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**Competition and Response in Small Firm Clusters:
Two Cases from Western India**

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Abstract

The recent resurgence of interest in the potential of small firms in promoting employment and regional economic regeneration has often been attributed to a certain form of industrial organisation, known as clustering. Industrial clusters galore in India, but due to their great variety much remains to be appreciated about their functional dynamics. This paper addresses the different firm level strategies adopted to face up to the pressures of competition by two industrial clusters in the highly industrialised state of Gujarat. The overwhelming presence of 'informality' in the production sphere, lack of collective vigilance both from the local state and the industry body and surplus labour have contributed to price competition, unfair business practices and pathetic working conditions.

Heightened demand-led business dynamism *per se* does not ensure a healthy industrial environment, even when firms are clustered. Whereas aiming for external high-end market might act as impetus to strive for better quality of the product, still, neglect of the labour question can perpetuate the so-called 'low-road' syndrome in the apparently dynamic clusters. Interventions must address this aspect with earnestness of purpose.

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1. Introduction

Quite contrary to the notion that small firms are essentially a transitional phenomenon and would eventually 'wither away', paving the way for the growth of large ones, small firms have, in fact, attracted serious attention of scholars and practitioners alike due to their notable performance now close to a quarter of a century. The recessionary trend the world over during the 1970s and 1980s witnessed the large vertically integrated Fordist-Taylorist plants functioning under duress. This was largely due to the highly fluctuating demand scenario. Moreover, there was also a shift in the nature of demand that underscored the need for highly customised and, hence, small batch of production. Unlike the large units, small firms exhibited remarkable resilience in catering to the emerging demand patterns through dynamism, alacrity and purport. It eventually involved a technological and managerial paradigm shift that would hinge upon flexibility. Small firms in many western industrialised societies as also in the newly industrialising economies of Asia and Africa, not only contributed to employment generation, endogenous entrepreneurial growth and regeneration of local economies, but also competed in the global market earning valuable foreign exchange (see, for example, Piore and Sabel 1984; Pyke and Sengenberger 1992; Regnier 1990; van Dijk and Rabellotti 1997; and Pietrobelli and Sverrisson 2003). As interest grew in their achievement, a number of studies, carried out in different countries, highlighted the fact of spatial togetherness of firms engaged in manufacturing similar products. Flexibility, it has been argued, is fostered best in such spatio-sectoral clusters. The collectivity not only provides economies of agglomeration, but also considerably reduces transaction costs so vital for firm growth. Spelling out the positive outcomes of clusters, or what he termed industrial districts, Alfred Marshall, over a century ago, observed that;

"... so great are the advantages which people following the same skilled trade get from near neighbourhood to one another. The mysteries of the trade become no mysteries; but are as it were in the air. Good work is rightly appreciated, inventions and improvements in machinery, in processes and the general organisation of the business have their merits promptly discussed; if one man starts a new idea, it is taken up by others and combined with suggestions of their own; and thus it becomes the source of further new ideas. And presently subsidiary trades grow up in the neighbourhood, supplying it with implements and materials, organising its traffic, and in many ways conducing to the economy of its material" (Marshall 1974: 225).

Competition remaining the lifeline of business, the prevalence of trust, reciprocity and mutualism were found to be the high points of industrial clusters (Humphrey and Schmitz 1998). Encapsulating the benefits of clustering, i.e., the "competitive advantage derived from local external economies and joint action", Schmitz (1995: 530) emphasises that 'collective efficiency' acts as a catalyst for business growth. In fact, much of the policy intervention to promote clusters during the 1990s and beyond derive from these positive dimensions of collectivity.

Clusters differ from one another depending upon the history of emergence, nature of the product, markets and organisation of production. Based upon these functional dynamics, a broad typological distinction was made wherein clusters would be identified as being on the 'high road' or 'low road'. The former referred to cases where business dynamism was promoted through investment in 'efficiency enhancement and innovation' and the latter reflected negative firm strategies such as cost cutting via reducing labour cost, poor input use, inadequate or absence of networking, that result in technological stagnation and sub-standard products. The 'high road' syndrome was found common in developed nations (see, for instance, Pyke and Sengenberger 1992), where certain formal regulation, often devised at the cluster level, ensured collective vigilance against any unfair business practices. As of the developing nations, a fairly detailed survey of available evidence by Nadvi and Schmitz (1994) concluded that most clusters bore 'low road' characteristics and some a combination of the two. None, however, had symptoms of an entirely 'high road' variety.

2. Importance of Small Firms and Clusters in India

Small firms in India continue to be a vital and vibrant component in the process of industrialisation and development. Between 1961 and 1981 employment in the small scale sector witnessed a rising trend in contrast to a decline in the household industries sector.¹ The 1980s, in fact, experienced unprecedented growth in the small scale manufacturing activity and during 1981-91, "most if not the entire, addition to manufacturing employment has come from non-household non-factory segment" (Ramaswamy 1994: M-16). Even by mid-1990s the small sector accounted for above 50 per cent of manufacturing employment. It was held that, "The growth of employment in the small scale sector is highly encouraging as this displays the sector is still very much in a position to absorb large amount of idle labour" (Government of India 1997a: 119). In fact, by the turn of the century, 2000-01, the small scale industry could be credited with close to 80 per cent of manufacturing employment. From around 4 million persons employed in the small scale industries in 1973-74, the figure has risen to a massive 18.56 million by 2000-01. The primacy of this sector can be gauged from the fact that over 40 per cent of gross turnover in manufacturing and 35 per cent of total exports were accounted by this sector by 2000-01. Concurrently, between 1973-74 and 2000-01, whereas the number of units has multiplied 8-fold, reaching 3.37 million, the value of production in current prices has risen from about Rs. 72 billion to 6455 billion. The remarkable aspect of such performance is that the capital productivity of the small scale sector has invariably been higher than that of their large counterparts, at least during the 1980s and 1990s. The growth of this sector has been "generally above" those achieved by the industrial sector as a whole (*Ibid*: 132; SIDBI 2002: 26; and Singhania 2003).

Although no exact estimate is available, in all probability, a large proportion of the small firms occur in clusters. In India, industrial clusters - traditional and modern, natural and induced – galore. A recent account indicates that the total number of clusters in the country could be as high as 2400 (www.smallindustryindia.com/clusters/clus/ovrclus.htm). In recent years, there has been a growing recognition of the fact that clusters provide external economies of scale and scope and contribute to

1. During the two decades, 1961-81, "while the growth in total manufacturing workforce was 52 per cent, the rate of increase was 128 per cent in the non-household sector, within which the rate of increase was 154 per cent in the non-factory sector" (Eapen 1981: 1455).

the advancement of small business (Nanjundan 1994: 40). Moreover, achieving collective efficiency by facilitating flexibility in clusters has been possible through local level efforts and mostly without any state support. "Agglomeration of SSEs help nurture accretion of skills and economies in information and infrastructure development. Unaided by the state and fuelled by access to domestic and international markets and cheap labour, spontaneous growth of over 300 clusters has already taken place" (Government of India 1997b: 1).

The advent of the process of liberalisation of the Indian economy, mid-1991 onwards, has posed new challenges for the erstwhile 'protected' small enterprises. The growing emphasis on market orientation and direct exposure to the international competitive environment have necessitated a fundamental restructuring of the institutional framework towards enabling small enterprises to perform with competence. Hence, in the changed situation, the importance of customised production, often requiring the use of microelectronics, export orientation and quality consciousness, especially for the industrial clusters, has been realised. Further, clusters are now required to develop networking with service provisions, for instance, consultancy, financial services, market research, advertising, packaging and product design, to be able to perform a more active role than before. Also, a greater thrust on upgrading labour skills, provision of flexible norms of work, improved methods of supervision and quality control has been realised essential for achieving competitive advantage.

As dynamic clusters are said to be holding the key for much of the small firm development in the future, it would be most useful to understand and appreciate their *modus operandi*. That would serve a valuable input to any policy intervention that may be construed. Detailed studies on Indian clusters are still very few.² Covering both modern and traditional sub-sectors in the southern, northern and western parts of India, these enquiries have contributed to our comprehension of the dimensions of technological dynamism, inter-firm relations, social embeddedness and support systems. For one thing, little is known about factors promoting or hindering joint action, and, for the other, much needs to be learnt regarding discrete strategies of

2. Mention may be made of the following studies: Kashyap and Tiwari 1986; Cadene 1989; Tewari 1993; Holmstrom 1994; Swaminathan and Jeyaranjan 1994; Cawthorne 1995; Knorringa 1996; Basant 1997, Das 2000; and Padh and Das 2000.

internal differentiation as also employment implications. For purposes of both policy and debate on clustering studying as many cases as possible would be essentially enriching.

In this paper we have focused on two clusters in the leading industrial state of Gujarat in western India. These two cases are presented more in juxtaposition than in striking contrast. The empirical content and qualitative aspects of this paper draw upon field surveys of the flooring tile cluster in the Morbi town and garment cluster in the Ahmedabad city, undertaken twice during 1994-95 and 1998. In addition to in-depth studies of 21 units from each cluster, discussions were held with functionaries of business associations, officials of the local and state governments, traders, workers, spare part dealers and others directly or indirectly connected with these local industries.

Given wide diversities among clusters and the particular nature of competitiveness therein, ours is a modest attempt to examine as to how firms perform as competing units and, simultaneously, act as active and responsible members of the collective. Does collectivity *per se* ensure a cooperative ethos that enhances efficiency? What are the factors that encourage joint action? Why does such action fail or fail to take place at all? Under competitive pressure what is the nature of flexibility that firms adopt? Is this flexibility typically based upon undermining labour/product standards? Whether and how technology, scale and markets shape firm behaviour in a collectivity? These are some of the issues enquired into in this paper.

Section 3 of the paper traces the aspects of evolution and growth of the flooring tile and garment clusters. Subsequently, focusing primarily on three critical dimensions of clustering, namely, internal differentiation, competitive strategies in Section 4 and joint action in Section 5, the analysis tries to capture the complex nature of competition and response across the two clusters. This has been followed by a discussion, in Section 6, on working conditions that reflects the implications (or, flexibility?) of firm strategies to cope with competitive pressures. Section 7 presents a synthesis of features of both the clusters and, to an extent, compares and contrasts the two cases.

3. The Urban Impetus: Emergence of the Two Clusters

*The Flooring Tile Cluster of Morbi*³: Mosaic flooring tiles as a convenient building material, as compared to the conventional practice of plastering the floor, acquired popular acceptance in western India, largely through the durable and designful *galicha*⁴ tiles of Morbi. A small town in the relatively less developed Saurashtra region of Gujarat, Morbi has been an industrially active region traditionally. By early 1970s Morbi had three tile manufacturing units. This included the leading firm Royal Tiles, built about 70 years ago and the second such enterprise in India at that time. However, it was the rapid urbanisation in Gujarat since the mid-1970s that led to the phenomenal rise in the demand for flooring tiles. In fact, between 1971 and 2001 the proportion of urban population to total population rose from 28.1 per cent to 37.7 per cent in Gujarat and more so in the Saurashtra region, from 31.4 per cent to 38.2 per cent. These figures are well above the corresponding all India figures of 19.9 per cent and 27.8 per cent (Director of Census Operations 2001: 53 and 55; and Government of Gujarat 2003: 77). With the boom in urban housing, bulk of the demand for flooring tiles has come from the builder-contractors of high rise residential and commercial complexes.

The strong demand for the product encouraged many local people to set up their units in Morbi, where, in 1979, following a major breach of its local river dam, liberal financial assistance and other incentives were provided by the state towards industrial regeneration. Moreover, the sand of the river was readily available as an inexpensive but important raw material in tile making. The fast growth of the cluster can be gauged from the fact that the number of units rose from three to 320 between early 1970s and late 1990s. In keeping with the growth of the cluster, there has been a substantial rise in raw material suppliers, machine dealers, *farma* (mould) makers, repair units, traders, transporters, telephone booths and eating joints in the locality. With more and more households in rural and small town areas gradually opting for flooring tiles, the cluster is poised for further growth. An increase in the number of units in Morbi and also the coming up of similar clusters in and around other major

3. See, Das (1998 and 1999a), for a detailed discussion on this cluster.

4. Literally, a carpet, these *galicha* tiles when arranged on the floor resemble a colourful carpet.

cities of the state have resulted in growing competition. The entrepreneurs from Morbi are trying hard to reach as much of the emerging new markets in different parts of the state as possible. Further, given the heaviness of the product, transporting to far off markets adds to the price of tiles, rendering them non-competitive vis-a-vis tiles made at units closer to the markets.

*The Garment Cluster of Ahmedabad*⁵: A distinct rise in the demand for and export of readymade garments in India may be seen around the late 1970s. Between 1970-71 and 1998-99, the share of garments in the value of total exports from India rose from a mere 2 per cent to 12 per cent valued at USD 5269 million (Chatterjee and Mohan 1993: M-96; and www.ciionline.org/sectors). Importantly, the garment industry is predominated by small units. The growth of urbanisation and the consequent fast rise in the service sector mid-1970s onwards, led to the emergence of a large consumerist middle class. Further, with the progress of modernisation there occurred a cultural shift hyped through the print and visual media. All these factors prompted the domestic garment industry to look up. Ahmedabad, being a premier and long-established textile centre, witnessed a steady growth of the garment industry by early 1980s. During later years export of garments also encouraged expansion of this industry in Ahmedabad. Also, unlike the rather limited market reach of the Morbi tiles, the garment makers have aimed to access both rural and urban customers not only within the state but outside the state as well. This naturally subjects these entrepreneurs to strong competition, as at every level and location of market there are umpteen number of producers.

With an existing well developed cloth market, numerous units dealing in sewing machines, thread and other accessories, embroidery work and repair shops have come up in the locality. As the domestic demand for garments also has been expanding steadily the cluster has bright business prospects. There are over 2000 units in the city, indicating the intensity of business in the cluster.

5. See, Das (1996 and 1999b), for various aspects of this cluster.

4. Differentiation and Competition

A striking yet typical feature of the flooring tile cluster of Morbi is the prolonged technological stagnation in the sphere of process innovation. Practically every unit used locally made machines, both old and new, which were reported to be of average standard. Breakdown of machines, due to over use and weak components, frequently occurred. Of the three main devices of the manufacturing process, namely, mixer-grinder, press and moulds, there has been a marginal shift from hydraulic to oil presses. In fact, the improved oil press, that ensures a better surface finish and shine, is still not very common and is used along with the less expensive hydraulic presses. The widespread preference for the unsophisticated and 'outdated' technology in an otherwise buoyant industry would indicate a 'low-road' syndrome. Especially so given that local entrepreneurs knew about the modern technology from Italy and Germany, which, in fact, was being used by the prominent Royal Tiles. The non-graduation to a superior technology by most units could be linked to the (a) very high and practically unaffordable price of the foreign technology; (b) inability of the new technology to manufacture *galicha* tiles; (c) low cost and easy availability of the traditional machinery in the region, and, importantly, its suitability to produce both regular and *galicha* tiles of good quality using local labour, and (d) availability of inexpensive repair services and spare parts for the indigenous machinery.

In total contrast to the inert basic mechanical process of manufacturing, numerous emerging tile designs have perpetuated product differentiation through process innovativeness; the rapidity of change, for instance, has resulted in a range of combination of floral and geometric patterns for *galicha* tiles. A recent interesting design innovation has been a peculiar admixture of both regular and *galicha* patterns, whereby large naturally colourful stone chips are interspersed in some systematic manner. Variations in tile sizes also form part of the dynamic innovative activity.

Giving a final tangible form to the innovation becomes the exclusive prerogative of the master mason, who, apart from deciding upon the particular dyes and chips to be used, envisions the new moulds to be made and the sequencing of their use in producing the new tiles. As revealed through the survey, these designs are developed/ adapted internally often based upon suggestions from client firms or individual customers. The producers' strive for capturing the niche market, however

small, sustains this eternal drive for customised production.

Intense inter-firm competition is a normal phenomenon in industrial clusters, where capturing as much of the market share as possible becomes a survival strategy. In the flooring tile cluster local rivalry is evident. This has been largely because entry barriers, of technology and capital, are practically absent. Product differentiation and marketing skills remain the essential instruments of business growth in a highly monopolistic market scenario. The concern of the entrepreneurs was reflected in their treating of price as a critical factor of competition. Evidently, the nature of input-mix would largely influence price through variations in the cost of production. Further, in order to gain a competitive edge, technological upgradation and product promotion through advertising, provision of concession for bulk purchase and other benefits were considered important (Table 1). However, such practices as adversely affecting the competitors' normal business, as copying designs, luring the gullible customers through bribing local agents, or misinforming buyers against competitors' products, prevail too (Table 2). Whereas neck and neck price competition, may, theoretically, render buyers better-off, it could actually have deleterious implications. Given the standard and simple machineries available locally and relatively small investment required, it is difficult to distinguish between the competence of entrepreneurs.

As of the changes in the range of designs it is too obvious to be kept as a secret. The lucre of the business and the ease of entry have greatly encouraged a number of units to come up, often with the singular motive of making a fast buck. Unfortunately, the growth of the cluster has taken place along with a rise in unscrupulous production practices, undermining the innovative ethos as also the perseverance to maintain high standards of the final product. A clear example of such a phenomenon is the use of inferior and inexpensive raw material alternative that would cut cost substantially.

The most important input in tile production is white and/ or grey cement, the prevailing price per 50-kg bag was Rs. 450 and Rs. 140, respectively. It was found that as a gross substitute to cement, some producers were using dolomite powder, the cost of which was about 1/15 of that of white cement and one-fifth of that of grey cement. Tiles of dolomite-mix are deceptively similar to those made of white cement. The large price differential naturally attracts the individual non-discerning customer as much as the profiteering builder-contractor, who gains from the low cost and confusing identity of the product. The builder inflates the cost by showing the tiles to

be made of white cement. Price competition through input compromise by some producers in the cluster did have dampening repercussions on those quality conscious manufacturers, some of whom, also resorted to the unfair practice merely to continue in the business. A typical problem here is that, tile is an "experience good", the quality, or lack of it, can be verified only after a certain time lag of using it. The unscrupulous manufacturer takes advantage of this characteristic and passes on the batch of inferior tiles to the customer.

In the garment cluster of Ahmedabad, known to be highly competitive and literally customer-driven, there exists no space for complacency in the arena of product as well as process innovativeness. The alert entrepreneurs keep themselves updated on the developments taking place both in machinery segment and also pattern/designs in the fashion industry. Although local makes of principal machineries such as sewing machines, gauze machines, inter-lockers and embroidery machines are available easily, the preference for the high-tech Japanese brands, e.g., Brother and Juki sewing machines, is clear. They are aware of the maneuverability of these machines wherever a need for product differentiation arises. We found the use of these advanced machines in four of the 21 units surveyed. Despite this watchfulness, most units find it hard to afford new imported machinery.

The unmistakable fact of coexistence of concern for innovativeness and the actual inability to purchase the technology, has prompted a rather curious workable alternative, which may somewhat be akin to 'intermediate' technology. Widespread use of second-hand foreign machinery, modified suitably to serve the purpose of the local unit, was a notable feature of this cluster. A fairly well developed local network of machine suppliers, repair shops and client firms exists that largely facilitates the procurement, adaptation and assimilation of this flexible yet inexpensive technology. Moreover, the easy and local availability of all types of machines and spare parts, new or old, was considered an important aspect of the cluster. The rise of the local technological dynamism, sustained essentially through the existence of a broad based indigenous manufacturing of machineries and components and repair activities, has served as a catalyst to the growth of this cluster.

The essence of any vibrant small firm cluster being close competition between units, the garment cluster is no different. The relative ease of entry, both in financial and technological terms, and the ever-growing demand have kept the entrepreneurs on

tenter-hooks. As regards the perceived vital issues of competition, both price and quality were considered important (Table 1). However, creating novel garment designs was stated by most respondents as a major strategy in product differentiation. Given the need to permeate into the smallest of market segments and also to create niches, much emphasis has been placed on product promotion through advertising widely and providing concessions for bulk purchase. Realising advantages of better locations, the entrepreneurs looked beyond the local market and many expressed keenness to do business in cities like Bombay, Delhi and Bangalore where both demand and competitiveness for garments were high. Paying higher wages to workers, better packaging and even cordial dealings with customers were considered worthwhile in acquiring that extra-competitive edge.

The pressure to survive and grow in the thickly contested cluster, eventually, has given rise in some to out-compete the fellow producers, by taking recourse to various tactics, often unfair in nature (Table 2). The widespread emulation of designs/patterns of other units and, importantly, misusing trademarks of popular firms could act negatively against the innovative drive of enterprising firms. As a related issue, collecting information on designs from workers of other firms was also found significant. As in Morbi, here also various strategies were being adopted by the firms to attract customers. Notwithstanding such practices, indicative of the low-road syndrome, there prevailed a tremendous sense of upholding product quality. In most cases, the entire stages of production were zealously supervised by the entrepreneur personally. This involved checking whether the products conformed to design and material specifications, proper ironing and packaging and finally dispatching to the wholesale buyers. Those firms producing for an export market were very careful about the quality dimension. In fact, they even tried out total quality control (TQC) and just-in-time (JIT) techniques in production organisation. As far as material used was concerned, they would even suspend production unless the right material was available.

Table 1: Major Elements of Competition

Issues	Flooring Tile Cluster	Garment Cluster	t-value
Range of designs	8 (38.1)	20 (95.2)	4.82
Sales network	8 (38.1)	15 (71.4)	2.25
Price differentials	17 (81.0)	14 (66.7)	-1.04*
Product promotion	8 (38.1)	12 (57.1)	1.23*
Prompt delivery	2 (9.5)	12 (57.1)	3.70
Product quality#	17 (81.0)	11 (52.4)	-1.36*
Locational advantage	8 (38.1)	10 (47.6)	0.61*
Production capacity	3 (14.3)	8 (38.1)	1.73*
Employing skilled labour	2 (9.5)	7 (33.3)	1.92*
Technological advantage	13 (61.9)	5 (23.8)	-0.99*
	n = 21	n = 21	

- Notes: 1. Figures in parentheses are percentages to respective column totals.
2. * Indicates significance across clusters at 0.05 level.
3. n Number of units
4. # For the tiles it relates to input quality and for the garments to better finish.

Source: Field Survey

Table 2: Out-competing Tactics

Tactics	Flooring Tile Cluster	Garment Cluster	t-value
Copying designs/ patterns	20 (95.2)	20 (95.2)	0.00*
Imitating trademark	2 (9.5)	12 (57.1)	3.70
Wooing customers	16 (76.2)	10 (47.6)	-1.95*
Misinforming/ misleading customer/ traders	8 (38.1)	8 (38.1)	0.00*
Creating hindrances in fellow producers' business	5 (23.8)	6 (28.6)	0.34*
Obtaining information from workers of competing firms	4 (19.0)	8 (38.1)	1.36*
	n = 21	n = 21	

Source and Notes: Same as in Table 1, excluding Note 4.

Although almost all the necessary raw materials and machinery were available locally, on certain occasions these were procured from markets in Delhi or Bombay. They often changed their input suppliers and tried out new ones if the required materials fell short of specified quality standards. Importantly, every producer considered

compromising product quality was considered detrimental to business growth, whether the manufacturers aimed to cater to the discerning up-market customers or low-end rural/ small town buyers. The cluster comprised producers with sophisticated machinery capable of using expensive materials and also those with average, second-hand machines and could use relatively cheaper clothes and accessories. However, strategically the firms concentrated on different segments of market demand.

The large and growing market in rural areas and small towns for garments has also witnessed keen competition from increasing number of entrepreneurs, including those with established brand names. It becomes a difficult proposition to keep the prices relatively low, while being able to manufacture a differentiated product with distinct design or accessories, and not using sub-standard cloth. This ingrained strive for quality, even in the producer catering to the low-end market, has, in fact, led to exploring and reaching newer markets by investing in sales promotion measures rather than only indulging in price competition. Employing sales persons, improving upon packaging and being able to honour orders on time have become important means of staying in business. Whereas a few opted for in-house development of garment designs, most others preferred to follow fashion magazines and even attending garment fairs and exhibitions. Ready to face the challenge of highly competitive metropolitan and even export markets, more than half the respondents observed that they would be able to upgrade their production quality, if need be. The very exposure of this cluster to the large number of producers in the national/global markets, the outward orientation and the indispensability of capturing a niche even in the low-end market, have instilled a certain quality consciousness in the local producers.

It appears from these two case studies that the nature of the market aimed for, as, in fact, eventually, influences the emphases of the business, insofar as such vital issues as product quality, delivery schedule and innovativeness are concerned. Even factors like operating within capital constraints or inadequate physical infrastructure at the workplace have not acted as deterrents in striving to achieve higher standards in small business. This is especially the case, when the market targeted is either foreign or upper-end domestic ones; the latter could potentially be larger, well-paying and almost as attractive as the former, i.e., the foreign market. The garment sector has established this observation amply. The desire

to access far-flung markets and cater to varied demands for garments, in Ahmedabad manufacturers is noteworthy; although an enquiry into the problem of export rejects, if and when occurs, remains to be undertaken. A comparative assessment, as with other garment-exporting Indian cities, could throw interesting light into this potential threat of losing a market share by either error or commission in manufacturing and/or trading. Caught in a different dynamics altogether, many units of the roofing tile cluster indulge in a business that acts as disincentive to look beyond easy money and mediocre products and processes. This, however, does not hold for those few scrupulous flooring tile makers who have been pursuing a quality-driven path to compete successfully in the upper-end market, whether domestic or abroad.

Whereas much remains to be understood about Indian clusters, they can be easily contrasted with their counterparts in most of the industrial West at least on the count of the overwhelming interplay of informality in the production as well as labour processes in Indian manufacturing. Nevertheless, the so-called textbook model of an industrial district is also not commonplace in the West. Often much depends upon the specific sectoral and/or regional policy in inspiring the clusters to move to a higher growth path by minimising inter-firm rivalry.

5. Collective Action

As could be observed in the flooring tile cluster of Morbi, due to intense inter-firm competition and the very prevalence of horizontal forms of production, wherein out-contracting is not practised, the necessity of firm interdependence might appear to be low. However, this is not so. Almost all the producers are members of the Morbi Flooring Tiles Manufacturing Association, which takes up issues concerning to the cluster. These include, rising prices of inputs, especially white cement, and also the relatively high (compared to other neighbouring states), hence unfavourable, rates of sales tax. The association, on behalf of its members, negotiates with ministers and bureaucrats of both the provincial and central governments and also input producers/suppliers concerning the aforesaid problems. In specific instances, it has helped individual units in matters of legal or such other procedural complications. Table 3 indicates the nature of such cooperation provided by the association, including cost saving joint procurement of inputs.

Table 3: Forms of Collective Action

Activities	Flooring Tile Cluster	Garment Cluster	t-value
Sales promotion through fairs/ exhibitions	-	19 (90.5)	
Assisting in legal matters	8 (38.1)	12 (57.1)	1.23 [*]
Functioning as a source of information on products/ processes	1 (4.8)	10 (47.6)	3.50
Guiding in government policy matters	2 (9.5)	9 (42.9)	2.59
Providing marketing guidance	-	8 (38.1)	
Arranging group procurement of inputs and services	12 (57.1)	-	
	n = 21	n = 21	

Source and Notes: Same as in Table 2.

It needs to be noted, however, that not all the members are satisfied with the role and functioning of the association. Complaints of politicking, favouritism and inaction were made by some respondents. A clear case was the inability of the association to be able to prevent those members indulged in or promoting adulteration, by adopting a strict quality certification measure, for the cluster as a whole. Similarly, very little concrete action has been taken towards securing basic support facilities, e.g., metalled roads, water and sewerage in the locality.

None the less a positive aspect of this cluster is the practice of helping out fellow producers in times of emergency, e.g., providing short term financial assistance, group procurement of inputs, sharing production in case of bulk order and even discussing individual business problems, occasionally. The phenomenon of mutual support, naturally, is mostly found within the same caste/ community groups.

The garment cluster of Ahmedabad shows that the drive to compete and excel by small firms largely derives its impetus through certain forms of collective action. The utility value of holding membership with the spontaneously formed Gujarat Garment Manufacturers Association (GGMA), and in some cases also with the Bombay based Clothing Manufacturing Association of India (CMAI), was recognised by almost all the entrepreneurs. Both in tackling the threat of exigency and also to widen the opportunity base, the firms emphasized the role of business associations. Chiefly, by nurturing a close rapport with the state and local government officials and politicians,

the GGMA has been able to negotiate towards setting up of a full-fledged export processing zone in the state capital for the aspiring garment manufacturers. Even the association functionaries have been successful in starting a branch of the National Institute of Fashion Technology in the state. These two establishments could provide major boost to the local garment industry and open up access to both technology and market at the global level. At a local level, the GGMA has been remarkably useful by organising periodic garment fairs and fashion shows. Such occasions give a unique opportunity to the small firms to exhibit their products and make necessary business deals with the large number of traders and customers who visit these fairs (Table 3). Further, firms approach the association in connection with legal problems faced in business. As regards technological progress in both the product and process spheres, the associations act as an important source of information. Workshops on trends in garment manufacturing processes have also been held by these associations. By suggesting ways of product promotion, help exploring newer markets and even guiding producers in exporting the business associations play a useful role. These bodies have been contributing notably towards local business promotion and upgrading of production standards.

Inter-firm relationship was stated to be cordial, or at least non-interfering. Mutual help was extended in matters such as providing monetary support, sharing labour and machineries especially when large supply order commitment had to be met. Although such practices were more common within distinct caste/community groups, the social embeddedness of local business remains a positive aspect of such clusters. In fact, as a friendly gesture, sharing of information/experiences regarding unreliable input suppliers, traders or such other problems was being done among fellow producers.

It is fairly indicative in this study that clustering *per se* does not guarantee a favourable collective action. Much depends upon the specificity of the nature of interrelationships, whether social, political or strategic, between competing firms. The mere recognition of the usefulness of inter-firm cooperation may not, *in actuality*, translate into a healthy joint action towards mutual business promotion. As it happens in India, as also seen in both the study clusters, caste/community ties predominantly determine the form and extent of supportive interconnectedness that might exist in a given cluster. In a substantive way, this social dimension distinguishes certain clusters from others, home or abroad, often clouding rational business sense.

The interesting aspect of collective action in small firm clusters is that while, in more than one way, they may resemble that of the typical industry associations, but the firms in a cluster can, in fact, gain much headway through a focused - sectoral/locational level - lobbying or influencing policy. In case of garments, the cluster, with a strong membership with GGMA, could impact such decisions as establishing a technology-cum-training centre and reducing sales tax. The cluster members could, effectively, involve both influential and relevant bureaucrats and politicians to further their cause. This, however, did not quite take place in the Morbi flooring tile cluster, despite the existence of the Morbi Chamber of Commerce and Industry. Whereas caste can help promote intra-community cooperation in business, a multi-caste cluster may have a higher incentive to work together at least in large and expensive non-competitive areas; the sole driving force has, however, to be a buoyant upper-end market.

6. Labour: Casualty of Collectivity?

A crucial component of any industrial cluster is its labour. Typically, in developing countries, industrial clusters often are marked by the overwhelming presence of what have been termed informal or unorganised units; or, as some would characterise them as 'sweatshops'. In the event when the business dynamism of a cluster is sustained at the cost of labour welfare or security, there is much reason for concern.⁶

Irrespective of the different business strategies followed in the two clusters discussed here, one commonality is certain - the appalling working conditions and the growing process of casualisation of labour. In the tile units, the manufacturing processes being simple, workers move between activities and in a sense may be called 'multi-purpose'. However, apart from no formal skill formation, the workers are not protected against ostensible occupational hazards. For instance, mixing of mortar, dyes and chemicals in bare hands and working for long hours in very dusty and unclean factory sites results in chronic ailments like bronchitis, silicosis, asthma, tuberculosis, skin and vision disorders. Unhygienic surroundings with practically no provision of clean drinking water, proper sewerage systems and other basic facilities

6. In this context, see, Schmitz (1990), Holmstrom (1993), Galhardi (1995) and Das (1999c)

add to the predicament of the work places. In the garment units, prolonged working hours, often involving high concentration, in severely congested structures with poor ventilation and lighting could lead to various health problems.

In both the cases, high labour turnover has reinforced the employers' stand that they need not invest in or, for that matter, be concerned about labour welfare. Most workers were holding 'temporary' status, implying thereby no formal state sponsored benefits, e.g., provident fund, maternity leave, employees' state insurance and gratuity, would accrue to the workers. In fact, whenever there has been a pressure on the entrepreneurs, either in terms of receipt of large orders and/ or switching over to a differentiated products or process, the burden of flexibility has been passed on to the labour, without any commensurate rise in remuneration or such other gains. The labour has invariably emerged a net loser in the process of firms responding to the dual challenge of competition and discrete customer preferences. Importantly, the otherwise actively supportive local industry associations have hardly considered the plight of labour an issue worth earnest consideration.

7. Concluding Observations

Industrial clustering as a specific form of production organisation, especially in small firms, has generated much interest, mainly due to its potential to be resilient, self-sustaining and technologically dynamic even in tough competitive environment. This has prompted hectic efforts at both international and national levels to promote clusters through policy initiative. However, it is being widely recognised now that any such policy formulation/intervention must be based upon both extensive and intensive study of clusters as they function, especially in the late industrialising developing economies.

Industrial clusters abound in India and present a host of complex dynamics of their survival and growth. The two clusters discussed in this paper provide a glimpse of the different dynamics in the apparently similar situations. Both the tile and garment clusters relate to modern consumer goods and have grown in keeping with the demand generated through the urbanisation-modernisation process. Heightened competitiveness has forced firms in both the clusters to devise strategies to outdo the fellow producers. However, the garment makers still would not compromise on

quality of the final product, as the tile makers would. Rather as an alternative means to excel, the former would try out reaching newer markets (including international) or creating niches for itself through product promotion and improved marketing. The scope and size of the market, to some extent, directly influence firm efforts to adhere to better standards of output. Internal differentiation, that is effected through product/process innovativeness, remains the critical aspect of firm existence and growth and encourages technological dynamism. The point is that often the constraint of affordability, non-availability or non-awareness of superior technology induces firms to operate at a low level equilibrium, indicating perpetuation of the 'low-road' syndrome. What needs to be appreciated is the innovativeness or ability to adapt even under these trying circumstances.

Collective action still remains the brightest aspect of industrial clusters and, as seen through the two cases, it promises prospects for growth with mutual support, despite the deep roots of intra-community mutuality. However, as the garment cluster would indicate, it was a certain closeness to the 'power block'/policy makers/ politicians, better access to current trends in technology and markets in the wider world and also a relatively well developed transport and communication infrastructure, as in Ahmedabad compared to Morbi, that facilitated the business associations to function in an effective manner, even subtly ensuring better production standards to be maintained in the collectivity. In contrast, the lack of collective vigilance, as in the case of inferior input use in the tile cluster, or, misusing brand names in the garment cluster, could encourage practices detrimental to its own growth and reputation in the long run.

The two issues which call for deeper thought and careful action are making provision of basic facilities in the worksites/ locality and positive improvement in the working and living conditions of the workers, including increased remuneration. Encouraging competitiveness through promotion of clusters cannot be sustained by focusing *only* on the interests of the producers and consumers at the cost of labour conditions. Despite different functional dynamics, these two case studies amply suggest this, which may also be relevant in the wider developing country context.

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