the larger buyers have good reason for acting as the do. Clearly, there is a role here for some inermediation, either by government or by a partnership of a quasi-government group and local industry associations committed to helping deepen the local supply base by working around the impasses described above. Indeed, that is where China is different from India. As one large follow source reported, “Indian firms are afraid to invest. Investment is never a problem in China.” The government, along with the regional councils help underwrite, or act as guarantors to the investments needed (Visteon interview, 2001).
Next we turn to the world of projects and programs, and take a closer look at some new thinking about how public sector, donor and private agencies (such as associations) can assist small firms upgrade themselves and compete effectively in a global environment.

PART II
New thinking about small-firm development programs: country experiences and themes from the literature

In this section and the next, we examine how recent changes in the thinking about small firm development have led to new ways of assisting small firms through new types of programs. Both approaches stem from the view that the problem with small firms is not their size, but their institutional isolation. These efforts then are attempts at organizational and spatial “collective action.” The first approach—of providing firms with non-financial business development services attempts to put firms and local institutions together in ways that will lead to a demand-driven response to the critical problem of marketing that small firms face.

The second approach of industrial clustering, which first gained currency in the late 1980s, draws upon lessons learned from the positive experience of dynamic small firm growth in advanced industrial economies in the 1980s. It is based on the idea that fostering linkages among firms in the same or related sectors, as well as among small firms and their large buyers helps improve their competitiveness and resilience. Drawing upon the idea of Marshallian external economies and positive spillovers of skill and joint action, industrial clustering is an approach that envisions innovation—not just static efficiency—as the source of growth among inter-linked small firms. In this view, the collective efficiency of network forms of production can overcome the deficiencies of scale economies that individual small firms suffer from.

A brief summary of lessons learned about financial assistance:

A hallmark of SME lending policy in many East Asian countries was that it was tied to performance standards. Give examples from Watanabe. In many industrial countries governments as well as trade associations have historically intervened in credit markets to assist SMEs, specifically by taking on the role of guarantors—they act as guarantors of loans that regular financial institutions extend to SMEs. In the US the SBA plays this role. Rather than directly extending subsidized credit to firms, this agency acts as a loan guarantor for qualifying small firms (see appendix 2). Trade associations have taken on similar roles in France, Spain and other European countries. These programs are designed in a variety of ways, but a common goal of these programs is to aid job creation by shoring small businesses’s liquidity, and doing so at the lowest cost per job created.

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7 A discussion of micro finance is outside the scope of this brief summary. For an excellent review article, see Graeme 1997.
Default rates vary from a low of 5% in Germany to about 40% in the UK (Riding and Haines 2001). In the Indian case the “official” default rate is said to be 35-40%, but in interviews we learned that the actual default rate is much higher, about 70%. Other efforts to support small firms in industrial economies include assistance with bidding, and preferential procurement from small firms by the government, under a special bidding process. However, studies have found that the only a small subset of the largest SMEs consistently benefit from these programs. The same group of firms tends to benefit repeatedly, e.g., in their ongoing ability to win government contracts.

In the Tamil Nadu case, we spoke to officials at SIDBI: the government is well aware of what the problems are in extending credit to small firms. They admit for example that small firms in dire need to liquidity need working capital much more than they need investment capital. Yet, SIDBI’s largest current program provides small firms with funds to purchase new equipment – the TUF. Officials realize that not only do firms need liquidity, but also they need money quickly “today” – given the liquidity crunch they face, and the delayed payments form large buyers that often set them back. Yet there are many governmental requirements—at least 25-30 “clearances” that are not rationalized in any practical way in a “single window” despite official rhetoric to the contrary. Moreover, there is wide variation in how long it takes for the SME to actually receive the loan—although the proclaimed average is 30, SIDBI says, it may take anywhere from 15 days to one year. Furthermore, the loans to SME entrepreneurs “usually come with training schemes attached.” This may be good or bad, but it adds to delays and makes the process cumbersome because the training is provided not by SIDBI, but by third parties. The default rate of small firms in is about 70-75%, while the success rate for new firms is 40-50% (Interview, SIDBI 2001).

I. Non-Financial Business Development Services (the BDS Approach)

In the mid-1990s many donor agencies engaged in supporting small firms in developing countries launched a new path of research. The consensus was that in the two decades since the 1970s and subsequently through the Grameen experiment, firms, NGOs, governments and donor agencies had learned a lot about micro finance and how to disburse credit successfully among small firms and micro enterprises. Many viable institutions, such as the Grameen Bank and others that it had inspired, were well entrenched, and doing a good job of filling the gap between the need and availability of credit to small firms. Much less understood was how to address two other problems that small firms faced that were not related directly to finance or access to credit—namely, (a) the unevenness of their internal managerial capacity among small firms, and (b) problems with marketing. Donor agencies called the effort to address these problems a search for ways to provide SMEs with non-financial “Business Development Services.” An early effort was a report produced for the Committee of Donor Agencies for Small Enterprise Development (Donors Committee) by Gibson et. al. in 1997. This was followed by extensive new research by agencies such as the World Bank, The IADB, UNIDO, SEEP and others. The recent results of this research were presented at an international conference sponsored in 2000 by the Committee of Donor Agencies in Vietnam. This
In contrast to the more usual focus on small business development programs in the area of *credit and finance*—e.g., microfinance, special lines of subsidized credit, and improved access to institutional finance (investment as well as working capital)—the focus of most programs that provide small firms with non-financial business services is *marketing, and market linkage*.

A recent study by McVay 2000, for example, examined three categories of intermediary institutions that worked with small firms under the BDS framework, and all of them were marketing institutions. (1) One type was a “marketing business” – a non-profit intermediary, which itself bought products produced by SMEs in the area that it served, and found channels to market the products outside the region. These intermediaries adopt varying operational styles (see examples below), ranging from working as membership organizations that potential suppliers had to join to avail of the group’s service, to procuring from a chosen subgroup of local producers (e.g., low income rural producers, or women producers in a particular spatial setting, to operating as sales hubs for cooperatives. Of the three organizational types discussed, marketing-businesses are arguably the most “exclusionary.” (2) The second type of organization was a more typical marketing service provider. These organizations broker sales by assisting small firms to reach the market, but do not buy any SME products themselves, or sell them. These intermediaries tend to be more inclusive than the marketing businesses, in that they offer assistance to any small firm in their area of operation. (3) The third type of marketing intermediary, operating at a level higher than the other institutions, focuses on developing regional marketing infrastructure that can have long-term impact on the marketing ability of small local firms. For example, this type of intermediary provides firms with access to large fairs and external exhibitions, it provides consulting services and information about new markets.

Summarized below are excerpted descriptions and examples from McVay’s study (2000): She looked at several examples of the three types of marketing institutions described above, and identified patterns that ran across them, highlighting those that accounted for their success.

**(1) NGOs as intermediary buyers**: Several of the new intermediaries who operate “marketing programs” themselves purchase products from local SMEs and “sell” them in the wider market at a small mark-up. In addition to providing a more-or-less guaranteed source of sales to its clients, these organizations offer producers feedback on product quality and market demand, and provide a variety of services: specifically, market research, product development, training, input supply, and access to technology.

What do these types of “buying” organizations look like? The six examples that follow show how the structure of an intermediary buyer
institution varies widely from serving a narrow membership base, to serving a wider, non-member population.  

(a) INDEPCO, an urban garment producers' association in Haiti subcontracts government uniform production to its members. The members are mostly low-income, home-based tailors. INDEPCO provides inputs (such as raw materials, and training) to its members. INDEPCO itself is supported by technical assistance from larger international NGOS such as Action For Enterprise, an US-based non-profit organization with support from USAID.

(b) PROARTE, is a for-profit marketing and craft exporting company in Nicaragua? It was founded by the Mennonite Economic Development Agency (MEDA). PROARTE focuses primarily on marketing traditional Nicaraguan hammocks and pottery made by low-income rural producers.  

(c) PCS is a nonprofit marketing organization in Colombia, which markets large volumes of daily use items domestically—such as doormats and brooms—made by urban, low-income producers. PCS provides services at almost every stage of the market and production cycles for at least four product sectors and has benefited from international investment from the Inter-American Development Bank.

(d) PROEXSAL is a cooperative in El Salvador that markets organic vegetables to specialty grocery stores domestically. It works in partnership with the Cooperative League of the USA (CLUSA), which supports production while PROEXSAL focuses on marketing. Services include providing refrigerated storage and transportation, as well as training buyers on how to handle organic produce. The vegetable producers are rural, smallholder farmers.  

(e) ZIWA is a marketing enterprise that grew out of a non-governmental organization (NGO) in Western Kenya. It provides product development and training primarily for urban, informal metalworkers. ZIWA works in partnership with an NGO that provides significant product development and training support and in turn receives its support primarily from Danish Financial Development Organization.

(2) Marketing Service Providers are organizations that offer services that help SMEs reach markets, but they do not sell products for them. The wide range of services these programs provide include information provision, training, and linking producers to buyers. Some examples include:  

(a) AgReform. This CARE Egypt program helps small farmers locate the information they need to increase productivity and identify market opportunities. AgReform helps smallholders visit experts, suppliers, and potential buyers so that they can develop long-term relationships in the marketplace and eventually access the information on their own.  

(b) AMKA, an urban export development program in Tanzania serves a wide range of enterprise types and sizes.  

(c) FIT is an action research effort by the International Labor Organization (ILO) that develops and tests new services for supporting or replicating private-sector
initiatives so that when disseminated more widely, these initiatives can become financially sustainable. Specific services include enterprise tours, user-led innovations, and advertising papers that serve informal sector producers in both rural and urban areas. FIT is evolving into a market-infrastructure developer. (d) MicroNet is a new-style, market-savvy project in Jamaica that works with private-sector investors to initiate a BDS company to serve micro enterprises in any sector in urban areas and towns. 

(e) The United National Industrial Development Organization subcontracting partnerships and the Manikaland Subcontracting Exchange (MSE) in Zimbabwe, link large-scale manufacturers with small-scale suppliers. UNIDO operates globally and MSE operates in Manikaland, a rural area of Zimbabwe where the timber industry dominates. In other efforts, UNIDO also facilitates the development of groups of entrepreneurs in the same product sector and supports joint projects that help get products to market. The programs operate in several Latin-American countries and serve urban SMEs.

3. Market Infrastructure Developers. This type of organization helps develop market institutions aimed at helping SMEs access markets on a permanent basis. Some successful examples include: (a) Gram Shree Mela (GSM) in India organizes occasional market expositions, and features handmade rural products sold by NGOs and producer groups that receive government grants to assist the poor in income-generation activities. The Gram Shree Mela markets, which take place in urban centers throughout India, also offer workshops on product development, pricing, and marketing. NGOs supported by the Indian government are the primary participants in the market. They work with poor rural craftspeople to produce and market their products. Although the GSM program focuses narrowly on providing market festivals, its function is linked to the broader infrastructure of NGOs that assist rural producers. The Marketing Action Research Team (MART), an Indian consulting firm initially provided technical assistance in the design and implementation of this government-implemented program. 

(b) SADP/NASFAM. The Smallholder Agribusiness Development Project (SADP) and the National Smallholder Farmers' Association of Malawi (NASFAM), together provide organizational development, technical assistance, advocacy, and information services to smallholder farmers through a network of 17 associations and 2,500 farmers' clubs that SADP helped establish. The project started working in the tobacco sector and is now helping smallholder farmers diversify to chilies, cotton, and other cash crops.

McVay (2000) found that the primary lessons that emerged from the analysis of these three types of marketing programs include the following: (a) Programs focusing on developing market infrastructure reach larger
scale. (b) Larger programs reach scale, but seem to have less intense impact on clients. (c) Cost-effectiveness is not related to scale or program model. (d) Marketing businesses reach sustainability more easily, but the other two types of organizations are also learning how to become financially stable. (f) Smaller programs reach sustainability more easily.

(ii) New non-traditional alliances between small firm associations and international NGOS in Tamil Nadu: TANSTIA-FNF

In the Tamil Nadu case, the most striking example of small business “intermediaries” that we found was TANSTIA-FNF, a novel alliance between Tamil Nadu’s largest federation of small-industry associations, TANSTIA, and a German NGO, the Freidrich Naumann Stiftung, which is the development arm of the Freidrich Ebert Foundation (affiliated with a libertarian political party of Germany). The partnership (TANSTIA-FNF) was established in 1995, and is registered as a non-profit organization whose goal is to provide small firms with assistance to meet the new global challenges of today’s business environment. Though established at a time when the growing debate on labor standards and third party certification of small suppliers in developing countries was in sharp focus, the alliance did not grow out of concern over that debate about standards and certification. Having formed, however, the first order of business of TANSTIA-FNF was to provide consultancy services to local firms to help them acquire ISO 9000 quality certification. Firms who go through TANSTIA-FNF pay 20% less than what private consultants charge for helping firms go through the ISO process. In the past five years TANSTIA-FNF has helped over a dozen firms acquire ISO certification; it is currently assisting three more.

TANSTIA-FNF is a new breed of partnership—between an international NGO and a small firm association. But on the face of it—apart from the ISO certification consultancy—it seems to provide pretty much what any other donor NGO might provide—-a variety of training programs, consulting and advisory services. What makes it different is that it has brought TANSTIA, the small firm association, to the table with the very new partners—such as its development institutions in Germany and EU; and by infusing new knowledge and a new working style among TANSTIA, it has transformed and modernized the agency. As a result of this TANSTIA-FNF itself became an ISO 9000 organization in 1999. By drawing on lessons from the European market—just the market that many of TANSTIA’s member firms want to access, TANSTIA-FNF is diffusing new knowledge in the community it serves. For example, it offers courses to help small firms “keep pace with the changing methods, operations, and technologies,” including modern management techniques such as “Kaizen, total quality management, computers for small scale industries,” and advice about accessing “new export opportunities” as well as tapping into “emergent investment opportunities” in Tamil Nadu’s new growth industries—automobiles and information technology—both industries have recently been sites of substantial Foreign Direct Investment.
One of TANSTIA-FNF’s most popular initiatives is the web-based marketing and information generation service it has created in the form of a new web-portal. For a fee, members can get access to export and demand information from various overseas markets, orders and bids can be placed online; member profiles online introduce outside buyers to member products, and members can access information about custom rules, duties, and trade policies in different countries.

How successful has this been as a marketing device? It may be too soon to tell, but TANSTIA-FNF members tell many stories of linking small firms, even remote, rural firms to overseas buyers. In one case, a matchbox maker came to TNASTIA-FNF’s Chennai office last year to inquire about possible marketing opportunities. The consultant he met placed his product profile on the web, and asked him to check back after a few days. However, as it turned, TANSTIA-FNF got an inquiry from a Swiss buyer that very afternoon who expressed in the Matchbox maker’s profile, and ended up placing orders for customized, decorative match-boxes. TANSTIA-FNF conveyed the information to the matchbox maker and helped him obtain a formal order from the Swiss buyer, open of credit, and eventually to dispatch the goods. The Matchbox maker still supplies the Swiss buyer, and has received several additional orders from overseas buyers who saw his product.

Although it is too early to say how and in what ways an alliance like TANSTIA-FNF is different from other organizations, it has caught the attention of a lot of local firms and government officials, especially by combining traditional marketing services with new roles and functions, and by putting the largest association of small firms in Tamil Nadu in touch with a wider circle of influence: of institutions in the markets that TANSTIA’s members want to access.

(iii) Clustering, Business linkages and Production Networks

Network forms of production have gained considerable currency over the past to decades as an important instrument for strengthening SME performance by creating powerful business linkages between firms and their productive environment. The idea of promoting SME growth by creating business linkages is not new. There is a long history of at least four other kinds of instruments that practitioners and policy makers have used to promote business linkages among small firms: (i) subcontracting, (ii) franchising, (iii) brokerage, (iv) procurement. In contrast to these familiar ways of linking small firms with large firms, there has been an upsurge of interest in a powerful new approach to understanding small firm competitiveness, and inter-firm relations since the mid-1980s. This approach focuses on small firms not as individual firms, but as part of production networks, or spatially concentrated clusters or industrial districts. We briefly discuss each of these approaches below, with an eye to understanding what is new, and important and different about the clustering approach that has gained currency since the 1990s in India and other developing countries. In what way is the network approach different from other older strategies of forming production linkages, and what does it mean for small firm policy.
We briefly discuss each of these instruments below, and map out the implications of each approach for the design and implementation of SME support strategies. Following that, we compare these initiatives with the network approach and end with an assessment of the implications for SME policies and strategies. (This section draws on Mead 1994, and the definition of franchising, and brokerage in particular, derives from Mead 1994 and Goldmark 1996).

(i) **Franchising:**

This is an instrument for fostering business linkages where one enterprise sells to another firm the right to produce or sell a particular commodity/product for which the franchiser holds the trademark. Because the (often) small firm that is the franchisee must sell under the original producer's trademark, it must follow the standards and procedures laid down by the franchiser.

Although this is a circumscribed relationship, and relatively static in terms of the potential evolution of the technical alliance between the franchiser (usually a large firm with brand name recognition in a standardized product line) and (usually small) franchisee, it has important merits. This instrument has been widely used in industrial economies and is a simple and effective way for a small producer to start a business (Mead 1994). Although circumscribed, this instrument provides at least four kinds of learning opportunities for small franchisees.

(i) In providing the novice firm a ready product and knowledge of its production technology, it allows the small, novice producer to become familiar with the market and with the task of production. (ii) While the absence of any guaranteed purchase of the franchised good by the franchiser may leave the small franchisee vulnerable to the fluctuations of sales, it also "forces" the small firm to learn about marketing and how to cope with the responsibility and demands of this key business activity. (iii) A third form of learning that can occur under franchising is driven by the fact that the franchisee has to meet a prescribed quality standard. The continuation of the franchising agreement, as well as eventual sales depend on the franchisee meeting these standards. This learning would benefit the franchisee most if over time, its increased confidence in meeting performance standards, and mastery over simpler production processes allows it to move out of/beyond the static franchising relationship and into a position of greater autonomy and challenge.

(iv) As some observers have pointed out, franchising may also benefit the small franchisee firm in terms of access to credit. Evidence from low-income, first-time borrowers in the U.S. shows that being tied to an established product that has brand name recognition makes it more likely that the franchisee will get access to formal sector credit (South Shore Bank example, cited in Mead 1994:7).
The lesson emerging from this discussion, then, is that franchising is a simple, but circumscribed instrument for fostering business linkages. Its traits make it particularly relevant to small firms with relatively technologies, or capital constrained start-ups.

(ii) **Brokerage:**

This instrument is akin to the old role that the "factor" played in identifying regional or national demand and brokering linkages between these sources of demand and small manufacturers who produced the goods according to the specifications provided by the Factor. Factors commonly procured inputs in bulk and distributed them out to the small production units. As production processes have increased in complexity, intermediaries like the Factor are now often replaced by specialized agencies, or firms, which are themselves small, but have a key asset--knowledge of a particular (overseas) market, design skills, or extensive access to distribution, marketing and procurement channels.

Brokerage is usually a sign of growth, and increased productive complexity of an industrial regime. It is commonly found in dynamic industrial districts or innovative manufacturing networks (see Schmitz's description of the Sinos Valley shoe industry in Brazil, 1995, Mead 1994, and the World Bank's analysis of Korea's textile, auto-parts, electronics industries, 1994). As an instrument therefore, it is relevant to the extent that business services provided by brokers, under conditions described above, have potentially large spillover effects and are worth supporting.

(iii) **Subcontracting:**

Subcontracting is a very familiar and widely documented form of business linkage (see for example Harrison and Storper 1991, Nishiguchi 1992, Holmes 1986, Mead 1994). We will not repeat the debates about subcontracting here, but simply raise a few issues that illustrate the implications of subcontracting as an instrument of SME development. This term is most commonly used to refer to an arrangement where large customer firms contract out a portion of their work to smaller suppliers. In reality however, subcontracting refers to a complex variety of vertical as well as horizontal linkages where small firms subcontract work to other small firms, medium sized firms, or to micro enterprises down the production chain.

(i) Subcontracting can be a powerful channel of learning and an especially important source of technical capability for small suppliers. But its performance as a source of learning depends strongly on how the subcontracting relationships are structured. For example, the Japanese case is perhaps the most vivid and evolved

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8 An example of a different kind of brokerage role is that played by the "specialist" e.g., computer programmers in the textile industry who have knowledge of fabric design (or new markets) and mastery over specialized CAD-based software, and who produce a variety of patterns which merchant exporters get local textile firms to produce for indirect exports.
An illustration of conditions under which subcontracting linkages can benefit not only small suppliers and their larger customer firms, but also the industrial economy as a whole. In most sectors of the Japanese economy, supplier relationships tend to be stable and long term, where the large customer firms invest--often heavily--in converting their small suppliers into world-class manufacturers in their own right. While this is most true for first-tier or preferred suppliers who often participate with their customer firms in designing entire sub-assemblies of complex technology intensive goods such as automobiles, supplier relations in general tend to be relatively stable in Japan.

By contrast, several studies have pointed out the relatively weak effects of subcontracting (e.g., in its auto-parts sector) as a source of technical learning for small firms in Korea as compared to Japan. (World Bank 1994, Porter 1990, Kang and Park 1990). Other studies document how some small suppliers are exploited by large multinational buyers seeking a price advantage by farming out work to unregulated SMEs who have low factor costs (e.g., Mexican maquiladoras, informal enterprises in several South Asian and African countries)

Thus, a common and legitimate worry among policy makers is the regressiveness of some subcontracting systems for small suppliers. One clear lesson learnt from project experience in this regard is that government policies or efforts to promote small and medium enterprises that involve shielding or protecting SMEs from competition via reservation policies (as in India) or via preferential procurement (as in Nicaragua under the Sandinista regime mandated the procurement of selected goods by the state from small and micro enterprises without enforcing any quality standards) have simply not worked. These polices have only deepened the disarticulation between small firms and large industry or firms of other sizes and severed a crucial channel through which learning and technical growth can occur.

By contrast, an approach that has worked well is the legislation of policy, which mandates timely payment of subcontractors and small suppliers by their large buyers. In the Japanese case, for example, there is a legal and binding stricture that requires customer firms to pay their suppliers within a maximum of fifteen days from the time of delivery. These policies that ensure timely payments are far more effective--if enforced--than polices that either limit the relationship between large and small firms, or heavily legislate price floors for suppliers

An illustration of the ineffectiveness of mandating prices comes from the Indian experience with subcontracting exchanges. In the 1960s, the central government introduced a number of subcontracting exchanges in India, which attempted to broker the linkage between large public and private customers and small suppliers in order to boost the sales of small producers. In order to protect the small suppliers from bidding wars that pulled prices down to exploitative levels, the government mandated a floor to what large customers paid their suppliers. If the buyer and supplier wanted to go through the Exchange, they could not charge rates below this floor--a noble objective.
Despite these guarantees and the price stability offered by subcontracting exchanges, a 1993 survey found that barely 17% of the small firms in the sample chose to go through the subcontracting exchanges to find buyers. A bulk of the suppliers--over 80%--found their primary buyers on their own--either through personal contacts, advertisements, or both. A key reason these small firms gave for bypassing the subcontracting exchanges was that price-floors were not their "basic agenda;" far more important to them were regular orders, and timely payments. Another goal was access to technology. A standardized pricing policy enforced by the government, these suppliers found, locked them into a static position with their buyers, which left them no room to negotiate or "custom-make" their relationship over time. For example, they were willing to take lower prices from their buyers today in return for better access to new technologies and production know-how later on. Over time, this would enable them to negotiate a better position for themselves, or even get out of the subcontracting relationship altogether to establish their own independent set-up. As a result, most suppliers--just those that the subcontracting exchange wanted to protect--preferred to enter into subcontracting relations outside the rules of the Exchange (Tewari 1994).

It is important to add here that the small suppliers discussed above were relatively more sophisticated and capitalized and more experienced than start-ups or micro enterprises typically are. While for them a price floor was constraining, such a floor, is still an important protection for smaller, more vulnerable firms. This example also does not mean that subcontracting exchanges are a poor mechanism for creating linkages between buyers and supplier firms, rather it suggests that the way a subcontracting exchange is organized/designed (with respect to the structure of the firms it seeks to serve) will affect its effectiveness. Relatively successful recent examples of subcontracting exchanges include UNIDO's regional network of subcontracting exchanges across fourteen Latin American countries that appears to be performing fairly effectively.

(iv) **Clusters and collaborative production networks**

We have examined four sets of instruments that have long been used to foster business linkages among firms. Despite some common features, this set of instruments differs in several ways from production networks that have been the subject of much recent debate. The key distinction is that while each of the four instruments listed above refer to a relatively narrow contractual arrangement between a limited set of firms (most often two), network production refers to a much broader system of organizing production, and of learning. It involves linkages between a variety of actors--firms of various sizes, specialized service providers, workers, local institutions such as business associations, training institutions, R&D networks, and agencies of the state--that thoroughly embed a firm within its productive environment. In several cases collaborative manufacturing networks may subsume other instruments of individual linkage, such as subcontracting or procurement.
Focusing on groups of firms vs. taking the single firm as the unit of analysis:

The significance of these complex and dynamic institutional linkages of network production is best seen in relation to the view in the literature that the problem with small firms is not their size but their institutional "isolation." That is, SMEs acting alone face tremendous challenges in gaining access to key resources: capital, technical knowledge, skills, marketing information and political "voice." This isolation is further reinforced by the tendency among researchers and practitioners of taking the single firm as the unit of SME analysis--both in thinking about business development policy, and designing service delivery mechanisms, as well as assessing their performance and impact.

By contrast, recent research in industrialized and industrializing countries on groups or clusters of firms located within geographically-based, specialized, and/or product-centered industrial networks shows that when groups of firms work together--and when SME assistance programs congruently target such groups, rather than individual firms--small firms do better at getting past these bottlenecks. The "collective efficiencies" deriving from strong inter-firm linkages that embed a firm in its environment encourage SME competitiveness and help mitigate the problems of isolation. Thus, an important distinction between linkage instruments such as franchising, brokerage, subcontracting on the one hand and production networks on the other is that while the former foster narrow linkages between individual firms, the complex and dynamic (i.e., changing over time) linkages in the latter case embed a firm in its larger environment and focus attention not on the individual firm, but the production network, the local economy and even the region. This allows policy and program attention to be focused not just on firms, but precisely on those connections between local firms and other institutions that help SMEs defray costs, spread or share risks, and cope with uncertainty in product and input markets.

Sector or product-specific vs. generic assistance

Typically, initiatives for assisting small and medium firms tend to be generic, rather than sector or product-specific, or problem driven (Tendler 1994). For example, they provide generic services--such as credit, training, marketing assistance--to all firms below a certain size or capacity, irrespective of the particular sector or region of which they are a part. There are several good reasons for doing so. For example, there are high costs involved in customizing assistance to suit the needs of particular firms, regions, or sectors. In addition, there is often a political justification for the "universalization" of service provision on grounds of equity--e.g. of not appearing to exclude some eligible beneficiaries because they do not belong to the sub-sector being targeted. Another reason for tending towards generic SME assistance across firms and sectors is the consideration of scale--of trying to reach as many firms as possible per dollar spent.

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9 In some variants like the UNIDO subcontracting network in Latin America, this may be different--the linkages there are more of a network nature.
The problem with such supply-driven approaches however, as is now widely acknowledged, is that they are not sufficiently rooted in a region's economy and hence often fail to address the particular problems in a region, sector, or firm that gave rise to the need for assistance in the first place.

As recent research on networks, and sub-sector analysis (Boomgard 1991) is showing, the challenge is to identify problem-driven and sector specific interventions that are not costly or exclusionary (Tendler 1994). For example, these could include interventions (technical assistance or training) where the costs of working this way has been reduced, or where there are strong spillover effects on other firms in the regional economy (Tendler 1994). This is where focusing on product-centered industrial networks with sector specific, and customized assistance provided by local public and private agencies may be an easier vehicle to providing demand-based, product or sector-specific assistance to SMEs.

However, this kind of decentralization of service provision, although desirable, is far from a panacea. Numerous studies have pointed out that it is often the local elite, who hold key, and often coercive positions in the local hierarchy that benefit disproportionally from efforts to decentralize development assistance. In this decentralized model of manufacturing networks, then, how does one address the problems of rent seeking by local elites? Part of the solution--and challenge--as pointed out by a World Bank official involved with a cluster based SME assistance program, is greater accountability and transparency. Transparency, openness of negotiations, ongoing discussions among the various actors involved, and public scrutiny might make it easier to deal with the problems of supervision and accountability associated with customized ways of delivering technical assistance and other services.

At this point local officials who are already burdened with providing existing services to small firms, and struggling to shore up the viability of producers threatened by rising import competition after liberalization, might ask: Are clusters relevant for their region or sector? Is cluster-development really the task of public policy? Can government help initiate collective action among small firms who have for years undercut each other? Who will undertake the time-consuming task of bringing together small producers?

In response to these questions one can point to several new and excellent studies that draw on cases of successful public sector efforts to foster local clusters in countries as diverse as Brazil (See Tendler and Amorim 1996, Dohnert 1999, Schmitz 1995, 2000), Chile (Perez-Aleman 2000), Mexico (Lowe 2001) and Ireland (Sabel 1996) to identify the processes and conditions under which small firm clusters can be fostered locally. However, we will focus on one case that comes out of the Indian context to illustrate one effort where donor agencies and policy makers have worked to strengthen existing clusters in India. The case involves UNIDO’s efforts since 1996 to work with the Development Commissioner, SSI (India), and the Small Industries Development Bank of India (SIDBI) to jointly support Indian clusters. As discussed below, UNIDO first identified existing clusters in India—which it listed as “350 small firm based urban
clusters, and 2000 rural and artisanal clusters across India”, which together contribute nearly 60% of India’s manufactured exports (http://www.laghu-udyog.com/clusters/Prog.pdf). Included in this list are 26 rural clusters are located in Tamil Nadu, ranging from the production of woven silks, metal ware, to wood carving, toys, matches, and other goods (http://www.laghu-udyog.com/clusters/rclus.htm), and the most prominent urban clusters include Tirupur’s knitwear cluster, the Palar valley’s leather cluster, Chennai’s leather, garments and auto-components clusters. Not all the clusters listed by UNIDO were found to be globally competitive, and so UNIDO, with the assistance of the Government of India, picked four pilot clusters—textile printing in Jaipur, food processing in Pune, knitwear in Ludhiana, and cotton knitwear in Tirupur—to build in each region an institutional infrastructure to “help small firms in the cluster support themselves.” Along the way, the Abid Hussain Committee’s Report on Small Enterprises endorsed the idea of cluster development as “one of the main pillars” of the Indian government’s Small Enterprise Development Policy (1997). We examine below how the UNIDO cluster program in India came about, and what exactly it did institutionally, to develop working partnerships with local government institutions and small firm associations in sites where it worked: Tamil Nadu, Rajasthan, Punjab, and Maharashtra.

**Building capacity in intermediary institutions to deal with the problem of project sustainability and cluster development**

After years of supporting and funding the establishment of technical training, technology transfer and R&D development centers across developing countries as its key approach to strengthening small firms, UNIDO’s initial rationale for turning to a more decentralized and "customized" approach to small firm development in the mid-1990s had as much to do with the issue of project sustainability, as with the rise of a new way of thinking about small firms and clusters. This rationale, and the learning behind it, came out of donor and government agencies’ own experience with grappling with the problem of project sustainability. A common frustration of agencies promoting enterprise reform amongst SMEs or providing training or other micro level services has been the problem of sustaining the momentum of institutional change after the projects formally end. As one UNIDO staff member working on the agency's experimental project on the restructuring and modernizing SME clusters noted, they found in many of their programs that program beneficiaries often lost interest in the promoted activities, disbanded, or discontinued the new practices after the (donor or government aided) projects ended. People who had been able to work well together during the course of the project went back to older ways of doing things after the project ended; cooperation between private and government actors that seemed promising during project implementation waned after UNIDO ended its involvement. To get the groups back to working together again, UNIDO often had to launch a new project. It was unclear how to sustain these seemingly successful projects after the donor (or government agency) withdrew.

The pattern that emerged from a review of their experience was that this tended to happen most frequently in projects that delivered generic as opposed to focused, and/or

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10 This account is drawn from a study conducted by Tewari (1996).
sector or product-specific services. Another pattern in the cases that did not tend to sustain themselves (especially in terms of the intended institutional change) was a lack of local capacity in (or involvement of) collective institutions such as associations, or specialized service providing agencies, and membership organizations who could jointly take over UNIDO's monitoring role, or integrate the learning generated by the project into local routines and customs surrounding production.

In response to these problems, UNIDO has attempted a new, cluster-based approach in its ongoing SME restructuring and modernization programs in India and Tunisia. Rather than come in with a package of services (such as training or R&D centers), it is building its new national SME programs around creating local networks and building capacity within them in partnership with local institutions—public and private—so that these local groups can themselves identify the specific problems they need addressed, develop their own solutions with the assistance of counterpart agencies (at the local and cross-regional level), approach relevant agencies (including small firms themselves) for funding assistance, and monitor their implementation.

**Designing a Process Rather than Product-Centered SME Program**

UNIDO's program on the Restructuring and Modernization of SME Clusters in India, initiated in 1996, illustrates some of the steps—and challenges—an agency (government or donor) is likely to face in designing an SME initiative built around strengthening local networks. Three key lessons that emerged from this ongoing process are summarized below.

(1) Rather than going in with a package of programs based on quick SME surveys or existing sector studies, UNIDO based its restructuring Program on an initial (and eventually, ongoing) diagnosis of the particular problems facing four key industrial sectors dominated by small and medium firms, and concentrated geographically in four parts of India: diesel engines in Punjab, Food processing in Pune, Textiles and printing in Jaipur, and cotton knitwear and hosiery in Tirupur and Ludhiana.

The process of conducting the detailed diagnostic study itself served an important institutional purpose. For example, (i) rather than relying on outside consultants, or treating the diagnostic stage as a stand-alone part of the process, the diagnostic studies were conducted by a team of local researchers who would form an ongoing core of UNIDO's restructuring initiative. (ii) Rather than focusing narrowly on building statistical profiles of each sector through cross-sectional enterprise surveys, the diagnostic reports were detailed field studies aimed at mapping out the structure of production in each cluster, identifying the key relationships between firms and other local actors, and understanding main turning points in the organizational history and performance of each cluster. In this way, the diagnostic studies tried to understand how existing business actually operated in each of the clusters. The diagnostic phase thus, was more than an information gathering stage—it was itself a process of building local capacity by "training" local groups to ask new questions that would elicit the process-oriented information needed to design problem-driven interventions rooted in the local economy.
(2) In each of the four clusters, local institutions that were likely to collaborate later in the implementation stage were associated with the program from the beginning to ensure their full participation and contribution. These included local producers associations, members of the District Industries Centers, local branches of national level associations and chambers of commerce, local branches of banks and institutions such as Small Industries Development Bank, and National Small Industries Corporation, providers of specialized services (such as the food research center in Pune), and other actors including local academics. The team conducting the diagnostic studies not only interviewed these actors, but "checked back" with them after the initial diagnosis was complete—to present their findings and record their responses and recommendations.

(3) A final and key part of the process of building a cluster-based program was building a work plan for actual implementation. This was done through a "national workshop" involving all the key actors who were part of the diagnostic and would be part of the future implementation stage. This included bringing together representatives of firms from each of the four clusters, representatives of the institutions listed in (2) above, relevant government agencies at the national level, and potential collaborators such as other donor agencies, and interested bi-lateral donors. The workshop was not only a forum for discussing the findings and conclusions of the diagnostic studies. Most crucially, it became a forum where the actual participants—representatives of firms in each cluster, government officials and academics—together developed potential "local" work plans for each cluster through jointly identifying the key bottlenecks and opportunities in each cluster, and working backwards to figure out what kinds of interventions were needed in each case. The results were an encouraging first step, and the problems (as well as possibilities) of having local firms sit at the same table with government officials to discuss common action plans, was itself immensely instructive. Several donors expressed interest in participating in parts of the program, and UNIDO is now implementing the second stage of its cluster Program by building working relationships between small garment exporters from Tirupur, one of the chosen clusters, and cotton knitwear firms in Italy with funding from UNDP and the Italian government.

What is some of the evidence of success that has come out of this effort? According to a recent account, UNIDO’s India program argues that it achieved substantial gains from its initial efforts. It helped establish several institutions in each of the four pilot clusters, including export consortia, joint service centers, small firm support institutions and associations that help connect local firms with new markets and large firms, and the organization of and support of overseas tours by small firms to Italy and other countries where successful industrial clusters initially caught the attention of scholars and policy makers. UNIDO also organized two national seminars and 6 state-government level seminars to initiate discussions about cluster development with 600 policy makers, development intermediaries (local and regional institutions), local academics, and small firm associations (http://www.laghu-udyog.com/clusters/Prog.pdf). Finally, UNIDO points to the adoption of its cluster development initiative into policy by Commissioner of Small Industries recent task force led by Dr. Abid Hussain, which, as noted above, supports the disbursal of public sector funding and assistance to small firms.
not as generic, individual small firms, but according to the specific demands of the sector they are in, and based on encouraging associational activity and institutions to take local leadership in defining the kind of assistance they need.

**Specificity of assistance and other aspects of sustainability**

How does the adoption by policy maker of this approach to group-based or cluster based assistance to small firms affect the way in which the government or other donors extend financial assistance to small firms? A key aspect of project sustainability of course is its ability to be financially viable. An important issue in this regard relates to cost-recovery by service delivery institutions, and the extent to which success in cost recovery is related to the manner in which the service is provided as well as the nature of the service itself. A report on Business Development Services (BDS) based on the experience of the InterAmerican Development Bank, frames this issue succinctly: is it the more specialized, focused interventions, or the integrated interventions that have greater success in recovering costs (Goldmark 1996:3)? The same report finds that evidence from projects suggests that it is the narrowly focused services that are more likely to succeed in recovering some costs, while more integrated approaches are more difficult to charge for. Examples of the former include network programs as well as concrete business activities such as wholesale depots. Organized through local networks.

For example, service providers in Save the Children's Network program in the Philippines, and Corposol's wholesale depot in Colombia, both succeeded in recovering some or all of their operating costs by charging for the services they provided. They did so by charging for the inputs they supplied to entrepreneurs, but charging a lower rate than what the entrepreneur would have paid to the middleman in the absence of the projects. The entrepreneurs perceived the relatively lower input price as a "tangible benefit" for which they were willing to pay. The service providers used part of this revenue to sustain their operations.

Similarly, in a highly successful program implemented by UNIDO and the Romanian government that helped create 10 provincial business assistance centers in ten Romanian Judete, each of the Judete centers became fully self-sustaining financially within months of their creation as a result of charging fees for the highly focused and specific services they provided. According to a survey of beneficiaries conducted during an external evaluation, 93% of the 71 firms interviewed found the Centers' services "useful or very useful," 96% had had repeat contacts with the centers and indicated that repeat contacts in future would be very useful to them, and 94% reported willingness to pay for the specific services received (de la Rive Box and Marchich 1995).

In contrast to these focused efforts, Goldmark (1996) found that broader-based traditional Business development programs such as training courses or referral centers tended to recover a much smaller proportion of their costs. "In broad-based interventions, it is difficult to measure the benefits to the entrepreneur, and therefore more difficult to either charge the entrepreneur a fee or direct some of those benefits towards the sustainability of the program" (Goldmark 1996:3). Developing strong industry or sector specific associations or networks which are in a position to both
identify local needs more precisely, and develop customized solutions and specific ways of delivering them, as instruments to deliver business development services, is likely to prove financially self-sustainable compared to external assistance programs that go in with a comprehensive package of standard services.

**Conclusions:**

In sum, then, there are several similarities, but also key differences between older, more traditional forms of business linkages, and the multifarious linkages evident in collaborative production networks. Crucially, there are differences of "scope" e.g., an emphasis in the latter on skill-based innovation, sharing of risks and costs, "negotiated" trust between firms and other local actors, and a capital-conserving production process that does not rely on sweating workers to gain a competitive edge. These may seem ideal-typical features, but several successful production networks in industrializing countries seem to display variants of them. The central difference in thinking about networks as an instrument of delivering business development services to SMEs, however, involves a shift towards perceiving SME growth as an integral part of regional industrial growth and competitiveness, rather than a separate or additional task.

Clearly there are no "recipes" for intervening this way, but several lessons about how to design interventions along these lines are beginning to accumulate as development agencies such as UNIDO, the World Bank, InterAmerican Development Bank experiment with this approach. These lessons include: (i) paying attention to the importance of specific as opposed to generic assistance; (ii) being attentive to the importance of "coordinated" decentralization--i.e. one where local networks expose themselves to outside standards, and learn through disciplined comparisons with the experience of others--as opposed to adopting decentralization as an article of faith; (iii) paying attention to the importance of sequences, and the changing needs of local firms over their lifecycle--e.g., at an early stage of industrial complexity public technical support systems may play a far more important role than later on as smaller firms become technically sophisticated themselves. At that point private technical support through linkages with other firms, or outside buyers, or equipment suppliers may become more relevant. And finally, (iv) paying attention to positive feedback loops and learning effects, and how they occur--e.g., the key linkage between skills and nature of demand, procurement programs that "force" small firms to adapt existing products and/or modify existing processes, or learn through reverse engineering.
References


Goldmark, Lara. 1996.


### Table 1

Value and share of exports of the top ten developing country exporters of manufactured Goods: 1985-1997

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<thead>
<tr>
<th></th>
<th>Value US$ million</th>
<th>Share of World Exports (%)</th>
<th>Share of Developing Country Exports (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>9,316</td>
<td>155,953</td>
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</tr>
<tr>
<td>Rep. Of Korea</td>
<td>27,643</td>
<td>118,255</td>
<td>2</td>
</tr>
<tr>
<td>Taiwan Province</td>
<td>27,570</td>
<td>113,460</td>
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<tr>
<td>Singapore</td>
<td>11,651</td>
<td>104,731</td>
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<tr>
<td>Mexico</td>
<td>na</td>
<td>88,824</td>
<td>na</td>
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<tr>
<td>Malaysia</td>
<td>4,256</td>
<td>60,216</td>
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<tr>
<td>Thailand</td>
<td>2,689</td>
<td>41,113</td>
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<tr>
<td>Brazil</td>
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<td>28,033</td>
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<tr>
<td>India</td>
<td>5,193</td>
<td>25,703</td>
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<tr>
<td>Hong Kong</td>
<td>15,790</td>
<td>25,494</td>
<td>1</td>
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</tbody>
</table>

Share of Total 8  20  66  72

Source: UNIDO 2001:10