AN APPLICATION OF THE FLEXIBLE SPECIALISATION METHODOLOGY TO THE FURNITURE INDUSTRY IN THE WESTERN CAPE

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INTRODUCTION

Could flexible specialisation (FS) constitute a feasible trajectory for industrial development, a sustainable alternative to mass production, viable for LDCs[1] as well as more developed economies? This issue has fuelled intense debate and much controversy in the last decade[2]. South Africa has not remained impervious to these developments overseas. Increasingly policy prescriptions regarding small-scale manufacturing have resonated with some of the leitmotifs so distinctive of the FS approach.

One of the major conclusions flowing from the FS analysis is that efficiency in production is not embodied only by the economies of scale inherent in large scale manufacturing. The paradigm contends that the combination of flexibility and efficiency is also accessible to smaller firms in industrial districts, and not only to large firms. While most of the initial research was conducted in industrial countries, it has been recently expanded to the Third World as well.

At the same time, in both developed countries and LDCs, the employment and growth generating potential of small and medium-sized enterprises (SMEs) have captured the attention of policy makers and international development agencies. So it is hardly surprising that FS, with its emphasis on the potential dynamism of SMEs has sparked so much interest:.

> For more than a century, small-scale industry has been the weak and ugly duckling in the mainstream of the industrialisation debate .... In the form of flexible specialisation, small-scale industry has demonstrated its economic and political strength, not in times of easy growth but in times of crises.
>
> (Rasmussen et al,1992:2)

In South Africa, the discourse on SMEs has largely mirrored that of overseas. The benefits for the country associated with a vibrant small business sector in terms of employment

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[1] Less Developed Countries

[2] In fact, the enthusiasm the FS paradigm has engendered in its exponents has only been equalled by the trenchant criticisms meted out by its detractors. It has variously been described as a "tour de force" (Phillimore,1989:8), and "a radical supply side strategy" (Hirst & Zeitlin, 1991:43). Critics have labelled it "incurably romantic" (Williams et al, 1987,439), and as a "utopian myth ... hinged upon partial truths, obscured realities and unattainable panaceas" (Amin,1988:1), an economic justification of a political shift "where reformist left meets radical right in an orgy of small business adulation" (Rainnie,1991:58)

generation, poverty alleviation, economic growth, industrial deconcentration, basic good production and other favourable social effects have been discussed in detail elsewhere[3].

However, a cause for concern is that small businesses, and black SMEs in particular, are concentrated in the retail and commercial sector (70% of all black SMEs) but are under-represented in the manufacturing sector which accounts for only 19% of all black SMEs (Riley,1993). Most of these manufacturers are engaged in the production of soft goods (eg dressmakers, shoe production and repair and beer brewing), while hard manufacturing businesses (eg wood and processing, fabricated metal production etc) are comparatively rare. This concentration in trade and commerce appears to be fairly typical of African economies. The percentage of manufacturing activity in South Africa is, however, significantly less than that of other African countries (Ruiters,1994:21). It is precisely this feature of the SME landscape which provides an incentive to glean from the FS thesis whatever policy recommendations are appropriate for South African small-scale industry.

AIMS AND OBJECTIVES

The primary aim of this paper is to attempt to apply the FS methodology to the furniture industry in the Western Cape. As described in detail in the following section, the gains from employing this approach include "the conceptualisation of industrialisation as a locally embedded process, and the focus on network and on technological capability as essential elements in this process" (Aeroe,1992:16).

A positive approach is then used to assess which aspects of the Western Cape furniture industry (if any) are similar to the industrial organisational structure which has been termed the small firm variant of FS. The fieldwork for the empirical part of the case study was carried out on a sample of 20 furniture manufacturing concerns drawn from three clusters of

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[3] Manning,1994; Manning & Mashigo,1993; Cant,1992; Page & Steel,1984; Riley,1993

furniture enterprises in Epping, Lansdowne and Blackheath. The criterion for the selection of these research areas was the existence of a critical mass of sectorally concentrated firms agglomerated within a geographically compact area. A key objective was to attempt to isolate the influence of the variable "locality" on other variables such as the extent of cooperation, firm performance and strategies and supplier relations, inter alia.

Finally the normative implications of this variant are examined. Do features in the Western Cape industrial landscape exist which suggest the *potential* for development of regional industrial clusters along FS lines?

In order to conduct a case study broadly within the FS framework, it is necessary to first review the literature and extract testable hypotheses. Firstly the general literature on the FS small firm variant is reviewed. Then a survey of FS case studies of the furniture/woodworking sector is presented. The next phase is a detailed perspective on the South African furniture industry given as a background to the empirical study which follows.

CHAPTER ONE

LITERATURE REVIEW: WHAT IS FS?

The term Flexible Specialisation was first coined by Piore and Sabel (1984) in their pathbreaking book, The Second Industrial Divide. Mass production (the manufacture of standardised goods in long runs using product specific machines and semi-skilled labour) requires homogenous mass markets and a stable economic environment to reap economies of scale and cover the high fixed cost of dedicated equipment (Zeitlin,1991:386). Mass production economies have therefore evolved institutions (such as those central to the welfare state) to secure a "workable match between production and consumption" (Piore & Sabel,1984:4).

Piore and Sabel (1984) then contend that the effectiveness of these institutions which are conducive to mass production have been eroded by external shocks and striking changes in world market conditions. The shocks story focuses on the oil price increases of 1973, the collapse of the Bretton Woods fixed exchange rate system etc. These initial disruptions were amplified by the very institutions (eg wage-index schemes) which had formerly encouraged the spread of mass production by stabilising demand and linking increases in productive capacity to increases in purchasing power. The markets story hypothesizes that mass markets for standardised goods have increasingly become more saturated. The pattern of demand has also become more volatile, fragmented and discerning, with increased emphasis on product differentiation as the basis for competition rather than merely price.

The cumulative effect of these conditions coupled with new advances in technology have, according to Piore and Sabel, favoured the emergence of an alternative industrial strategy: Flexible Specialisation. FS, in contrast to mass production aims to produce differentiated semi-customised goods as a part of:

> A strategy of permanent innovation: accommodation to ceaseless change rather than effort to control it. This strategy is based on flexible - multi-use - equipment; skilled workers and the creation through politics of an industrial community that

> restricts the form of competition to those favouring innovation. For these reasons the spread of flexible specialisation amounts to a revival of craft forms of production
> (Piore & Sabel,1984:17)

Implicit in the above definition are the convictions that competitive markets are not necessarily the optimal form of exchange and also that restrictions on competition do not necessarily impair productive efficiency. It is interesting to contrast the original narrow definition with the much expanded one in table 1. While retaining the original features of the initial formulation by Piore and Sabel, FS has come to encompass elements of marketing, production process flexibility and organisational management.

However, like mass production, FS is not without its own problem areas. As can be seen in the above definition of FS, constant incremental innovation is a conspicuous feature of this development path. The fundamental problem which FS has to confront is the maintenance of this technological dynamism. With technological stagnation, firms may come under mounting competitive pressure from mass producers or lower cost flexible specialists, and resort to cutting costs by "sweating" labour and using inferior materials. In the original formulation the relationship between sweated labour and technological dynamism is described as unidirectional: "Sweating...is the generic response of embattled firms...that cannot innovate. It is not a strategy peculiar to endangered flexible specialists" (1984:264). The question of how sweated labour impedes technological dynamism (which reverses the direction of causality) has not yet been resolved. Empirical evidence suggests that innovation and sweated labour can apparently coexist quite happily (Schmitz,1990).

Another influence which may curtail innovation is that specialised firms, once they have found a market niche, may not have an incentive to reduce production costs. Since their highly differentiated products may appeal only to a limited number of customers, cuts in production costs may not substantially expand the market.

Thus some sort of competition is essential. But cooperation is also vitally important:

Table 1: An expanded definition of FS

	FORDISM	FS
1] Production concept	Mass Production; internal economies of scale	Flexible automation; External economies of scope
2] Technology	Machines purpose built and dedicated RRR&D functionally separate and discontinuous	General purpose and adaptable machinery; importance of design
3] Products	Limited range of standardised products	Specialisation, product variety, niche markets
4] Inputs	Materials and energy intensive	Materials energy-saving; information intensive
5] Work process and skills	Fragmented and standardised tasks; strict division between mental and manual labour, semi-skilled workers	Open-ended tasks; closer integration of manual and mental tasks; core of multi-skilled workers linked to sub-contract and semi-skilled labour
6] Payment system	Rate for job; formalised pay bargaining	Payment for person; rising income for skilled core, more informal wage settlement
7] Organisation and management	Managerial hierarchies, centralisation, multi-divisional corporation	Flatter hierarchies; centralised information and planning systems, decentralised production, networks, subcontracting
8] Markets and customers	One way relations; mass advertising	Two way relations between customer and manufacturer; firm rather than product advertising
9] Suppliers	Arm's length, Stocks held just in case	Two way relations Stocks arrive just in time
10] Competition	Compete by full capacity and cost cutting	Compete by innovation

Source: Adapted from Phillimore, 1989

> Creating a successful industrial district involves establishing links of cooperation amongst firms so that they have the confidence to specialise - a prerequisite to increased productive efficiency in small firms. These links of cooperation are sustained by social norms that inhibit price and wage competition within the sector and channel competition toward product innovation, design leadership and specialty niches. Knowledge and ideas are shared across individual firms
> (Best, 1990: 237)

The creation of institutions capable of resolving both the macro and micro impediments to growth along this new technological trajectory is a major challenge facing FS. Piore and Sabel describe the four "faces" of FS as examples of institutions which successfully reconcile competition and cooperation. Two are large firm variants: first, federated groups of large loosely allied enterprises and second, internally decentralised workshops (eg those found in West Germany). Third, there is the small firm variant which is the main focus of this paper. It takes the form of regional conglomerates of independent SMEs in "industrial districts" eg the Third Italy. Finally there is a large firm-small firm hybrid i.e. the "solar" firms holding smaller enterprises in steady orbits (eg the Japanese *kanban* system of collaboration with an extensive, often local supplier network). Figure 1 attempts to situate these three forms of the large firm variant schematically within the literature. It also draws attention to the fact that each of these occur in backward versions (which possess some of the characteristics of FS but not certain crucial others) and leading edge versions (which conform most closely to the ideal type).

Criticisms of the FS paradigm centre on its methodology, definition, technological and institutional preconditions, its claims about changing market structure and its claims about mass production as well as objections to its ideological strategy[4]. Further discussion of the large firm variants and

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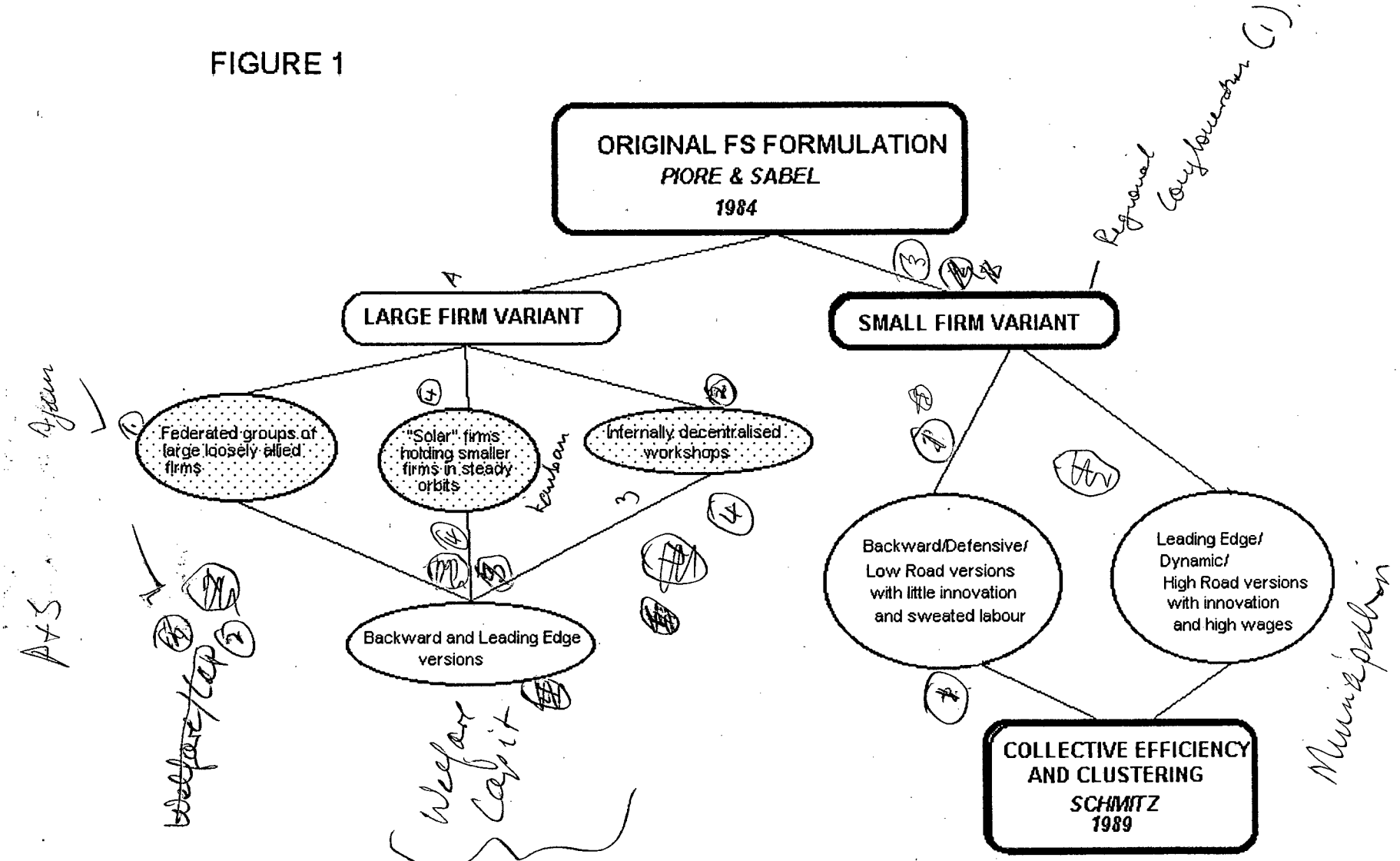
[4] While its originators see FS as a system predicated on intra- and inter-firm cooperation in pursuit of common interests, its detractors argue that it obscures the class struggle by nurturing the impression that the self-employed are all independent, profitmaking entrepreneurs. It has been accused of providing theoretical justification of "a political shift from a major concern with the experience of the underprivileged to a commitment to the health of markets" (Pollert,1987;58), legitimising unemployment and insecurity. The political overtones are conspicuous: "The political implications of the "post-industrial" embrace of the small business sector

FIGURE 1


ORIGINAL FS FORMULATION
PIORE & SABEL
1984
LARGE FIRM VARIANT
SMALL FIRM VARIANT
Federated groups of large loosely allied firms
"Solar" firms holding smaller firms in steady orbits
Internally decentralised workshops
Backward and Leading Edge versions
Backward/Defensive/ Low Road versions with little innovation and sweated labour
Leading Edge/ Dynamic/ High Road versions with innovation and high wages
COLLECTIVE EFFICIENCY AND CLUSTERING
SCHMITZ
1989

the criticisms levelled specifically at them are unfortunately beyond the scope of the paper[5]. Those criticisms which pertain directly to the small firm variant will however be discussed in greater detail later. The purpose of this section was to contextualise the small firm variant within the larger FS literature which has proliferated in recent years. In the following section we probe this branch of the literature in greater detail.

THE SMALL FIRM VARIANT

The FS approach attempted to demonstrate that small-scale industrialisation could indeed be a viable alternative to mass production. This viewpoint holds that the size of small businesses does not pose an insuperable obstacle to their competitiveness since small business could take advantage of new technology and market conditions to usher in a resurgence of the craft paradigm. This would offer workers more control over the labour process with renewed emphasis on broadly based skills. The FS thesis argues forcefully that small-scale industrial activity is not inevitably destined to remain at the periphery of the economy, but is capable of sustained dynamic growth, export performance and employment generation. Groups of small firms acting in concert can, it claims, achieve levels of efficiency which are virtually unattainable by the individual small firm.

In the small firm variant, FS results from the physical clustering of firms in the same sector and a strong interfirm division of labour - so that geographically and/or sectorally dispersed firms would *not* constitute this form of industrial organisation.

The much vaunted example of this model is the "Third Italy" i.e. Emilia-Romagna and Tuscany in central Italy. Here,

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reveal themselves in their convergence with enterprise capitalism's enthusiasm for deregulation" (Pollert,1988:66)

[5] These issues are reviewed in Ajam (1993). See also Williams et al (1987), Pollert (1988), Best (1990), Asheim (1992), Murray (1987), Amin (1989), Phillimore (1989) Rainnie (1991), Jessop (1992), Morris (1992) and Curry (1993)

traditional industries have continued to play a significant role in the manufacturing economy, accounting for 46.2% of total employment in this sector in 1981 (Amin,1989:20). These traditional industries (eg furniture in Pesaro, ceramics in Sassuolo and knitwear in Modena) have infused age old craft traditions with computer based technologies. Between 1971 and 1981, small and medium sized firms (less than 99 employees) increased in number by 21% and by 28.5% in employment. These regions have also been export competitive, Emilia alone accounting for 9.4% of Italian exports in 1980 (Brusco,1982; Amin,1989).

Emilia also had one of the highest per capita incomes in Italy, yet over one third of the workforce is self-employed and 90% of all manufacturing firms employ less than 99 employees (Best, 1990: 204). Other examples include Jutland in Denmark, and Baden-Wurttemburg in South Germany.

Much of the recent work on the small enterprise version of FS has built on Schmitz's selective and critical reading of Piore and Sabel's early conceptualisation. In contrast to much of the informal sector literature which stresses the individual small firm's competitiveness derived from low labour costs in a deregulated environment, Schmitz argues that competitiveness cannot be achieved by individual small firms. Rather, it is a function of what he terms collective efficiency. Thus "the viability of small firms depends not just on their individual performance, but critically on the emergence of clusters of firms which give rise to economies of agglomeration" (1989:21). The small firm variant may be described as:

> Craft production in the shape of clusters of small firms producing a wide range of products for highly differentiated markets, constantly changing their production in response to changing tastes; they use flexible and widely applicable technology in production (versatile and general purpose machines and equipment; at the level of micro-regulation, the combination of competition with cooperation is the trigger for constant innovation.
>
> (Lyberaki,1991:44)

The above definition clearly illustrates that collective efficiency arises from the combined ability of a group of firms to respond to market changes and to innovate. This in

turn is stimulated by sectoral and spatial conglomeration. Firms compete with each other but also complement each other through vertical interfirm links and horizontal collaboration. These networks of small firms, by capturing external economies of scale and economies of agglomeration are able to achieve efficiency and flexibility which the single firm would have difficulty in attaining.[6]

The idea of collective efficiency is hardly novel to industrial economics, having its intellectual roots in Alfred Marshall's (1891) analysis of British industrial districts. As Best points out

> The Marshallian notion of the industrial district goes some way to describing a productive system of small firms. But the source of stability of small firms in the Third Italy is based on more than specialisation and external economies of scale. Successful industrial districts are in a state of continuous restructuring as firms seek to remain competitive in a world of rapid technological change and intense international competition. For the competitive edge comes from specialisation by phase within the product chain and, second, flexibility that results from the capacity of the micro production units along the production chain as technology advances and market conditions change. To capture these opportunities an industrial district must be collectively entrepreneurial.
>
> (Best, 1990: 234)

A prominent element in Best's description are the dense transactional relationships which exist within communities of firms. These firms are typically engaged in forward and backward linked activities which contribute to the manufacture of a family of related products. In the ideal typical small firm model of FS, these relationships in vertically disaggregated production chains would be defined by relatively short-term contracts, with no single firm in a position of permanent dominance. The production process is vertically disaggregated and individual firms (or, in the case of the large firm variant, units within large firms) specialise in a particular production phase. While general purpose tools and

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[6] For a detailed discussion of internal and external economies, and their role in promoting vertical disintegration and the inter-firm (i.e. social) division of labour, see appendix 1. While economies of scale and scope are essentially quantitative in nature, economies of agglomeration represent the more qualitative attributes of innovative industrial districts. These pertain to "factors concerning the quality of the social milieu" (Asheim, 1992:54) which tend to lower transaction costs, facilitate skills transmission and foster innovation through an institutional capacity for continual learning and adjustment.

multiskilled labour provide intra-firm flexibility, the productive system of firm networks is also flexible due to "the capacity to continually reshape the production process through the rearrangement of its components" (Piore & Sabel,1984:269).

Schmitz (1992) does however stress that the nature of inter-firm relationships (where firms purchase products or services through the market or through subcontracting) may range from exploitation to collaboration. The scope for conflict is clearly greater at the horizontal level where producers are in direct competition for orders. Yet competition does not preclude joint action, especially on precompetitive problems eg. the provision of sites and services etc.

The coexistence of technologically backward sweatshops along side highly innovative and dynamically flexible small businesses, has prompted Spath (1992) and others to argue that it is not the size of the firm per se which is crucial to their performance, rather it is their relations with other firms. As Sengenberger and Pyke so aptly express it "The big problem for small firms is not being small but being lonely" (1991:8).

However, while the physical and sectoral agglomeration of firms and the existence of linkages are necessary for collective efficiency, these factors are not sufficient to guarantee it. The *quality* of these linkages are of paramount importance. These are however shaped by the institutions peculiar to the productive economy in a particular locality. Institutions such as trade associations, unions, guilds, cooperatives (for purchasing of inputs, marketing and securing credit), and the Italian municipal government (in providing industrial infrastructure), all facilitate the recombination of productive enterprises. But no single institution formally links productive units; cohesion derives from religious, ethnic or political ties[7].

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[7] It is interesting to note that these clusters exhibit all the main properties of "complex adaptive systems" (Waldrop,1992:145)."It is a network of many "agents" in parallel .... Each agent finds itself in an environment produced its interactions with the other agents in the system. It is

The experience of the Third Italy suggests that community institutions may function as enforcement mechanisms in business relations that deter free rider[8] and other opportunistic behaviors[9] (through the application of social sanction). The fusion of the social and business spheres can lead to the "economical supply of collective goods by creating safeguards against the erosion of individual responsibility" (Best,1990:240). The community institutionalisation of trust, through providing an effective monitoring system, which in a pure market relationship would prove prohibitively costly, can thus lower transaction costs. An instance of this would be where a subcontractor could include a proportion of defective parts which can only be detected after the final product has been in use for some time. Because the latent defects are not immediately detectable, monitoring costs would clearly be high. Institutionalised trust, by obviating the need for stringent monitoring, thus lowers transaction costs substantially. This together with other factors (such as reduced transport costs due to physical proximity, lower prices of inputs) etc promote vertical disintegration by expediting the process whereby the needs of one firm are matched to the special competencies of other firms in the network (Scott,1988; Scott & Storper,1992)

It is also asserted that "the agglomeration of industry in a district generates, in time, an aptitude for industrial work, and this aptitude communicates itself to most of the

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constantly acting and reacting to what other agents are doing, control of the system is highly dispersed.... There are several levels of organisation with agents at one level serving as the building blocks for agents at a higher level ....Complex adaptive systems are constantly revising and rearranging their blocks as they gain experience. Every complex adaptive system anticipates the future every complex system is constantly making predictions based on its various models of the world ... complex systems typically have many niches, each one of which can be exploited by an agent adapted to fill that niche" (ibid). The comparison with enterprise clusters is immediate.

[8] a good example is the public good nature of the informational flows which foster innovation

[9] For instance, clustered manufacturers, as a group, share a common interest in stabilising wages and working conditions. Individually, each may be tempted to cheat on the standard. No producer can however afford to adhere to a standard if competing firms do not - a variation on the prisoners' dilemma game.

people who live in the district " (Bellandi,1989:143). While a general "industrial atmosphere" can increase the probability of small firms acquiring the requisite skills to support the imitation of innovative techniques invented elsewhere and diffusion of innovation, it is important to note that "such processes are strongly conditioned by the spatial proximity and cultural homogeneity of industrial districts" (Asheim,1992:54).

The geographical proximity in agglomerations not only serve to diffuse technical know-how rapidly, but may also inspire the creation of ideas through a social process of information exchange and discussion, which stimulates product and process innovation through gradual but continuous modification. For instance, when one firm requires a specialised input or equipment, this might have to be met by innovative activity from its supplier firms within the network (Scott & Storper,1992:18).

Thus inter-firm interaction in a process of mutual adjustment facilitates learning, and expands their expertise and capabilities. While it is relatively easy to capture external economies through the establishment of spatially concentrated production complexes, the FS thesis would submit that the replication of small firm industrial districts centres on the possibility that agglomeration economies could be deliberately nurtured.

Industrial Districts

The FS approach recommends that policy makers focus their attention on groups or clusters of small firms within a wider sociopolitical context, rather than concentrating on the viability and performance of the individual, isolated firm. The current preoccupation with industrial districts as a vehicle for small-scale industrialisation within a regional development context has initiated a whole new research agenda.

Sengenberger and Pyke's (1991) investigation of innovative European industrial districts indicates that the most salient feature is their organisation. Their economic

success stems not from advantageous access to low cost factors of production (i.e. cheap labour, land or capital), but rather from a particularly effective social and economic organisation based on small firms (i.e. a dynamic form of the small firm variant of FS). The challenge is to find out whether these organisational principles are reproducible elsewhere and adaptable to local conditions.

The specific organisational features (common to the small firm variant) which Sengenberger and Pyke (1991) identify are:

* The existence of strong *networks* of largely small firms, which through their linkages of specialisation and subcontracting, induce collective efficiency through capturing external economies of scope and scale.
* These networks belong to the *same industrial sector* and encompass all the processes and services along the production chain of a family of products (eg ceramic goods or knitted clothing)
* Industrial districts are *geographically bounded* - the proximity encouraging synergistic effects deriving from social cohesion and collaboration (1991:2)
* Another important characteristic of these industrial district seems to be *inter-firm cooperation and competition,* and the existence of institutions and ideologies which sustain this (1991:13).
* The pervasiveness of an *entrepreneurial dynamism* is another conspicuous attribute (1991:13). This appears to flourish under favourable conditions which include:
  - ease of formation of new firms (eg. access to capital, premises, etc; absence of overly restrictive legal formalities and "red tape")
  - protection from domination and dependency on large firms which allows the development of independent design capabilities and ease of access to final markets.
  - sharing of managerial tasks between workers and the entrepreneur creates the opportunity to learn how to run a business whilst "on the job". In the Third Italy, small business people are regarded as socially adjacent to craftworkers, and senior employees in small and large businesses often set up their own establishments.
  - social norms which regard the ambition to establish one's own business as "normal" and culturally acceptable.
  - exit costs: statistical evidence from Italy indicates a sizeable volume of movement between the status of dependent employee and entrepreneur. Also bankruptcy tends to result in the reintegration of workers and employees into other firms in the districts without social stigma
* The most successful industrial districts compete on a *range*

of dimensions, not just price (1991:3)
* *Flexibility* emerging from the recombination of specialised production units is also significant. Pyke and Sengenberger see this flexibility as assuming either an active form (i.e "the ability to exploit market niches and quickly respond to orders, based on a skilled and polyvalent labour force") or a passive form (i.e. "to submit to outside pressures from customers, and to accept cutbacks, and to pass on the flexibility requirements of the market to the workforce in a coercive manner; through expanding and retrenching productive volume, forcing wage concessions, making "flexible" use of short-time and casual employment" (1991: 11)) The passive form of flexibility is associated with, what Pyke and Sengenberger term "low road restructuring". In this instance, cost-cutting is seen as boosting profitability, productivity and job creation.

Also institutions and regulation of competition are seen as strictures to be minimised. However, "the improvement it yields for competitive performance, if there is one, is frequently short-lived. Mostly as it turns out, it accents the malaise" (1991:9). Instead they advocate a "high road" version arising from constructive competition "based on efficiency enhancement and innovation; that is through economic gains which make wage gains and improvements in social conditions possible" (1991:10). They also favour labour standards to curb wage competition.
* The existence of *trust and cooperation* where business and social communities are integrated so that economic behaviour and standards are influenced by community norms and expectations, and reflected in business practice. Trust in business relations attenuates the fear of taking risks. It allows entrepreneurs to invest heavily on the understanding that other community members will buy the product of the investment rather than take their custom elsewhere. It also facilitates the dissemination of product-related information and design ideas.
* The availability of a *trained, adaptable workforce* is absolutely essential to the organisation of successful industrial districts. The widespread expertise might be transmitted from parent to child or colleague to colleague such that it forms part of a long-standing cultural heritage of the region as in the Third Italy, or expertise may be provided by technical schools and craft colleges or even larger firms. The authors view the devising of mechanisms that "remove the age-old fear of unemployment without imposing total sclerosis on the system" as one of the greatest challenges and suggest that "at the heart of a new organisation might be a social security system which effectively deals with a variety of non-standard working patterns, encourages change by not penalising workers for (flexible) job loss, recognises that "work takes place in the home as well as the factory " (1991: 20)
* *Strong interest groups*: Small firms need to have a political voice of their own to represent their specific interests and these, together with self-help organisations and effective regional and municipal authorities, could back up such

industrial organisations (1991:21).

Sengenberger and Pyke believe that the organisational principles described above could be adapted to other local economies, through encouraging political and social consensus and collaboration in an atmosphere of trust. Therefore regions should seriously consider "promoting endogenous development from local resources and under basically local control" (Sengenberger & Pyke,1991:22).

It is exactly this note of optimism in the future dynamism of locally embedded small-scale manufacture which has elicited many critical challenges. In the following section, some of the principle areas of critique are briefly examined.

CRITICISMS OF THE SMALL FIRM VARIANT

The FS suggestion that the small firm variant could constitute a feasible development path, has meet with extensive scepticism. Controversy has centred around:

Technological preconditions: Several critics aver that Piore and Sabel's confidence in the potential of computer technology to revolutionise the economies of batch production and spur on design innovation is misplaced. Their allusion to process flexibility without physical adjustment of equipment but through "simply reprogramming" is over optimistic, bearing in mind that software is the major cost component of automated manufacture:

> "Computer hardware is indeed powerful, plentiful and apparently cheap. But in practice computer *systems* are expensive to install and maintain, complex, fragile, insecure and vulnerable to disruption, human error and chicanery. They add cost as often as value. In many cases computers in manufacturing may have done more harm than good"
>
> (Caulkin, 1989: 85)

In addition, small firms may not have the financial wherewithal or the expertise available to exploit computer technology fully (Williams et al, 1987: 429-430, Pollert, 1988: 161). This is especially true in LDCs.

Institutional preconditions: As Amin (1989:32) points out, traditions such as "the family-based and petty bourgeois entrepreneurial culture, community based forms of cooperation

and consensus, and municipal mercantilist institutions and structures are historically sedimented" in certain areas. These cultural, religious or political ties may be region specific and thus virtually impossible to transfer elsewhere. Unless alternative institutions could be evolved which perform similar functions, FS as a normative concept is lacking in substance.

Backward versions: The vast majority of the sceptics doubt that the dynamic innovative small firm network offering high wages and stimulating a high degree of skills formation would necessarily be a prominent feature of FS. They contend that backward versions (involving labour intensification, long hours, low pay, poor work conditions and an increased reliance on dependent subcontractors and home works) would tend to predominate[10]. In an article entitled "Flexible specialisation and small firms in Italy: myths and realities", Amin (1989: 23) adduces evidence in support of this: according to large scale survey data for 1983 collated by the Italian National Institute of Statistics, the hourly wage rates of manual workers were *50% lower* in small firms than in large firms. Also, in 1983, manual workers in smaller firms (especially under 50 employees) worked an average of 12% more hours than those in large firms, with this gap widening by 4% in 1985.

In contrast to Piore and Sabel's interpretation of the social relations of production in regional economies as a relatively harmonious return to artisanal and craft production, Murray asserts that:

> "Racial, gender and skill divisions are essential to the operation of this economic model. The quality craft-work that Sabel discovers is work for middle-aged Emilian men. Semi-skilled assembly work, plastic moulding and wiring work is carried out by women, while heavy foundry and forging work is done by southern Italian and North African workers."
>
> (Murray,1987:88)

He therefore argues that for the vast majority of workers a shift towards what he sees as a fragmented, informal and casual cottage industry portends a return to "the worst

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[10] See Phillimore, 1989 ; Thompson, 1989 ; Tomaney, 1990

excesses of industrial capitalism" (op. cit.).

Dual labour market: Pollert (1987: 68) considers the FS analysis to be based on dual labour market underpinnings as a model of dynamic equilibrium: between the "core" of skilled workers providing functional (labour process) flexibility, and a "periphery" supplying numeric (labour market) flexibility. The question then arises as to whether this dualistic nature is endemic or merely transitory. Piore and Sabel do concede that initially the Italian small business sector was analogous to "sweatshops", but maintain that dependent subcontractors used their collective capacities to realise process and product innovations which allowed them increasingly independent access to markets.

Policy: Research on the small-scale industry in Greece (Lyberaki, 1991), has confirmed the presence of features which do conform to the FS paradigm: extensive subcontracting and dense transactional relations among small independent firms; general purpose machinery; clustering of small firms into industrial districts. Yet two crucial ingredients are missing: specialisation and innovation. The resultant cut-throat competition discouraged cooperation, investment in computer technology, places downward pressure on wages and has a negative impact on product quality. Thus devoting scarce resources to encourage the propagation of the small business variant of FS could very well serve merely to replicate the unpleasant features of the Emilian model.

Ideological objections also abound. Criticisms directed at the small firm variant of FS have also tended to come from neomarxist analysts who dispute the implication that restructuring at a global level[11] has definite ramifications for local economies, necessitating at local level the implementation of strategies to promote a form of highly

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[11] These changes to the international economy over the past two decades are described by Hirst & Zeitlin (1991:1) as "rapid and radical changes in production technology and industrial organisation, a major restructuring of world markets, and consequent large-scale changes at the international, national and regional levels"

socially regulated local micro-capitalism. For example, Rainnie cautions that:

> "...they [small firms] will not enter the frame as primary status suppliers. Instead where they survive at all, they will occupy uncertain and unpredictable positions further down the supplier chain."
>
> (Rainnie,1993:69)

This perspective is not unlike that of Petty Commodity Production theory (Le Brun & Gerry,1975), which emphasises the relations of subordination and domination between small and large firms. Linkages are viewed as channels for exploitation and appropriation. Large firms use their unequal economic power to coerce smaller business into selling at disadvantageous prices and terms, passing the risk of product market fluctuations onto smaller subcontractors and lowering labour costs, since subcontracting allows them to avoid social security expenditure and acceding to worker demands for job security. Politically, the alliance between big business and the state in pursuit of congruent goals results in small firms facing increased barriers to markets, eg strict licensing procedures or excessively stringent quality standards etc. This relationship exists not only between large and smaller firms, but among smaller firms themselves:

> "Divisions and distinctions between the petty producer and his workers, or other petty producers which he may exploit, are blurred not only by vertical clientele relationships and sometimes by ethnic (affinity) relationships but also by the absence of difference in life style, living conditions, clothing, behaviour, etc. The successful petty producer often works with his labourers under the same condition and shares their lifestyle. Even where conditions of extreme exploitation prevail, the petty producer will not be viewed as a villain as long as the socio-cultural consensus is maintained."
>
> (Lewin,1985:126)

To sum up: while there seems to be a general consensus in the literature that the clustering of small firms and inter-firm division of labour are the most distinctive features of the small variant model of FS, many ambiguities still need to be resolved. Some points of controversy are: the quality of the linkages between firms, especially the tension between subcontracting as opportunities for cooperation and learning and subcontracting as subordination; the dynamic between sweated labour and innovation and the extent to which this is associated with the emergence of leading edge and backward

versions of FS. Also, as Smyth (1989) points out: concentrating on collective productive activity and entrepreneurship and collective efficiency diverts attention from the reality that benefits from collaboration accrue to individual firms. Firms which secure for themselves a dominant position within a cluster may derive the most benefits, and this would have distributional consequences.

Since most of the literature and empirical work cited above deal primarily with developed country experiences, a very pertinent question arises: What relevance (if any at all) does the small firm variant of FS have for LDCs?

FS AND DEVELOPING COUNTRIES

Despite the optimism of its advocates, the attempted introduction of FS to Third World countries is bound to encounter formidable technological and skills obstacles. The requisite institutional mechanisms for cooperation and competition are likely to prove even more intractable. Much more analytical and empirical work has to be done on the FS paradigm to determine the extent to which the European flexibly specialised industrial districts have historically evolved spontaneously from regionally embedded socio-cultural institutions, or resulted from purposive action on behalf of public and private structures eg local governments etc. If the latter weighs more heavily, then clearly there could be greater scope for replicating these successes in LDC settings. If, however, the influence of social institutions is stronger than the state in LDCs, then it becomes a question of whether the existing institutions promote or retard the emergence of FS. In the arch case of the small firm model in Africa (i.e. Kumasi, Ghana), public intervention played virtually no role (Schmitz,1989). The current state of the literature is undecided[11], and this has been identified as an area for future research.

The key issue is whether agglomeration economies can be

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[11] see Brusco & Righi (1989); Jones & Saren (1990); Smyth (1991), Schmitz (1990,1992); Asheim (1992)

generate through institutional intervention. Pyke and Sengenberger (1990:5) suggest that `the question of replicability takes on a different light if the focus is put not so much on the specific character of these socio-economic institutions, but on the functions they perform." The implication is that while the social institutions in places like the Third Italy may not be able to be reproduced exactly elsewhere, local institutions in LDCs may be induced to perform similar functions. The European experience suggests that public and private institutions do play a crucial support role, after a critical mass of industrial activity is established. Stressing that a climate of social consensus and credibility of local government are absolute prerequisites for the success of local industrial policies, Brusco and Righi (1989) describe the role of institutional involvement in the Third Italy: provision of Industrial parks as planned external economies; the creation of `real' (as opposed to financial) service centres directed towards supplying technological and market information to industrial districts specialising in certain sectors; as well as loan guarantee consortia which also negotiate lower interest rates on behalf of their members. The Confederazione Nazionale dell' Artigiano, a national confederation of Italian artisans with 340 000 member firms, does not only lobby the government on their behalf but also provides collective services where economies of scale are important (eg export marketing, accounting services, etc). In addition, the communist-governed municipalities tended to be pursue consensus and alliances with small business people (Best, 1990: 209). In the Third Italy, the distinct social and political identity of artisans and widespread membership in representative local associations, affords them a platform to articulate their needs and force unions and political authorities to deal directly with their interests.[12]

Contrast this environment to that found in most LDCs where small businesses are frequently confronted with

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[12] Best (1990); Jones & Saren (1990) and Saxenian (1991)

seriously distorted, even hostile, legal and regulatory environments. Administrative and institutional settings are commonly discriminatory and often impede rather than support small business development. Government macro-policy programs, credit policies, investment incentives, trade regulations, licensing, etc have essentially been biased toward large firms, and discriminated against innovation and competition by small firms[13]. This has also been a feature of the South African institutional environment[14].

Another aspect is the sheer amount of red tape demanded by Third World bureaucracies for compliance with municipal by-laws, health and environmental regulations etc. Those necessary to gain access to eg credit and export incentives often exceed the capabilities of small firms. The centralisation of administration, resources and decision-making in LDCs like Brazil, often impose severe staff, resource and decision-making constraints on regional and local government. In addition, most regional and local authorities would not reap the benefits of economic growth, since taxation generated in the area are generally transferred to the central administration. In addition, small entrepreneurs have , by and large, not been integrated into established interest groups. (Spath, 1992). While by no means exhaustive, the few factors enumerated above do serve to highlight the fortuitous environment that favoured the emergence of FS in developed countries. Conversely, they also give some indication of the obstacles small firms in LDCs face.

While the obstacles to FS are considerable, the problems of mass production in LDCs may be even more pronounced. Small internal markets and highly skewed income distributions meant that mass production was not underpinned by mass consumption. Inflexible imported technologies subjected large local producers to the vicissitudes of the export market, transport and customs delays and forex shortages (Murray, 1992). While

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[13] Anderson,1982; Page & Steel,1984; Eades,1985 and Spath,1992

[14] Beavon,1989; Rogerson,1991; Dewar & Watson,1991 and World Bank,1993

acknowledging the manifold problems with FS and the need for further theoretical and empirical research, many of the champions of the FS thesis continue to affirm its relevance for small-scale industry in LDCs. Schmitz (1990) contends that, even more than in developed countries, the ability of LDCs to adjust to disruptive circumstances is decisive. Since FS, almost by definition, should be characterised by flexibility, this productive organisational system may be less vulnerable than mass production to the periodic crises experienced by most LDCs (Schmitz,1989).

In the 70s and 80s when LDC economies were facing the double dilemma of escalating debt servicing obligations and diminished export revenues, small and medium sized firms often displayed performances superior to their larger counterparts eg in Greece, Peru, Ecuador and the celebrated case of Kumasi (Ghana) which, despite negative growth rates in the rest of Ghana, displayed a resilient growth and incipient collective efficiency.

While existing small-scale industry in LDCs may have proven more flexible than larger ones in their response to new internal and even external markets as well as coping with interruptions in the supply of inputs, they are often trapped in low-innovation low-profit growth paths, Leaving it to market forces is not likely to ameliorate the situation. Therefore, Rasmussen et al (1992) argue that new forms of industrial organisation are required and while they do not advocate the uncritical transfer of models such as the small firm variant of FS, they suggest that these models may provide valuable clues about such organisational patterns.

While small firms in European industrial districts often employ advanced technologies, the emergence of collective efficiency is not absolutely conditional on the use of hi-tech, and is therefore equally relevant for nascent LDC industrialisation. The main point, which Schmitz (1989) tries to communicate, is not that technology necessarily be locally produced, rather that the local availability of equipment, spare parts and repair services from machinery manufacturers

to small firms is essential for small enterprise development. Such access and choice tends to arise only with the sectoral agglomeration of clusters of firms where "vertical and horizontal links between clustering firms induce the diffusion of knowledge and skills, reduce technological discontinuities and increase the capability to respond to changes in the market" (Schmitz, 1992: 66).

Schmitz (1990) also extends the original formulation of FS by expanding upon the role of surplus labour, which is completely disregarded in the work of Piore and Sabel. He concludes that the sheer size of the labour surplus in LDCs tends to detract from innovation, resulting in the inclination of small firms to exploit labour to achieve flexibility. While maintaining that the dynamic in labour surplus LDCs tends to low wage-low technology-low quality, he advises caution in interpreting the empirical data. This data shows evidence of both large labour surpluses coupled with retarded innovation and gross exploitation of especially female flexible outworkers (eg the hammock industry in North East Brazil), and also instances of labour surpluses *and* innovation (eg the knitting and clothing industry in Petropolis and Juiz de Fora, Brazil).

The effect of surplus labour influences wages and working conditions directly, through wages being bid down in intense competition. It also operates indirectly. Since wage employment offers little opportunity for social and economic advancement, the ambition of skilled workers is often to set up their own businesses. This often entails entering an ever growing and highly competitive subcontracting market. Their capital may be sufficient for equipment acquisition, but rarely extends to financing the purchase of raw materials. They often end up as disguised wage labour in precarious subcontracting relationships with the more established firms. This is exacerbated by the fact that, unlike in developed countries, social security and unemployment benefits are virtually nonexistent in LDCs and therefore cannot function as an effective floor to wage competition.

Having completed a review of the theoretical aspects of the FS paradigm, a synopsis of empirical work done specifically on the furniture sector will be presented.

CASE STUDIES OF THE FURNITURE SECTOR

Quite a number of case studies have been conducted in various countries through the lens of the FS paradigm. These include both developed countries like Italy, Germany and Denmark, and in recent years LDCs as well[15]. In this section the focus is on the research done in the furniture sector, from the FS perspective.

1] THE FURNITURE DISTRICTS OF SALLING, WEST JUTLAND, DENMARK

One orthodox conceptualisation of industrialisation sees it as a process of moving from agriculturally based economic activities to the more traditional industries (eg furniture, clothing and footwear), ultimately culminating in knowledge and technology intensive forms of manufacturing. From this viewpoint, it is surprising that traditional industries have not completely migrated from the high wage industrial countries to the Third World with its cheaper labour.

Contrary to this intuition, traditional industries have flourished in countries like Italy and Denmark in the postwar period. This vitality is clearly evident in Kristensen's description of the Danish furniture industry:

> Furniture alone has been a particularly strong growth industry. Measured by volume of production, the furniture industry increased by more than any other in Denmark during the first half of the 1980s. While the index of employment for total manufacturing grew from 100 to 101.3 between 1980 and 1985, that of the wood and furniture industry grew to 116.1 during the same period.
>
> (Kristensen,1992:144)

While the industry is not confined to any single Danish county, there are particularly strong clusters in Viborg, Rinkobing and Ribe counties. The gradual development of these

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[15] For example Ghana (Schmitz,1990; Damson,1992), Zimbabwe (Rasmussen,1992), Mexico (Wilson,1992), Pakistan (Nadvi,1992), Tanzania (Aeroe,1992), Sudan (Hansohm,1992), Burkina Faso (Van Dyke,1992), Indonesia (Smyth,1992) and Kenya (Sverrison,1992)

clusters of small firms can be traced back to the 1920s. In the area of Salling is a system of small towns which even today have small populations of only 1000 and 1500 inhabitants. Yet each has a cluster of 7 to 11 furniture makers or woodworkers together with small engineering firms.

Kristensen notes that family and master-apprentice relations have played an important role as development mechanisms (1992:144). Furthermore he discusses several organisational traits which might have contributed to the district's success:

1) The industry is *dominated by small, locally owned firms*: 55% of employment in the furniture industry nationwide is within enterprises with fewer than 50 employees (compared with the manufacturing industry average of 55% of employment falling within enterprises with fewer than 200 employees.

2) There is a strong *tradition of entrepreneurship and self-employment*, which can be traced back to feudal times when farmers destroyed large landholdings by buying their farms using income earned through an export trade in knitwear, cattle and other goods. The survival of the small free farmers was achieved through cooperation: first through the community of villages and later through the establishment of cooperative institutions. Apprentices and workers not only acquire the skills typically used in small batch production but also the management skills in running small firms and can aspire to establish their own establishment.

3) The district seems to have pursued *strategies aimed at high quality, design consciousness and the export market*. Between 1973 and 1984, the furniture industry increased exports from an index of 100 to an index of 667. This represented a growth in exports which was twice that of manufacturing as a whole. With 80% of its production exported, it is clear that the Danish Furniture industry is highly export orientated (Kristensen,1992:146)

4) Within the industrial district, the individual small firm is integrated into *a decentralised structure of small specialised firms* which collectively are able to respond

flexibly to new fashion and technical specialisation. Collective (external) economies of scale seems to have been engendered by the increasing use of specialty equipment, supplemented recently by computerisation.

4) Kristensen contends that these characteristics detailed above are greatly enhanced by the *preservation of a craft tradition and capability*:

> Perhaps more than any other factor, it has been the maintenance of broadly trained workers, capable of redirecting their skills into new avenues dictated by the market, and with the entrepreneurial desire to do so, at a time when flexible organisation and flexible capabilities are of paramount importance, that explains the success of Danish industrial districts.
>
> (Kristensen,1992:148)

The level of craft-skills in the furniture industry is very high: 60% of male employment are skilled workers. The proportion of white collar employees is low and the share of those with an academic education is half that of white collar workers in the rest of the industry. Technicians with a background as apprentices are predominant (Kristensen, 1992:148). In fact this apprenticeship mechanism seems to be one of the key driving forces behind the genesis of industrial districts in West Jutland:

> ... it is in respect of education and educational institutions that political activity is involved in reproducing the "district" on an advanced scale. So today, with so many furniture firms already established, the reproduction on an extended scale of the district character of Salling is beyond doubt. The incremental nature of the way new firms are established both adds new complexity and makes it easier for newcomers to find specialised niches, thereby creating an expanding system in which individuals can take all the gradual steps necessary for education as entrepreneurs within the furniture industry.
>
> (Kristensen,1992:148)

6) The district has a *well developed local service infrastructure*. Many furniture manufacturers in Salling have traditionally first used their skills as carpenters and cabinetmakers to start-up in the building and construction trade, often obtaining finance from small local savings banks. During times of recession, many businesses turn to using their tools and premises for furniture production. The existence of other furniture manufacturers within these communities provide not only models for imitation, but also potential customers in a vertically disaggregated production chain.

7) *Close family ties* together with craft relations play an important roles since these small firms are typically family-owned and managed:

> Durup is illustrative as a case of the furniture industry. The nine furniture enterprises of Durup were not created overnight or over the last decade. Theirs is a story of fathers, brothers and sons, masters and apprentices, and involves the development of a genealogical tree where craft and family relations have become interwoven into 70 years of business history, in which enterprises were developed to compensate for seasonal and economic cycles .....
>
> (Kristensen,1992:149)

8) Both *competitive and cooperative philosophies and practices exist* side by side. While most furniture manufacturers have a speciality which they sell to the final market, they also carry out subcontracting work for other firms in the area. This often accounts for the main proportion of turnover. Nevertheless, the general sentiment is typically against subcontracting alone for fear of becoming too dependent.

While much of the cooperation takes place on an informal basis, few manufacturers believe it is possible to cooperate by formal agreement " ... as stories of how such agreements have been broken and others' customers enticed away are part of the often-repeated myths of the area. Deliberate copying of "competitors" products is another" (Kristensen,1992,150).

All firms try to maximise their exposure to the final market as much as possible, competing among each other for orders. However, once the order has been placed, the winning firm often has to use as subcontractors some of the firms which had competed against it, in order to be able to deliver the promised goods on time. Other forms of cooperation also include many small furniture producers participating as parts of groups in trade fairs and a wide spread tradition of longer-term agreements between firms whereby each agrees to adhere to a certain speciality.

9) People's *craft identity* is important for *linking* individuals and firms to the larger national labour market, the craft educational system and other enterprises throughout the country. For instance, the experience of craftworkers (as apprentices and journeymen or at the technical schools) outside their own regions results in a broadening of horizons

and increased contacts.

10) The *engineering and metalworking industry* plays an essential role in the proper functioning of small firm clusters in these districts. Kristensen (1992:154) reports that entrepreneurs often attribute their satisfaction with their locality to easy access to small machine and engineering shops in which they can have new machinery constructed at short notice. The development of new machines and machine repair services are facilitated since prototypes can be produced quickly by one of the many specialised producers. This of course encourages branching out into new product lines.

11) Another prominent feature is *industrial relations and wage setting procedures*. These districts have experienced fewer strikes and lower rates of absenteeism than the rest of the country:

> On the one hand, one has high trust relations, high autonomy in the performance of jobs, and an ease of communication between employer and employees who are knitted together in close overlapping family and neighbourly relationships. On the other, one has somewhat narrow procedures of labour recruitment through personal ties, tightly drawn restrictions on behaviour and very strict discipline. for better or for worse, such a system of industrial relations is ideal for flexible specialisation
> (Kristensen,1992:156)

Kristensen does acknowledge that such a system could easily become very exploitative. However, in the Danish case, this is counterbalanced by a high rate of trade union organisation - just under 80% of all workers. This high rate of unionisation in West Jutland coupled with large and small firms not receiving differential treatment by the law, mitigates against the adoption of production techniques based on cheap labour.

Since about 1985, the wage system has changed from one based on individual pay at piece work rates to a system of hourly wages with group bonuses, permitting wages to exceed the national limit[16] while promoting trust among workers and employers.

Currently these industrial districts received little

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[16] In 1985 the Danish government launched an incomes policy to hold wage increases down to a 2% limit. They received a promise from national employers associations to enforce it by fining members who exceeded the limit (Kristensen,1992:157)

2] THE EMERGENT FURNITURE DISTRICT OF VALLES ORIENTAL, CATALONIA, SPAIN

The institutional context that surrounds the development of the small firm industrial districts in Spain differs sharply from that of Denmark. Yet the movement from the authoritarian Franco regime to a more democratic politically decentralised system is more analogous to the South African context. For South Africa which is undergoing a broadly similar transformation, there is an opportunity to learn from the Spanish experience.

While certain unions and business associations were active during the authoritarian period, they were legally established only in the late 1970s (Benton,1992:48). Thus these organisations' support base among many constituencies is still very weak. Both union and employer groups have very weak representation among small firms and are in highly fragmented sectors. In addition both sets of organisations channelled their energies into consolidating national bargaining positions, sometimes at the expense of sectoral and local interests. These factors have resulted in the small business sector having very little influence on the industrial restructuring which took place in the midst of a global economic downturn and internal political transformation:

> ... rapid restructuring in many sectors proceeded virtually in an institutional void, with firms scrambling to reduce costs by evading taxes and regulations, and workers being left to negotiate the terms and conditions of employment against the background but without the active enforcement of official contracts. In national tripartite bargaining, the political environment of the transition also did not favour policy supports for flexible production or for the strengthening of industrial districts. While employer associations championed the cause of dismantling the costly provisions of a rigid labour code, the unions were caught in a defensive position, ironically rallying to protect privileges established under the paternalistic labour policies of the authoritarian regime. Where national level bargaining focused on a particular industry, it was mostly on negotiating the time and extent of cut-backs in subsidies to heavy industry.
>
> (Benton,1992:52)

This organisational weakness of the organs of civil society is matched by a similar lack of cohesion of government policy which has moved only slowly away from the support of large industry. Autonomous regional governments, having come into being only in the last decade, are still new and relatively

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10) The *engineering and metalworking industry* plays an essential role in the proper functioning of small firm clusters in these districts. Kristensen (1992:154) reports that entrepreneurs often attribute their satisfaction with their locality to easy access to small machine and engineering shops in which they can have new machinery constructed at short notice. The development of new machines and machine repair services are facilitated since prototypes can be produced quickly by one of the many specialised producers. This of course encourages branching out into new product lines.

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direct support from the national political level, apart from the apprenticeship and technical schools. During the late 1970s, the Social Democratic government did initiate projects to assist SMEs. Technological centres were created in every county. Kristensen relates in detail how small entrepreneurs and unions were able to shape central institutions (like technical schools) to a locally oriented system (through the introduction of specific courses etc). Rules were changed so that entrepreneurs could claim unemployment insurance. Other regulations which discriminated against privately owned firms vis-a-vis limited companies, have been removed. Recently, policy towards SMEs has been contradictory: while tax rules have reverted to favouring limited companies (to promote hi-tech R&D programs and international marketing), the government has also introduced the "network program" as an attempt to learn from the Italian experience and promote cooperation.

Denmark does not, however, have any organisations representing small firms at local level and thus there are no organisations acting as a link between a locality's enterprise communal and regional politics and the national administration and political bodies. This vacuum results in a situation where no one body is working for the creation of policy conducive to these flexibly specialised industrial districts. Also there is no forum for small businesspeople to develop a knowledge of their strategic interests and "combine size, trade and space into a unified concept" (Kristensen,1992:162).

The above description clearly conveys that while Denmark has a unique culture and distinct history, the organisational principles operational in its dynamic furniture districts is extraordinarily similar to those which characterise the Italian model. Kristensen recommends the development of interest associations that cater specifically for the small firms to promote self-conscious development of the district. He concludes by observing that the Danish experience

> presents a challenge to those who think that development funds should only be directed towards "modern" industries, and that the promotion of "traditional" industries is a waste of time and money. It is clear that traditional industries and good pay are not incompatible ... the promotion of endogenous resources and small firm local networks organised as industrial districts offers an alternative.
>
> (Kristensen, 1992:171)

Other studies of furniture districts in various countries have also revealed both similarities to and marked differences from the Italian model. In the following section we review some of the findings of a Spanish case study.

2] THE EMERGENT FURNITURE DISTRICT OF VALLES ORIENTAL, CATALONIA, SPAIN

The institutional context that surrounds the development of the small firm industrial districts in Spain differs sharply from that of Denmark. Yet the movement from the authoritarian Franco regime to a more democratic politically decentralised system is more analogous to the South African context. For South Africa which is undergoing a broadly similar transformation, there is an opportunity to learn from the Spanish experience.

While certain unions and business associations were active during the authoritarian period, they were legally established only in the late 1970s (Benton,1992:48). Thus these organisations' support base among many constituencies is still very weak. Both union and employer groups have very weak representation among small firms and are in highly fragmented sectors. In addition both sets of organisations channelled their energies into consolidating national bargaining positions, sometimes at the expense of sectoral and local interests. These factors have resulted in the small business sector having very little influence on the industrial restructuring which took place in the midst of a global economic downturn and internal political transformation:

> ... rapid restructuring in many sectors proceeded virtually in an institutional void, with firms scrambling to reduce costs by evading taxes and regulations, and workers being left to negotiate the terms and conditions of employment against the background but without the active enforcement of official contracts. In national tripartite bargaining, the political environment of the transition also did not favour policy supports for flexible production or for the strengthening of industrial districts. While employer associations championed the cause of dismantling the costly provisions of a rigid labour code, the unions were caught in a defensive position, ironically rallying to protect privileges established under the paternalistic labour policies of the authoritarian regime. Where national level bargaining focused on a particular industry, it was mostly on negotiating the time and extent of cut-backs in subsidies to heavy industry.
>
> (Benton,1992:52)

This organisational weakness of the organs of civil society is matched by a similar lack of cohesion of government policy which has moved only slowly away from the support of large industry. Autonomous regional governments, having come into being only in the last decade, are still new and relatively

inexperienced players. Municipal governments, virtually absent as potent political forces during the Franco regime, are also quite weak financially (Benton,1992:52).

In recent years, however, certain political trends have been more favourable to flexible productive systems, despite these institutional barriers. These include the reappearance of regional governments in the 1980s:

> Political decentralisation opens the opportunity for new sets of alliances to shape the regulatory context for geographically concentrated industry. Supporting this trend is the gradual weakening of the tripartite bargaining system that lent stability to the transition period. The conciliatory posture of corporate-group leadership and their focus on a narrow range of issues have opened the door for the reappearance of strong grass-roots organisations with more specific objectives. Such a trend would help to shift the focus of bargaining away from the provisions of the labour code and towards more substantial issues of concern in emerging industrial districts such as opportunities for worker mobility, technological upgrading and infrastructural improvements
>
> (Benton,1992:55)

In general the impact of productive decentralisation on industry has mainly been to reduce the cost of and downgrade the conditions of labour. However there are certain pockets of agglomerated activity which approximate, to differing degrees, the industrial districts of the Third Italy. They not only survived, but displayed some degree of dynamism, despite, and not because of, institutional conditions.

The region of Valles Oriental has recently experienced a proliferation of small firms[17]. This was accompanied by relative strengthening of industrial specialisation in plastics and wood products, especially furniture. While employment declined in the rest of Spain, the number of industrial jobs actually increased by 28.85% between 1970 and 1981. Also in comparison with peripheral areas of Madrid, the networks of subcontracting and relationships of cooperation among firms are highly developed, even if they are not as dense or resilient as those found in the Third Italy.

Very small producers dominate the wood furniture sector in Valles Oriental: the average firm employs only 8 workers.

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[17] In fact the vast majority of firms in Valles Oriental are SMEs: 95.9% have fewer than 100 workers and account for 55.2% of employment, while two thirds of firms are micro-enterprises with only 1 to 9 workers (Benton,1992:67)

> The most interesting case is that of the wood furniture industry ... Within the zone, firms are grouped according to product specialisation, with a full range of specialty firms serving each product mini-region. Classical forms of vertical subcontracting are common, with firms that specialise in design and assembly subcontracting various phases of production to smaller specialty workshops. But horizontal subcontracting is also common, since firms need to diversify products within a particular style. Significantly, producers have organised a commercial association to market the district's products, both wholesale and through a large retail outlet, run and managed as a joint venture.
> (Benton,1992:67)

Empirical evidence suggest that employers take cognisance of inter-firm relations and the "industrial atmosphere" when selecting firm locations - among the most cited motivations reported by factory owners for choosing their current locations were the desire to live and work in the same zone, the benefits of being close to suppliers and clients, and the concentration of industry in the same zone (Benton,1992:68). The successful districts also reflect a strong local tradition of industrial development and entrepreneurship.

From the description above, it is evident that the furniture district of Valles Oriental does, to a certain extent, exhibit the characteristics which typify the small firm variant of FS.

3] SECTORAL RESTRUCTURING IN CYPRUS

The most salient feature of this particular case study is that the Cypriot government has explicitly adopted FS as its approach to industrial restructuring. The scope of this paper precludes an indepth examination of the Cyprus Industrial Strategy. This discursion will consequently be narrowly confined to aspects directly pertaining to the furniture sector.

Murray (1992:266) describes in detail one of the FS inspired initiatives, involving 13 furniture manufacturers and the Cyprus Development Bank:

> They agreed to open a joint retail shop, for which they would produce newly-designed products on a specialised basis. One firm was charged with kitchen furniture, another with bedroom suites, a third with children's furniture, a fourth concentrated on upholstery and so on, bearing in mind the styles being produced by the others. The members of the consortium (known as the A-Z consortium) were allowed to keep their own retail shops and their lines of production, but the specialised furniture could only be sold in the joint shop.
> (Murray,1992:1992)

As a result of this arrangement, economies in both production and marketing were realised. The longer runs have reduced unit costs of the specialised furniture by 20-25% and permitted investment in more machinery as well as the acquisition of larger premises. Retailing economies include the consortium's ability to employ a specialist interior designer at the point of sale, an expanded variety in product range (economies of scale) and the employment of 2 marketing staff to engage in research and propose new product developments. Other major benefits were a joint delivery system and an augmented collective capacity for advertising exposure.

This form of collective entrepreneurship also had extremely positive impact on productive efficiency. The joint retailing necessitated careful costing. A costing subcommittee was established, and mandated to visit each manufacturer, examine his or her cost structure and advise on improving costing methods and materials where costs were out of line. This of course promoted the adoption of more effective methods. They were in addition able to fund specialist consultants from Italy and by means of joint purchasing, cut materials costs by 25% (Murray, 1992:266). This initiative seems highly successful:

> The consortium now has shops in each of the major towns in Cyprus. Its consortium sales exceeded those projected in the initial feasibility study. In 1989 they won a major export order to the Soviet Union and have become successful exporters to Saudi Arabia. From a group of small manufacturers competing for the domestic market, they have become - if all their employment is added together - the second largest manufacturing concern in Cyprus, with a growing export record.
>
> (Murray,1992:266)

Furniture makers also organised visits to Emilia-Romagna and the Milan region to attempt to learn from experiences of the Italian consortia and real service centres. These have been adopted as a model for Cyprus, as a centre to be partly funded by the industrialists themselves - to provide marketing and technical assistance as well as access to Computer Aided Design (CAD) equipment.

By engaging furniture manufacturers and suppliers of inputs in a constructive dialogue the quality of locally produced inputs was improved. Previously, tension had existed

between the final manufacturers and the suppliers, each blaming the other for inferior quality and poor production techniques.

All of the above examples illustrate the actions which flowed from the sectoral strategies adopted by the Cypriots. While it is unlikely that any particular policy prescriptions derived from the three case studies detailed above are directly applicable to the South African furniture industry, the experiences in Denmark, Spain and Cyprus do demonstrate the use of FS as a frame of reference in analysing the dynamics peculiar to each furniture cluster locale.

Having given some idea of the underlying theory and the empirical work done on the furniture sector, the focal point of the next chapter will be FS in relation to South African policy making. This will be followed by an overview of the furniture industry in South Africa and those features peculiar to the Western Cape, which provides the background material for the empirical study of furniture clusters in the localities of Epping, Blackheath and Lansdowne.

CHAPTER TWO

FS AND THE SOUTH AFRICAN DEVELOPMENT POLICY DEBATE

The rapidly proliferating FS literature has, in the past few years, begun to permeate the thinking of academics and policy makers. With growing frequency, it is finding expression (either explicitly or implicitly) in the policy proposals for stimulating small-scale industry.

It is incontrovertible that there are many factors which would inhibit Italian-style industrial districts manifesting themselves in South Africa. Some of the more obvious would include a severe shortage of management expertise, a legacy of a racist, highly confrontational industrial relations system, high illiteracy rates and a racially skewed distribution of craft skills, the weakly developed capacity of small and medium-sized manufacturers to subcontract, a business culture distinctly antithetic to free information flow and collaboration. The list is far from exhaustive.

While acknowledging these barriers, Rogerson nevertheless maintains:

> ... local industry is increasingly committed to the adaption of new technology and new organisational innovations in production ... Moreover, the political transformation taking place in South Africa points to potential new opportunities for advancing a small-firm variant of flexible production. In terms of development planning for a democratic economy, questions of flexible specialization are increasingly surfacing on the policy agenda. Of special concern is the prospect for extended flexible production to the making of new (and improved) kinds of social relations in the workplace.
>
> (Rogerson,1994:13)

Rogerson (1993:48) suggests furthermore that post-apartheid initiatives for the promotion of small-scale manufacturing in a regional/local development context could be enriched by seriously considering the organisational principles underpinning industrial districts.

The need to encourage effective inter-firm cooperation and the emergence of industrial districts is also noted by Joffe et al (1993:21). This imperative is seen to be firmly within the realm of public policy. Government, both at national and regional level, is envisioned as playing a pivotal role in inducing conditions that would be conducive to a flourishing SME sector:

> If small scale enterprises are to develop, then the state must create an environment which encourages and nurtures them. In this context, the ANC argues for the establishment of an institution to support small-scale manufacturing units. Unlike the Small Business Development Corporation (SBDC), the envisaged institution would not be a state institution per se but will coordinate the efforts of other state institutions and small manufactures. In addition to granting loans and providing training, such an institute will promote agencies like inter-firm productive agencies, financial and marketing consortia to ensure that the small firms have access to economies-of-scale in the provision of marketing and technological information. This sort of networking will enable small manufacturers to shape and influence the market collectively, as well as compete effectively with vertically integrated firms.
>
> (Joffe & Ngoasheng,1992:486)

Any practicable approach to the formation of industrial districts would have to take the following points into account. First, as Kaplan indicates, while pronounced patterns of geographically clustered small firms do exist, "this has seldom resulted in small and medium enterprises sharing scaling costs such as design and marketing" (1993:26). Second, the FS paradigm stresses the local embeddedness of the production process (the failure of the previous regimes decentralisation policy serves to underscore this).

An FS inspired policy framework would have to seek out already existing regionally and sectorally concentrated agglomerations which display incipient features of, or potential for FS. These positive features would be reinforced by the training, infrastuctural and inter-firm linkage policies detailed above. To borrow a chemistry metaphor, once a "critical" mass of locally clustered forms in the same or closely related sectors accumulates, policy would aim at catalysing the "chain reaction" of interfirm cooperation which characterise the small firm variant.

FS has unmistakeably been one of the theoretical inputs into the policy orientation set out in the recent White Paper on the national strategy for the promotion of small business:

> Successful examples of strategies based on collective efficiency exist world-wide, for example in the Emilia-Romagna in Italy, Baden-Wurttemberg in Germany and some regions in Denmark. Through these interventions local governments have created conditions whereby small firms can - through co-operation networks, the provision of supportive services and infra-structure improvements - compete with the best of large international firms
>
> (Dept of Trade & Industry,1995:16)

Bloch recommends a broadly similar approach for the furniture industry in particular:

> ...given its nature as an intensely localised industry within a metropolitanised national spatial context, the furniture industry ... lends itself extremely well to a local-level analysis which can also potentially frame broader strategic directions for the overall industry ... in this kind of frame, the possibilities of upgrading such a highly localised industrial agglomeration through the building of network-facilitating institutions such as those characterising say, the Italian furniture districts proper -- marketing and financing consortia, local authority land programs (Best,1989) -- can be properly explored.
> (Bloch,1993,73)

Mashigo and Manning (1993:45) suggest, in addition, that the high value furniture market in the Western Cape "...may have greater growth potential, possibly in the mode of the small designer furniture enterprises for which the `Third Italy' is distinguished". This is based on their findings that competition in this market is heavily grounded in quality and design "with some of the products sold at a higher price than large competitors' prices" (loc. cit.). Also these entrepreneurs had generally accumulated experience through employment in the furniture industry prior to starting their own businesses.

Bloch (1993) also mentions Maitland-Epping Industria as an example of a furniture district in the Cape, noting the presence of input suppliers and warehousing facilities. It would be extremely useful to compare the nature of interaction between these "spontaneously" agglomerated furniture firms vis-a-vis the "artificial" small furniture manufacturing cluster at the Blackheath industrial hive.

While the secondary sources cited above do indicate the existence of furniture districts in the Western Cape, they tend to employ different definitions of the terms "district" or "cluster". Often these definitions were (as in much of the FS literature) vague and shed very little light on the physical delimitations of these clusters. This and other issues come under more detailed consideration in the section which deals with the methodology underlying the case study. The next chapter sketches cursorily the most prominent features of local furniture manufacturing.

CHAPTER THREE:

AN OVERVIEW OF THE SOUTH AFRICAN WOODEN FURNITURE INDUSTRY

The objective of this section is to outline briefly the contours of the furniture industry in South Africa as a whole, with regard to its structure and recent performance[18]. Furthermore those characteristics more specific to the Western Cape will be reviewed in greater detail in order to gain some insight into the environment which shapes local furniture production. Particular emphasis will be placed on the role of SMEs.

Market conditions and performance

The wood furniture industry (SIC 332) constitutes roughly 1% of total manufacturing, with an estimated current output of around R2-3 billion per year (Bloch,1993). Table 2 details household expenditure in 1993 by area and item, revealing that the demand for furniture is centred in the metropolitan areas.

Table 2: Household expenditure on furniture, 1993

TYPE	METROP. AREAS	NATIONAL STATES	TBVC	OTHER AREAS	TOTAL
Bedroom suites	367 949	188 441	78 546	236 285	871 221
Diningroom	171 839	62 963	37 393	85 878	358 073
Lounge suite	378 822	99 453	55 699	184 490	727 464
Kitchen	118 045	73 563	36 954	78 126	306 688
Garden furn.	57 174	733	294	8 566	66 767
Loose items - wardrobes etc	314 499	56 104	41 127	124 846	536 576
TOTAL	1417 325	481 257	250 013	718 191	2866 786

Source: BMR,1994:110

Employment in the last 5 years has ranged from 30 000 to 35 000, approximately 2.5% of the labour force (Bloch,1993). Nationally there are about 1350 plants (Manning,1993) and

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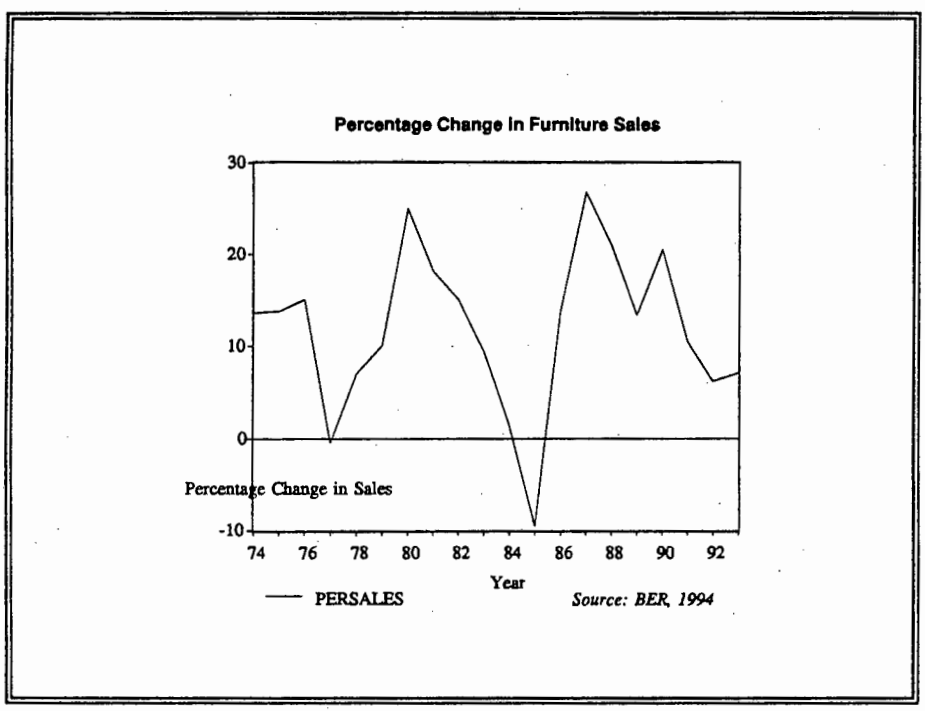
[18] Since the furniture industry has not been the subject of extensive research, this section draws heavily on the work of Bloch (1993) and Manning (1993). The only other data sources are Immelman's (1989) NPI study and the IDC database.

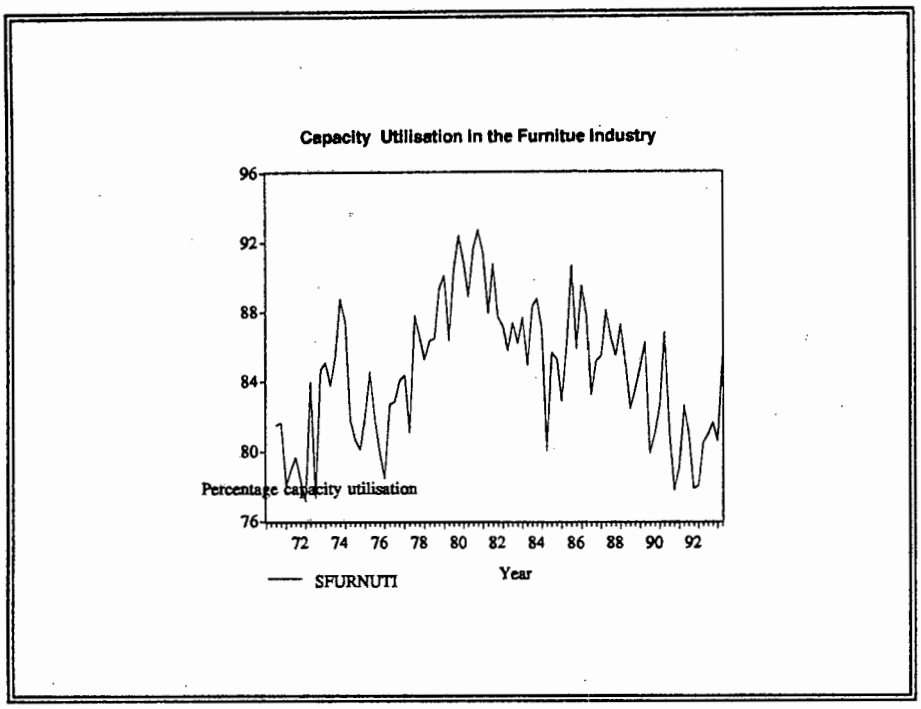
their production may be broadly categorised into distinct segments. The wooden segment includes both solid wood furniture and case goods (made from chipboard and other composite boards). It comprises about 40% of total furniture production. Bedding (mattresses and bases) and upholstery (covered wooden furniture) each account for about 25% of production, with the remaining 10% consisting of office furniture (Bloch,1993).

Figure 2: Furniture Sales, 1974 - 1992



Furniture sales tend to be highly seasonal. This seasonal volatility is compounded also by sensitivity to cyclical variations. Since 1987, as can be seen in figure 2, furniture sales have followed a declining trend and have only stabilised and improved marginally in the last 18 months. Predictably, poor sales have impacted negatively on production - in fact the furniture industry is only now showing signs of emerging from one of the worst crises experienced by the industry. Production volumes plummeted by 17% in 1991 and declined by a further 10% in 1992. 124 firms closed down between January 1991 and September 1992, shedding 2913 jobs (Bloch,1993).

Figure 3: Capacity Utilisation in the Furniture Industry



Besides these factory closures and accompanying retrenchments, the sharp reduction in furniture manufacturing output precipitated widespread short-time working throughout the industry. However, the decline in the number of employees in the industry slowed to 2% in the 12 months to December 1993 from the 11% reduction in the same period in 1992 (AFCOL annual report,1994).

As can be seen in table 3, the primary source of demand for furniture comes from white households. However the escalating

Table 3: Shares of the furniture market by population group

POPULATION GROUP	MARKET SHARE
Asians	6.5%
Blacks	22.6%
Coloureds	8.1%
Whites	62.8%
Total	100%

Source: BMR,1994:51

needs of black consumers are increasingly being seen as an opportunity for growth in what would otherwise be a quite mature market. The furniture business is very closely linked to the vicissitudes of the building sector, and the much promised surge of RDP induced low income housing construction is seen to be a cause of optimism for the industry.

Market Structures

The most striking feature of the furniture industry is the high degree of concentration in the retail market, the domination of production by a few large groups and collusion by suppliers in input markets, many of whom are vertically integrated with the manufacturers (Manning,1993).

The bulk of all furniture is sold via the retail groups. In 1986, it was estimated that 12 groups held about 92.3% of the market share in the industry. Independent retailers make up only about 20% of the over 3000 retailers in South Africa. The findings of Manning's (1993) survey of small and medium furniture producers indicates that this is a serious barrier inhibiting the development of small and black businesses.

First, the volume of production required by the large retailers (who seek to maintain product consistency in their outlets nationwide) is often beyond the capacity of SMEs. Second, the retailers set payment, pricing and standards which affect the profitability of smaller manufacturing concerns. Manning (1993:6) contends that, given that most large retailers provide extensive credit to their customers, they are passing the cost of this onto their suppliers. Moreover,

since there are so few independent retailers, manufacturers tend to have limited choice as to working with the retailer chains (Manning,1993).

Finally the role of social networks which underpin the economic success of the dynamic Italian districts[19], seems to operate somewhat perversely in South Africa. Here they tend to reinforce an exclusionary business culture, often inimical to small, black business:

> Buyers of the retail groups have acquired a reputation for inflexibility in their buying patterns, a phenomenon which well serves the interests of established manufacturers, but which amounts to a further barriers restricting the access of smaller or black firms. Since buyers, with few exceptions are white men, black manufacturers who are excluded from the informal networks pervading the economy and society, find it even more difficult to procure orders from them.
>
> (Manning,1993:7)

Concentration is also evident in production. AFCOL[20] which claims to be "the most extensive furniture manufacturing operation in the Southern Hemisphere in terms of turnover, profits and assets" (AFCOL,1994:4), produces almost 40% of all household furniture (Manning,1993). The office furniture market is dominated by another large group - Mathieson and Ashley - with about a 40% market share.

It is not clear, however, how this market structure impacts on the efficiency of the furniture industry as a whole. There is no a priori reason why the degree of competition between relatively few large groups closely linked with their supplier networks, should be any less intense than for a greater number of firms. In fact, as Manning (1993:9) points out, this organisational configuration may well be a significant determinant of the efficiency of many successful Japanese firms. On the other hand, where there is little evidence of predatory pricing by the large groups, this particular ownership structure may impact extremely negatively on small-scale furniture manufacturers:

> ... the extensive linkages between the manufacturing groups and the retail groups suggests that independent manufacturers out of

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[19] By providing, as Brusco (1981) describes it, social cohesion for productive decentralisation.

[20] The Associated Furniture Companies Ltd

> the stable of these groups stand less of a chance of winning contracts. The links between the manufacturers and their suppliers also raises the questions about the fairness of the treatment accorded to independent firms. It is thus likely that this ownership structure will undermine the competition process by placing small and independent manufacturers and suppliers of inputs in an extremely vulnerable position.
> (Manning,1993:10)

In addition, the input markets (eg pine, boards) show evidence of widespread collusion (Bloch,1993; Manning,1993). This, in conjunction with the factors discussed previously, serves to create an environment in which smaller firms find it extremely difficult to compete. Yet it is extremely difficult to isolate empirically the cyclical demand influences on small firm performance from the influence of such structural factors. Bloch vividly describes the predicament of hundreds of small

> single plant, often family owned and run firms, which are most subject to "the margin-squeezing power of the mass retailers" (Best,1990:229). This power is coupled on the other end with the control exerted over input costs by dominant suppliers: pine supply, in particular, is virtually cartelised (Immelman,1993). These smaller companies with inadequate capitalisation, generally low design capabilities, low levels of networking and specialisation, low and attrited skills bases and a lack of institutional support, produce much the same product and must then compete on price alone, often attempting to cut their costs.
> (Bloch,1993:69)

Under market conditions which place severe downward pressure on even the large groups' margins, the high degree of bankruptcies, shutdown and layoffs in the small-scale manufacturing sector is hardly surprising.

Export performance

Furniture exports have grown substantially in the past few years. Since the initial base for furniture was exceedingly low, the export value of the furniture industry is however still quite small. In 1992, furniture to the value of approximately R170 million was exported from South Africa, representing roughly 10% of output (Manning,1993). Yet the growth of exports has been quite promising. Between 1972 and 1983, the average growth of furniture exports in 1990 prices was 18.8%. From 1983 to 1990 it increased to 22.9% (World Bank,1994a,372). One reason for this may be that the recession forced local producers into the export market.

In a recent policy document, the World Bank suggests that niche export markets in light industries could provide a

strategic option for South Africa compatible with its wage structure. One of the light industries referred to is furniture:

> A sustainable expansion of light manufacturing is nonetheless possible with the prevailing wage structure. It can take place in export markets for niche products - high quality textiles, garments, shoes and furniture .... The essential ingredient for successful niche export markets include high product quality, reliability in meeting delivery schedules and a quick turnaround. (World Bank,1994b,13)

However, the majority of South Africa's current furniture exports is relatively low value knock-down pine furniture (Manning,1993) and not, in general, the higher value added products described above. Moving up the value chain would entail a substantial re-orientation on the part of local manufacturers.

Tariffs on imports are presently at about 20%, and less than one percent of furniture sold is imported. Export incentives available to exporters (GEIS) is at 19% and seems to play a major role in prompting manufacturers to venture into export markets (Manning,1993). However, this situation could change rapidly once South Africa modifies its tariff structures to become more GATT consistent. This could be a major issue in the furniture industry in the near future. The findings of Manning's (1993) research suggest that the institutional support offered by SAFTO is inadequate and she recommends that it be restructured to serve a wider constituency. On the positive side, full containerisation, competitive freighting costs and the depreciating rand seems to have had a favourable effect.

The Western Cape Market

Spatial agglomeration in three well defined regions is another salient characteristic of the furniture industry. Table 4 below depicts their relative importance in production and employment.

(Kaplan,1993:15). The comparative technological stagnation vis-a-vis competitors like the Danish furniture industry is a cause for concern:

> The furniture industry training board (FITB) has voiced the concern that they are required to teach people the "older technology" while knowing that the "new technology" is what would be required in the future. The cost of high tech machinery is often prohibitive, and it was often mentioned that the small size of the local market prohibited the use of very productive equipment such as in use in Italy.
>
> (Wesgro,1992:10)

The last observation is especially pertinent - it highlights the important contribution of supporting industries in the really dynamic furniture districts worldwide. The Italian furniture districts have very close links with machinery manufacturers, and a similar close working relationship characterises the Salling district in Denmark. Another attribute of these districts are suppliers who constantly strive to improve the quality of inputs, which again to a large extent is absent from the South African industry[22].

Most inputs are available locally[23] except for the imported woods. So access to inputs per se is not likely to be a problem. However, the bulkiness of furniture means that for the Western Cape manufacturers, transport costs play a critical role in determining competitiveness and the scope for geographic market expansion. In addition to cost considerations, furniture may not transport well over long distances. This issue can be mitigated to some extent by the furniture design which accommodates transport. However, design capacity is one of the most serious deficiencies of the industry (WESGRO,1992)

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sector is spent on R&D (Kaplan,1993:15)

[22] A case in point would be compressed wood, which looks like becoming the breakthrough of the 90s in furniture design and production. In collaboration with a private company, the Danish Institute of Technology has pioneered a process which allows treated wood (eg Beech and Ash) to be bent into sharper, more intricate curves with less danger of breaking. The institute has encouraged artist and furniture designers to join in in testing the creative possibilities of the process and thereby demonstrate ways of using compressed wood to manufacturers.

[23] Although their quality may not always be comparable to those imported from overseas

Institutions

While there is a relatively dense institutional network of employer and trade associations, unions and industrial councils in South Africa at a sectoral level, these are often lacking in coordination or face institutional capacity constraints:

> The weakest link amongst existing sectoral institutions are the industry associations. Many exist either as mere post-boxes enlivened only by a threat to their protective tariff, or, at best, as heavily bureaucratic bodies that deal, in addition to lobbying government for protection, representing employers in centralised wage negotiations. Conspicuously absent are initiatives around supply side issues - technological development and training or around the export markets"
> (Lewis,1993:17)

The furniture industry does not seem to be an outstanding exception to the rule in this respect. There is no evidence of significant formal collaboration facilitated by employer organisations in conjunction with other relevant sectoral institutions. Bloch comments on the absence of strategic planning for the industry:

> The furniture industry is then not a healthy industry. It is also a weakly coordinated one at the level of strategy: the Federation of Furniture Manufacturers, and its regional structures (which represent 850 companies containing 90% of the workforce) manage labour relations, have set up training schemes in the form of a Furniture Industry Training Board, and have punted a mark of quality to improve this particular (and vital) aspect of production. The National Productivity Institute has also assisted companies, particularly ones in the homelands. But there is nothing approaching a strategy for the industry.
> (Bloch,1993:70)

In the Industrial Council (IC) for the furniture manufacturing industry of the Western Cape, the two parties are the Cape Furniture Manufacturers' Association (CFMA) and the National Union of Furniture and Allied Workers of South Africa (NUFAWSA).

A closed shop exists in the Western Cape furniture industry[24].

The IC Agreement (1993-1994) prohibits piecework[25] or

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[24] Clause 25, IC Agreement 1993-4: " No employer who is a member of the employer's organisation shall continue to employ employees for whom wages are prescribed in part II of the Agreement who, while being eligible for membership of the trade union, are not members of such trade union within a period of 90 days from the date of coming into operation of this agreement or of the start of employment ..."

[25] Clause 4: Industrial Council Agreement (1993-1994) "No employer shall require or allow any person to work piece-work or any other system by which earnings are done ... " except as part of an incentive scheme subject to the

outwork[26]. Industrial Council wages are based on activities in the production process. For instance, employees engaged in upholstery of spring or firm bed bases should earn a minimum of R283,80; boring holes and filling cushions R262,90; applying wax and fixing handles by screws, bolts and nuts through pre-bored holes R242,00 etc[27]. This form of wage structure is often perceived as detrimental by the smaller manufacturers who have to pay artisan wages to single phase operators who they have trained to be competent in only one activity.

However, a firm employing a maximum of 4 employees (including a working employer) may elect *not* to be party to the IC agreement, in which case the wage structure detailed above would not be binding. On one hand, it is argued that this sort of exemption may allow microenterprises[28] to establish themselves. But once the IC threshold is reached, smaller employers have to not only conform with the official wage structure, but also conform with the benefit structure eg holiday and bonus fund levies, sick and maternity benefits and other IC levies etc. This means that microenterprises may initially follow a strategy of minimising labour costs rather than upgrading quality, and clearly this strategy is not viable as the firm begins to grow (beyond the IC threshold).

Previous surveys have indicated that:

> Some of the smaller employers have complained that the Industrial Council structure and arrangements discriminate against them.

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condition that no employee be paid less than he would be entitled to in terms of the IC agreement.

[26] Clause 4: Industrial Council Agreement "No employer shall require or allow any of his employees to undertake work in connection with the Furniture Manufacturing Industry elsewhere than in his establishment except when such work is in completion of an order placed with an employer and consists of fitting, assembling repairing or polishing furniture in premises owned or occupied by the person for whom the work is undertaken" (Government Gazette,1994)

[27] The 1993-4 I agreement enumerates about 156 different activities and their corresponding wages.

[28] Like the term "small" business, there is unfortunately no uniform definition of this term in the literature. In the context of this case study, the term "microenterprise" will be rather arbitrarily applied to firms with ten or fewer employees.

> High levels of wages relative to what they can do, and resistance to attempts to reorganise the business to greater employee participation and pay on the basis of results rather than time were mentioned. Another example of problems was that working through the holidays was apparently not allowed.
> (WESGRO,1992:12)

But, as pointed out by a NUFAWSA representative, the IC wage structure represents a minimum, and most employers pay in excess of those rates (Dumpies,1994). This conflict of interest between smaller manufacturers and organised labour is by no means confined to the furniture industry. This is an area requiring urgent policy attention, especially in the light of the new government's stated commitment to improve labour conditions, as well as promote further job creation and stimulating SMEs. This issue will be explored in greater depth later[29].

The other prominent institution is the furniture industry training board (FITB). Training is provided by the FITB in the different trades[30] for apprentices as well as supervisory diplomas and other management training courses. The FITB is financed by a levy on the manufacturers amounting to 2% of their weekly wage bill. These levies are compulsory and paid via the Industrial Council, and there is generally no further fee for services rendered except when the FITB draws on outside industrial relations or technological expertise. When introducing the present training system, Smith (executive director of FedFurn) comments on the previous system in the FITB Artisan Training brochure:

> As manufacturers we have for years complained about the state of our Industry's artisan training - and with some justification. Any industry employing around 35 000, that indentures less than 120 apprentices per year and has 83% of these fail their trade test, has reasons to worry about its skills future ... we have enough competition from our suppliers and the retailers, not to mention our consumer durables for a profitable share of the consumer rand. Let us not have negative competition within our own ranks for the skills necessary to keep our businesses

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[29] These concerns have already been raised in the White Paper on small business development (Dept of Trade and Industry,1995)

[30] These trade courses include wood-machining, cabinet making, frame making, upholstery, carving and wood polishing. Courses are modular with 5 stages (qualified stage 1 operator basic/single; Qualified stage 2 operator, basic/multiple; stage 3 operator complex/single, qualified stage 4 operator, complex/multiple and finally fully qualified artisan.

running"[31]

(FITB, undated,1)

This is then a prime example of the "public good" problem so often confronting sectoral agglomerations - the generation of goods and services required by the collectivity, but which the individual business unit has little incentive to supply (Best,1990:237).

Since most micro and small enterprises elect to remain outside the IC system, they consequently are not required to pay the training levies; nor do they receive much institutional support from the FITB. Currently small employers play virtually no role within the training board system. Generally requests for training by manufacturers elicit appropriate responses from the board. Because SMEs do not take part in the board, the FITB *as an institution* is not oriented toward the specific SMEs, even though individual trainers may be more sensitive to these requirements. While the local FITB has committed more resources to training than any other region (there is a staff of 11), this is not sufficient to address the skills backlog, especially if it were to expand its client base.

Noble (1994) suggests that exempting smaller firms from the levy (under the current system) could have negative consequences for their long-run development. Once the IC threshold is reached, many smaller firms then have to contend with the training levy in addition to other IC requirements. It is often precisely this sector which could benefit most from management and artisan training. But while SMEs do not necessarily receive skills training directly, they may still benefit indirectly. The new artisans trained by the FITB may be enticed into the small business sector by offers of higher monetary wages, but without benefits like pension and sick fund privileges (Dumpies,1994).

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[31] Smith's mention of "negative competition" was reinforced in a personal interview with one of the FITB trainers who described the culture of the industry as "paranoid" with each manufacturer scared of somebody else poaching his/her skilled personnel. The culture was also described as one of fierce competition, highly "secretive" not conducive to the sharing of information and technological diffusion (Noble,1994)

Another crucial area is that of design. The FITB does present a design module to artisans as part of the artisan training program, this is not adequate. There are also no courses exclusively devoted to furniture design. This is in part due to financial constraints (the FITB does not have funds available to send the trainers overseas to become acquainted with training methods and state-of-the-art technology) as well as a lack of capacity to train the trainers themselves (eg computer techniques etc).

While design may be absolutely essential for penetrating the high valued market niches recommended by the World Bank, design capacity in the Western Cape is extremely limited[32]. In addition furniture designers are often imported from overseas, thus there is a gap in learning and knowledge acquisition by the furniture industry in this area.

CONCLUDING REMARKS

This section attempted to focus attention on the most salient features of the furniture industry, with special emphasis on those characteristics peculiar to the Western Cape. Drawing extensively on previous empirical studies, it attempted also to describe the institutional environment which furniture manufacturers (and small-scale producers in particular) operate, as well as the major market trends. This provides a background to the empirical study detailed in the following section.

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[32] Noble (1994) guesstimates that of the 250 firms in the Western Cape, only 2 employ full time designers.

CHAPTER FOUR:

AN EMPIRICAL STUDY OF THE FURNITURE SECTOR IN THE WESTERN CAPE

The FS paradigm emphasizes that industrial policy research should take a disaggregated approach, differentiated along sectoral lines. It stresses that groups of firms and the extent to which they interact should be the object of study, rather than individual firms in isolation. From the FS perspective, the importance of interpersonal relationships, the local embeddedness of the production process and the important role assigned to local technological capability have very specific implications for empirical research. As Benton (1992) suggests, any effort to promote growth in incipient industrial districts must analyse local cooperative relationships and attempt to devise policy interventions that respond specifically to their logic. Unlike most small business research, FS encourages a longitudinal view of small firm development, looking at the history of firms and the staged development of linkages. FS does not make a distinction between the size of firms per se, placing more emphasis on their relations with other firms.

The above characteristics of FS have important methodological implications for any empirical study using this approach. There are several other interconnected social, political, spatial and economic factors which could also be relevant to the networking dynamic in a particular locality. However, it is hardly likely that any one study would be able to address all these issues. At this point it is perhaps useful to review briefly how other researchers have worked within the FS paradigm.

As mentioned before, the task of deriving a working definition of the small firm variant of FS or some framework for empirical research is impeded by a lack of conceptual clarity. A criticism often levelled at the proponents of the FS ideal type is that it provides a shopping list of the positive qualities of dynamic industrial districts, without specifying the causal mechanisms so vital in the coherence of such vastly different elements. For instance:

> The way in which Hirst and Zeitlin present their ideal-typical model helps to insulate their analysis from any substantial criticism. Thus they claim that, as ideal types, flexible specialisation and mass production involve neither empirical generalisations nor descriptive hypotheses. Nor do they specify real causal mechanisms operating beneath a welter of empirical events: serving only a heuristic purpose, they have no truth value (Hirst and Zeitlin,1991, p6 and 3). This implies that such ideal types are intended to serve only as yardsticks with which to compare different empirical cases in terms of their relative deviation from a non-normative norm. Whether this is a useful exercise is hard to judge and is not one to which Hirst and Zeitlin restrict themselves in actual practice. For they quickly proceed to offer stylised arguments and empirical generalisations about the circumstances in which FS emerges.
>
> (Jessop,1992:35)

Jessop's reference to a "non-normative norm" is very significant. There is a tendency for the supporters of the FS paradigm to champion its use as a normative, rather than a positive approach[33], without explicitly justifying it in terms of its possible merits and demerits. Using FS as a positive approach can yield significant methodological benefits, as Aeroe (1992) points out. But advocating FS as a normative concept should entail a far firmer conceptual grounding and more stringent and compelling justifications - requirements often entirely ignored in the debate surrounding FS. Asheim (1992) in a similar vein criticises the lack of specification of relationships between the composite elements of the FS theory:

> ... to qualify as an ideal type, flexible specialisation must be defined in a narrow and precise way as a "specific model of productive organisation". Because of the lack of theoretical specifications, the theoretical approach evaporates into one of an ordinary empirical generalisation, which due to its inductive procedure cannot attain any theoretical status.
>
> (Asheim,1992:52)

Without specifying causal relations, the FS paradigm may not be able to generate any really useful policy guidelines. Take, for instance, a small firm cluster which displays all the characteristics of the ideal type except two (say innovation and multi-skilled labour). Assume that one deviation from the ideal type is tractable to various policy instrument (say skilling) and the other (lack of innovation) is not. Then one is faced with a classical second best conundrum: will

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[33] A positive approach to FS would be used to ascertain whether FS exists in a given locality (ie. degree of conformance to the ideal type). An normative approach is used to make policy recommendations on future industrial sector development.

eliminating the one imperfection bring the system closer to FS, or will it exacerbate the situation (for instance, by promoting the creation of dual labour markets). Without some idea of the chain of causalities set in motion by any policy action, it is extremely difficult to design effective policy. The static nature of the model is thus a serious deficiency.

This conceptual confusion is compounded by large empirical gaps. There is no consensus on what constitutes an industrial district, its significance and whether its success is sustainable. As mentioned above, it is not sufficient to recognise that clustering improves efficiency, without having some understanding of *how* and *why*.

Schmitz (1994:18) acknowledges these conceptual problems: "the industrial district model is not an analytical model but an ideal type, or less flatteringly, a list of stylised facts". In his study of the Sinos Valley shoe producing region in Brazil, he proceeds by contrasting the conditions actually prevailing with the ideal type. Noting that there is an inherent danger that this might give rise to a static approach, he attempts to track changes within the cluster over time. He comments:

> Overall, it seems that the industrial district model was helpful in that it guided us to critical factors which needed to be investigated to explain the growth of the shoe industry: the combination of competition and cooperation, collective activity, social embeddedness etc. Disaggregating the model into its components provided a useful framework for organising the empirical investigation. However, since this is a case study of a rapidly growing industry, two shortcomings of this model are also apparent: it emphasises specialisation i.e. differentiation by product/process, but ignores (negates?) differentiation by size, it is strong on linkages internal to the cluster but is weak on external linkages.
>
> (Schmitz,1994:18)

A further complication derives from the wide variation within sectors themselves: most industries can be compatible with many diverse stories of industrial organisation, depending on which market segments are under examination, and over which time period.

Schmitz (1992) suggests that the focal point of further research should be whether dynamic growth of small firm clusters has occurred in LDCs, and which conditions produce, modify or prevent such growth. In order to arrive at any

overall conclusion, it would be necessary to address a number of subquestions. Schmitz (1992) lists a few areas of focus:

- Is the cluster merely a multiplication of producers making similar products or has specialisation and inter-firm division of labour developed?
- Do these vertical links include a network of suppliers (of raw materials, equipment, spare parts and repair services) and of purchasers (of intermediate or primary products)?
- Are there examples of horizontal cooperation and how significant are they?
- How have local labour markets influenced competitive strategy and market entry?
- How have socio-cultural factors influenced exit costs and inter-firm relations?
- Has there been quantitative growth (increase in output) and qualitative growth (improved product quality, product variation)?
- Can one distinguish between different phases in the growth process?
- How has growth been influenced by national economic policies and legislation?
- What has been the role of local institutions (public and private)? If they have played a negative role, what is required to turn them into institutions enhancing small firm development and effectiveness?

Other subsidiary issues would include the nature of the cluster: (a) hierarchical - where a large firm coordinates subcontracting among a network of small firms or (b) non-hierarchical - in which equals compete or cooperate. There is a need to distinguish the relative importance of external economies of scale[34]. Furthermore, attention should be paid to the nature of collective efficiency: planned (consciously pursued) or unplanned (circumstantial).

The various raised by Schmitz are very broad in ambit, but were as far as possible accommodated in the design of this

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[34] External economies include both "real" and "pecuniary" economies. The former affect the actual conditions of production while the latter refers to the monetary terms on which they take place ie prices of inputs and outputs

study. Schmitz (1992) suggests that the case study method be applied, and implemented in 4 stages:

1] A questionnaire survey from which the contours of the small firm economy can be drawn in quantitative measure. Questions would be few, simple and closed.

2] The second stage would consist of in-depth case studies of selected firms using a structured but open-ended interview schedule.

3] The third stage would be to gather additional information from suppliers of credit, raw materials etc.

4] A fourth stage would concentrate on institutions, both public and private.

The procedure outlined above provides an excellent guideline for the application of the FS methodology. However, in the present study it is somewhat modified. The initial phase is dispensed with entirely. Unlike many other LDCs, the South African small business sector and that of the Western Cape in particular, has already been the object of extensive research. Thus secondary data and the records of institutions like the SBDC could be relied on in the exploratory phase of respondent selection.

The second stage conforms to Schmitz's proposed procedure and comprises the core of this study. The third stage was also omitted - due to time constraints. This is a serious shortcoming of this particular case study. The third stage is absolutely essential for gaining a more balanced view of the interest groups within sectoral development, instead of relying on the manufacturers' views, which are, naturally, biased. It could also function as a form of information validation. The fourth stage draws on secondary data as well as own research, but makes up a relatively small section of the study.

Van Dijk (1992) has also applied an FS-inspired methodology to the informal and formal sectors in the capital of Burkina Faso (a small, landlocked African country). For the informal sector, the key terms of FS were operationalised as follows: the sample of 350 informal sector firms was divided into those

using simple tools (248 or 72%) and those using machines or more sophisticated tools. T-tests were then applied to ascertain if any statistical differences between the 2 groups existed in respect of investment in tools, total employment, weekly turnover, weekly income to the entrepreneur, etc. There proved to be significant differences at the 1% level. Collective efficiency is seen as the interaction between technology, type of goods produced, interfirm division of labour, small firm communities and networks. Some indication of collective efficiency was obtained by comparing the economic results (with respect to the variables listed previously) of firms within small firm communities to those operating in isolation.

This is an interesting approach, but was not selected for this study. The main reason is that for this type of statistical inference one needs a fairly large sample size of both the clustered and the control group. In addition, even if the sample size were sufficiently large, statistical inference is based on the assumption of random data points. Random sampling, as will be explained later in greater detail, could defeat the main aim of FS inspired studies which concentrate on systematic linkages between the various elements of a cluster.

In the formal sector, Van Dijk attempts to classify firms fitting into the FS approach. Firms were classified on the basis of the following criteria:

1] Technology (multipurpose equipment and skills required);
2] Innovation (indications of product and process innovations);
3] Inter-firm cooperation (subcontracting or other arrangements);
4] Networking (formal eg Chamber of Commerce, and informal).

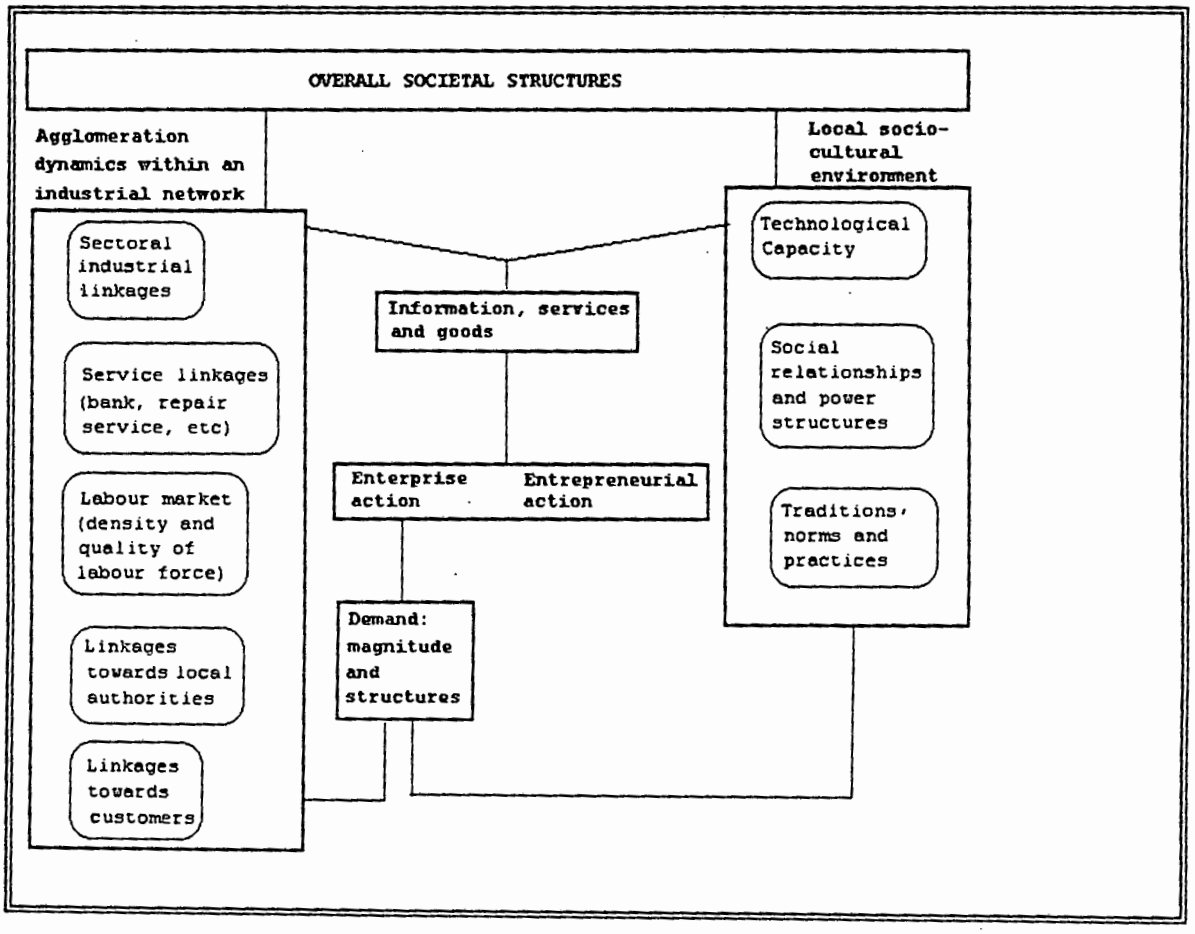
The score was based on at least one point for technology or innovation and two points for each of the other characteristics. If the score was 3 or more, that firm was considered as having the potential to follow or to be following an FS strategy. Variables difficult to measure were

excluded from this index eg. innovative mentality and collective efficiency. Nevertheless, since measurement of some of the variables did depend on the judgement of the researcher, this inevitably introduces a degree of subjectivity.

It would be reductionist in the extreme to maintain that any single measure could capture all the nuances intrinsic to the FS approach. However, despite its simplistic nature, an index of this type could, with appropriate qualifications, serve as an adequate summary measure of deviation from the ideal type.

Aeroe (1992) provides an excellent framework for the analysis of the local embeddedness of small firm production and the interaction between overall social structures, agglomeration dynamics and the local socio-cultural environment.

Figure 4: Aeroe's (1992) analytical framework of small firm production



institutions. It is hoped that this deficiency would be overcome by subsequent empirical work along similar lines. In this section the difficulties encountered in moving from an ideal-typical paradigm of FS to more applied research have been discussed. In order to operationalise the FS paradigm, researchers have recast it in more concrete terms, in the form of tractable working definitions. A few of these alternatives have been considered. In the following section, the specific research methodology adopted in this case study is delineated.

RESEARCH METHODOLOGY

THE SAMPLE

The primary data source was the 1992/3 Industrial Survey of the Western Cape Regional Service Council (WCRSC). This enabled the compilation of a list of furniture manufacturers by industrial area, and gave information on their physical location. This was supplemented by lists from the SBDC, Jeffrey Kleinsmit's Black Book and the Cape Furniture Manufacturers Association. The areas with the greatest number of physically clustered firms were Blackheath (including the Industrial hive), Epping, Maitland, Lansdowne and Woodstock-Salt River, each having 15-25 furniture establishments of varying sizes. This preliminary catalogue of furniture manufacturers indicated that the two basic prerequisites of FS were satisfied (i.e. a critical mass of spatially concentrated and sectorally specialised firms) both at the level of the industrial area as delineated by the WCRSC (for the 5 areas mentioned above) and for the Western Cape as a whole.

One of the key objectives of the empirical study was to investigate the effect of the variable "locality" on other variables such as inter-firm cooperation, access to raw materials and supplier relations, the interface with customers and the overall functioning and performance of the firms. Accordingly sampling was done primarily on the basis of locality. The only other sampling restriction was market segment. Based on the assumption that firms catering to the middle and high value markets would be more likely to display the attributes characteristic of FS, firms from the lower end of the market were excluded from the sample. The sample was not stratified by size of firm (i.e. did not explicitly take into account firm size). Stratifying by firm size as well as location would entail using a large sample space. However, ignoring this factor could lead to a sample which is skewed toward large or very small firms. If firm size exercises a potent influence on the qualitative nature of interactions within a locale between firms or between firms and suppliers,

customers or other institutions, then neglecting to control for this factor could be a serious weakness of this study. Fortunately, as discussed in the statement of results, the size distribution of the sample spanned the range from micro- and small enterprises to large enterprises. This was partly a function of the particular localities sampled.

It was then necessary for the purposes of this case study to define the geographical ambit of a locality i.e. to delimit in physical terms the boundaries of each "cluster". While some studies have applied the term cluster or locality to entire provinces (Rabelloti, for instance, uses the Italian province of Marche as a sampling frame), other studies have concentrated on small towns as units of analysis (eg Aeroe (1992)).

One option could be to regard the entire Western Cape as a single locality, possibly stratifying for size. Given that the sample set then becomes quite large (at least 250, probably more given that the number of informal enterprises are difficult to ascertain), random sampling would perhaps be more appropriate. However, once again to be truly representative the sample would have to be quite large.

Beside resource and time constraints which rendered impossible a survey of this magnitude, such a survey would shed light only on whether cooperation exists, rather than the process of cooperation per se or the link between locality and cooperation. Random sampling could in fact defeat the object of this case study which seeks to investigate the systematic relationships between firms within a locality, their suppliers, customers, unions, employee organisation and other actors in their environment. Therefore sampling was *not* done on a random basis. This type of non-random sampling has been a common feature of other case studies based on a similar approach:

> To uncover the variations and dominance structures between the enterprises, these were not surveyed at a random basis, but individually selected to cover the whole spectre *(sic)* of small town enterprises. If entrepreneurs were sampled at random, few large and dominating enterprises may have escaped the survey, while a large number of small, less influential enterprises could have been surveyed. Hence this latter sample gives a wrong picture of the structure and the linkages, and consequently of the agglomeration dynamics.
>
> (Aeroe, 1992:64)

This means that statistical inference is not possible, and also has implications for the generalisability of any conclusions. However, since the locally embedded nature of production demands a certain specificity rather than broad generalisations, this is not a major drawback.

A further alternative would be to use the entire Western Cape as a sampling frame but to attempt to explore the process of cooperation by isolating and examining networks of firms already engaged in cooperation, either through references or word of mouth. The main problem with this approach is that it may yield several duos, trios, quartets or even quintets of cooperating firms. The component firms of these networks may however be scattered across different locations (and hence be affected by different environmental and institutional factors). This makes any comparison between the various networked groups extremely difficult since the dynamic of interfirm interaction is likely to be moulded by the different environments in which the constituent firms in the network operate and in addition to various cultural factors, different levels of technology, firm size etc. Also, if the accent falls on linkages per se rather than the spatial dimension, then it is possible that cooperating firms may be situated outside the locality. In this case it would not be possible to investigate economies arising from proximity (if any).

The method finally chosen was to regard the locality as a very compact geographical area. Of the possible areas which evinced evidence of agglomeration, three were chosen for inclusion in the sample: Epping (1 and 2 as defined by the WCRSC), Blackheath (the SBDC hive) and Lansdowne (roughly the area between Lansdowne, Turf Hall, College and Vanguard roads). The WCRSC industrial area demarcations were very convenient because each of the 76 ares in the Western Cape

span on average only eight roads. Enterprises within these areas would be physically very close and operate under the same environmental and institutional conditions. This is quite important because it recognises that, due to the residual effects of the Group Areas Act, the environmental, infrastructural and institutional factors acting on an enterprise could be vastly disparate in different areas of the Western Cape. Since broadly the same environmental forces are acting on all firms within a particular location, this facilitates interfirm and inter-locational comparisons.

In additions controlling for location allows one to make use of the strong correlation between location of the enterprise and the social group of the owner (again a result of Group Areas) to ensure that a variety of social groups were sampled without actually having to stratify for this factor - Epping having formerly been a "White" area and Lansdowne and Blackheath mixed areas. A similar situation holds for firm size: the incubator role played by the Blackheath hive suggests a preponderance of younger smaller enterprises in locale, while larger enterprises are located in Epping and Lansdowne.

Each of the three areas selected contained sufficient firms so that, even after allowing for 50% of the firms approached to refuse to participate or not to meet the middle or high value market criterion, a *minimum* of 5 firms from each locality would fulfil these requirements. While the intention was to contact all the firms within these three locales telephonically to confirm conformance to sampling specifications, the targeted sample size was 20 firms. Ideally this should have been larger. Where a respondent indicated cooperation with any other firm in the vicinity, every attempt was made to include them in the survey - the respondent was asked to act as a referee.

Of the 17 manufacturers in Lansdowne, 3 refused to participate, 4 were not suitable for inclusion in the sample (their major source of revenue either come from products not made of wood like plastic or metal, or came from office and

shop fitting or joinery on windows and doors), 1 firm was agreeable and fulfilled the requirements but was not interviewed, 1 firm was not contacted and 8 manufacturers participated in the case study.

In Epping there were 12 furniture manufacturing concerns, of which 2 refused to participate, 1 was in the process of liquidation, 4 firms were not suitable and 5 firms participated.

Of the 27 woodworking concerns in the Blackheath hive, 4 refused to participate, 5 were not contacted, 3 were survivalist or operated only part-time by their owners, 8 were unsuitable (either due to the product - wendy houses and kennels - not classifiable as furniture, or because of low quality or non-wooden materials) and 7 participated.

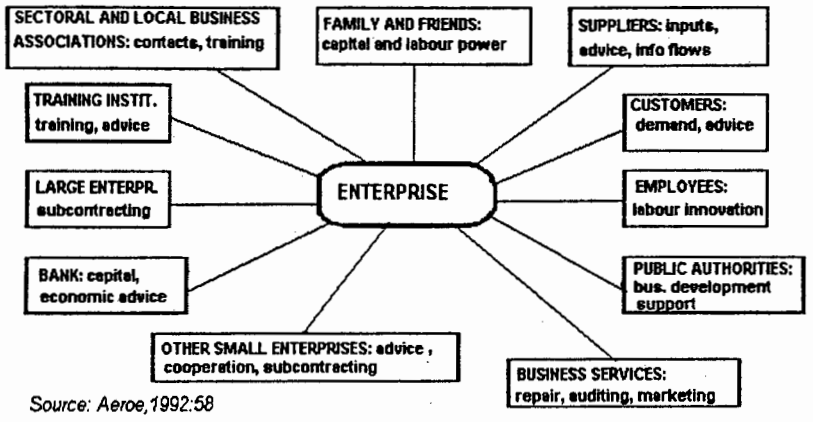
Prospective respondents who met the initial screening requirements and consented to take part in the case study were subsequently interviewed.

THE QUESTIONNAIRE

A sample of the questionnaire is attached in Appendix 2. The questionnaire was tested in a pilot study on a group of 3 furniture manufacturers. In this process, the questionnaire, which is based on the most salient aspects of the FS methodology, was refined. The researcher also gained some experience in administering it. These are not included in the reported analysis.

Aeroe (1992) represents graphically the various potential linkages between small firms and other economic entities.

Figure 5: Potential linkages between small firms and other economic entities



Questionnaire content and design were aimed at uncovering as many of these linkages as possible. In addition, information was also elicited on reasons for locating in a particular area (perceived advantages and disadvantages), entrepreneurial background, and the development and current operation of the firm.

In summary, the working definition of the small firm variant of FS used in this study includes the following elements:

INTRA-FIRM ATTRIBUTES:
- relatively diversified and changeable product range
- technology(multi-purpose machinery) and innovation (product and process)
- adaptable labour force

INTER-FIRM ATTRIBUTES:
- geographic clustering of firms with a common product range, input needs, and skills required
- cooperation within groups of firms and a variety of services accessible to all of them
- social cohesion and bounds on price competition alone

The term "microenterprise" will be used to refer to enterprises with 10 or fewer employees. The term "small business" refers to enterprises with 11 to 50 employees. "Medium-sized businesses" are those with 51 to 300 employees and "large businesses" employ more than 300 employees. As always there is an element of arbitrariness in constructing working definitions, but these were chosen in relation to the average employment across the industry of 300 employees

(Manning, 1993). Employment was chosen as an indicator of size rather than some form of asset base, due to data availability and consistency considerations.

THE INTERVIEWS

The questionnaires were administered verbally, with the responses recorded on tape and transcribed later for further analysis. Where respondents preferred not to be taped, their responses were recorded manually. This constituted the structured portion of the interview and was followed by 10 minutes unstructured conversation. The entire interview lasted on average 45 minutes.

The interviewer took great pains not to exceed this time estimate, bearing in mind the opportunity costs involved. In very large firms, every effort was be made to interview more than one person (even if telephonically).

In order to gain a clearer idea of the institutional environment in which SMEs in the Western Cape operate, unstructured interviews were conducted (telephonically and in person) with representatives of the Furniture Industry Training Board, industrial council and trade union. However, this was generally to confirm secondary sources, which comprise the major data input for this section.

Having described the research method adopted, the statement of results is presented in the next section, with some analysis[35].

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[35] Unfortunately the responses to certain questions posed in the questionnaire are not included in the statement of results. These cases are where the entrepreneur was not able to estimate the answers eg. some entrepreneurs who manufactured very varied product lines and were vulnerable to seasonality in sales were not able to estimate physical units of output per month of a particular product, but could give estimates of monetary value of sales. Other instances include the questions on entry and exit barriers (factors like good will play an important role but are not readily quantifiable). Sometimes the data collected was not strictly comparable across firms (ag wage data where job descriptions differ across firms). Also, not all the entrepreneurs where willing to divulge their monthly incomes, and in some cases (where firms were private companies) this question was not appropriate.

CHAPTER FIVE:

RESULTS OF THE SURVEY

In this section, the results of the empirical survey are presented and analysed. First a profile of the surveyed firms is built up. This covers areas like marketing, technology etc. Then a profile of entrepreneurs is presented, and finally the firm's linkages with industry associations etc. are scrutinised.

FIRM PROFILES

As can be seen from table 6, 35% of the sample were located in Blackheath (B), 40% of the sample were located in Lansdowne (L) and 25% of the firms were situated in Epping. The age distribution of all the firms in the sample is fairly even.

Table 6: Age distribution of enterprises by location

AGE IN YRS	B	L	E	TOTAL
1-5	20%	5%	0%	25%
6-10	15%	5%	0%	20%
11-25	0%	10%	10%	20%
26-40	0%	10%	5%	15%
> 40	0%	10%	10%	20%
TOTAL	35%	40%	25%	100%

Source: Own Survey, 1994 (n=20)

Yet there is considerable variation in age structure between industrial areas. Firms in Blackheath were on average much younger, all of them less than 10 years old and over half 5 years old or less. This is a reflection of the fact that all firms (except one) from Blackheath were located in the SBDC hive, which serves an "incubator" role. The average age of the firms in Lansdowne was 26 years. Firms in Epping were even more established with firm ages ranging from 17 to 60 years.

Most of the firms in the sample were private companies. However, 57% of the firms in Blackheath were sole proprietorships, the remainder being closed corporations. This is once again a function of the youth of these firms.

Table 7: Form of ownership by location

	B	L	E	TOTAL
SOLE PROPRIETOR	20%	10%	0%	30%
CC	15%	5%	5%	25%
PTY (LTD)	0%	25%	20%	45%
TOTAL	35%	40%	25%	100%

Source: Own Survey, 1994 (n=20)

In both Lansdowne and Epping, the vast majority of the firms under investigation were private companies. Despite this, management control tended to reside either with the individual entrepreneur (35% of the total sample) or within families (35% of the total sample). Family control was defined as a situation where at least 2 members of a particular family own and manage a business.

Table 8: Management control of enterprise by location

	B	L	E	TOTAL
Individ	20%	10%	5%	35%
Partner	10%	5%	0%	15%
Family	5%	20%	10%	35%
Company	0%	0%	5%	5%
Group	0%	5%	5%	10%
TOTAL	35%	40%	25%	100%

Source: Own Survey, 1994 (n=20)

Half of all the firms in Lansdowne were family controlled, some of them had been operated by the same family for 3 generations. In the Lansdowne area, these families were mainly Indian and Coloured, but there was one White family business. The one firm in Lansdowne which is currently owned by a large group, had been family founded and operated.
Despite being larger and more established, the enterprises in Epping were also controlled mainly by families and individuals. All of these were white - not surprising given the Group Areas Act and the age of these firms. One was an

independent company and another was owned by a large group.

The major product lines of these firms are represented below in table 9. The furniture category includes diningroom and bedroom suites. Upholstery is mainly lounge suites. The third category consists primarily of built-in cupboards and kitchen cupboards. The "other" category refers to components (eg cupboard doors), pine beds etc.

Table 9: Enterprise major product line by location

PRODUCT	B	L	E	TOTAL
Furniture	10%	20%	10%	40%
Upholstery	5%	5%	15%	25%
BIC/Kitchen	15%	5%	0%	20%
Other	5%	10%	0%	15%
TOTAL	35%	40%	25%	100%

Source: Own Survey, 1994 (n=20)

Respondents were asked to provide reasons for locating in a particular area. Most of the firms quoted various hive benefits (eg access to machinery, deregulation etc) and the fact that premises were available as major reasons for locating in Blackheath. A demonstration effect seems also to be operative: in one instance the enterprise was located in the hive because the owners' neighbour had located there. In another case, an entrepreneur had worked in wage employment in the hive, before going into business on his own. One respondent describes the proximity of the hive to his home as being a positive factor. 29% indicated that they intended to move in the near future to bigger premises and one of the firms felt that, given they were not dependent on passing trade, the location did not matter.

Table 10: Reasons for location in Blackheath

REASON FOR LOC	DEM	HIVE	AVAIL	DM	MOVE	OWN RES
NO OF FIRMS	2	3	3	1	2	1
% OF FIRMS	29%	43%	43%	14%	29%	14%

DEM = demonstration effects; HIVE = facilities in the hive; AVAIL = availability of premises, DM = location does not matter;
MOVE = firm intends to move soon; OWN RES = near owner's home
Source: Own Survey, 1994 (n=7)

All the above motivations clearly illustrate the Blackheath hive's character as an "artificial" sectoral agglomeration. As one would expect, there is little or no sign of local embeddedness in this instance.

The two major reasons for location in Lansdowne seems to be first its central position in relation to the markets firms are serving and in relation to transport routes, and second proximity to the labour force. In addition, nearness to the owner's residence was also seems to have played a role in choice of location. Two microenterprise owners operating from home cited rent-free premises as an advantage. In the Lansdowne area, a greater degree of "local embeddedness" (in the sense that productive activity merges into the larger life of the community) prevailed, due mainly to the overlap between the residential and industrial areas.

Table 11: Reasons for location in Lansdowne

REASON FOR LOC	C	L	OR	O	RF	M	DIS
NO OF FIRMS	4	4	3	2	2	2	1
% OF FIRMS	50%	50%	37.5%	25	25%	25%	12.5%

C = central position; L = near labour force;
OR = near owner's residence; RF = rent free premises;
M = intend moving; DIS = location disadvantageous;
O = other reasons
Source: Own Survey, 1994 (n=8)

Two of the enterprises intended to relocate in the future - one to larger premises and one to more suitable premises. One

of the firms indicated that being situated in Lansdowne was a disadvantage - this was basically because they serviced the entire domestic market. In general, nobody mentioned anything relating to external economies. Only one respondent mentioned closeness to suppliers as an attractive feature of the Lansdowne area and another one felt that clothing factory shops in the vicinity was advantageous in attracting customers.

Table 12: Reasons for location in Epping

REASON FOR LOC	C	L	IN	DIS
NO OF FIRMS	3	2	2	2
% OF TOTAL SAMPLE	60%	40%	40%	40%

C = central position; L = near labour force;
IN = inertia; DIS = present location disadvantageous
Source: Own Survey, 1994 (n=5)

In Epping, centrality with respect to transport routes and markets and proximity to the labour force were cited as major reasons for location. Two of the firms felt that locating in Epping was a disadvantage since most of their sales are upcountry. Sheer inertia seems also to be a factor in choice of location - often enterprises remain in less than ideal locations which the founder of the firm had chosen.

In short, the entrepreneurs do not perceive external economies as being important in selecting a location. It is quite surprising that more entrepreneurs did not mention proximity to suppliers as a locational advantage, given the bulkiness of the wood and other raw materials. In all three areas under observation there were at least 2 timber suppliers (eg Lansdowne Board, Lumber City, Federated Timbers and PG Bison etc).

Also one would have expected Group Areas restrictions to have been a factor in firm location, especially for the more established Indian and Coloured owned firms. However, this was not alluded to at all.

As can be seen from table 13 below, 40% of firms in the sample were microenterprises, 35% were small businesses, 15% were medium sized businesses and the remaining 10% were large businesses. There is a huge difference in average monthly sales of small businesses (approximately R120 000 to R150 000 a month) with those of medium-sized businesses (which had average monthly turnovers between R 1000 000 and R6 000 000) and large enterprises which have turnovers of more than R5 000 000.

Table 13: Volume of monthly sales by size of enterprise

	Number of Employees					
SALES IN R	1-10	11-50	51-150	151-300	>300	TOTAL
< 20 000	15%					15%
20-39 000	20%					20%
40-59 000	5%	5%				10%
60-79 000		5%				5%
80-99 000		5%				5%
100 - 249		15%				15%
250 - 999		5%				5%
1m - 5m			5%			5%
> 5m			5%	5%	10%	20%
TOTAL	40%	35%	10%	5%	10%	100%

Source: Own Survey, 1994 (n=20)

Most of the respondents reported a distinct seasonality in sales. Nevertheless, there does seem to be an positive relationship between firm size and sales volume. What is interesting is the wide variation in sales in the small firm category. This seems to depend not only on the size of firm, but the niche the firm is situated in.

Table 14 depicts the geographic areas served by firms in the sample. The vast majority of the sampled firms restrict their activities to the Western Cape. Sometimes this is dictated by the nature of the product (eg built-in cupboards that require

installing) or else a conscious decision by the very upmarket firms to serve only the local market. The firms which serviced the entire local market tended to sell to the large retail chains. In general it was these firms that reported disadvantages in being located in the Cape.

Table 14: Geographic markets served by firms

REGION	B	L	E	TOTAL	PERCENT
WC	6	5	1	12	60%
CAPE			1	1	5%
SA	1	3	3	7	35%
NAMIBIA	1	2	1	4	20%
ANGOLA		1	1	2	10%
OTHER AFR	1		1	2	10%
UK/US		1	3	4	20%

Source: Own Survey, 1994 (n=20)

A few firms in the sample did export, but this did not, in general, constitute a significant proportion of output. However, it is quite remarkable that 40% of all the firms did export at all - this may be because the sample concentrated on middle and high value added firms. As can be seen in table 15 below, even micro-enterprises (less than 10 employees) and small businesses (11-50 employees) were involved in exporting to neighbouring states.

Table 15: Exports by firm size

NO OF WORKERS	AFRICA	UK/US	TOTAL
1-10	1		1
11-50	1		1
51-150	1	1	2
151-300		1	1
>300	1	2	3
	4	4	8

Source: Own Survey, 1994 (n=20)

This suggests that even smaller firms may have the potential to penetrate markets in neighbouring states. Stimulating exports (especially by SMEs) to other African countries is a policy option which should be investigated further.
As one would expect, only medium (51-300 employees) and large (more than 300 employees) firms were engaged in overseas sales.

In order to assess the cashflow status of the firms under study, respondents were asked to describe the cashflow situation prevailing in the firm. In table 16 this is shown as good, acceptable or poor. The table also illustrates the conditions of sale of output (either cash [C] or terms [T]) and the conditions of purchasing inputs (also either cash or terms). Firms were also asked to describe what sort of budgeting and cashflow procedures were implemented: either informal procedures, or simple, basic procedures or sophisticated computer based procedures. Access to credit was also examined: N = no access to bank credit; YN = bank credit having access to bank loans etc but do not use them by choice, Y = access to credit, but it is not used extensively, YE = some firms use overdraft and bonds etc.

Table 16: Cashflow and firm strategies

CASHFLOW STATUS	METHOD	SELL PRODUCT	BUY INPUTS	CREDIT AVAIL	NUMBER OF FIRMS
Good	Basic	T	T	YN	1
Good	Basic	T	T	Y	1
Good	Soph.	T	T	YE	3
Accept.	Inf.	C	T	Y	2
Accept.	Inf.	C	T	YN	1
Accept.	Inf.	C	T	N	1
Accept.	Inf.	C	C	YN	1
Accept.	Inf.	T	T	YN	1
Accept.	Basic	C	C	Y	1
Accept.	Basic	T	T	Y	2
Accept.	Soph.	T	T	YE	2
Unsatisf.	Inf.	C	C	YE	1
Unsatisf.	Inf.	C	C	N	1
Unsatisf.	Inf.	T	C	YE	1
Unsatisf.	Basic	T	T	YE	1

Source: Own Survey, 1994 (n=20)

The above table seems to suggest that cashflow management techniques seem *not* to be decisive in determining the health of the cashflow state, although they may enhance or detract from performance.

Only 10% of the sample did not have access to credit facilities, 25% had access to bank credit facilities but did not use them, the remainder did use bank credit extensively. A more significant determinant of cashflow status seems to be the marketing strategy pursued by the firm. In the 15 firms whose cashflow situation was rated good or acceptable, the strategies followed were 1] terms with both suppliers and customers; 2] cash to both suppliers and customers and 3] cash to customers and terms with suppliers and the use of overdrafts to cover bridging costs. These strategies decrease the need for overdraft and other facilities, by passing some of the financing of the working capital onto suppliers. In the

one case where terms were extended to customers but suppliers demanded cash, cashflow was rated as unsatisfactory despite the availability of overdraft financing. Thus 16 out of 20 cases can be "explained" by looking at the firm's pricing and purchasing policies.

The effect of the availability or lack of access to credit facilities cannot be evaluated independently of the purchasing and pricing policies followed by the firms. Only in one instance did a lack of credit access impact negatively on the state of cashflows but this was exacerbated by marketing policies that engender an extended lead time between cash outlays on inputs and cash receipts from sales. Overall, cashflow in the total sample is quite good, especially given that the industry is only beginning to emerge from a severe recession. However, this sample was quite small and may not be representative of the entire industry. In addition, only middle and high value added producers were sampled, and these tend to weather recessions better, by concentrating on a particular market niche.

While nearly all the firms in the sample produce furniture which ultimately is aimed at the middle to upper income consumers, it is interesting to note which are the firms *immediate* customers and how this relates to marketing techniques used and choice of location.

In the table below, FC denotes the final consumer, IR the independent retailers which are not part of the large retail chains, RC the retail chains, M component sales to other manufacturers, O denotes other customers. These would include restaurants, hotels and hospitals. There are, of course, firms which target two or more of these categories. In these cases, that market segment which constitutes the primary focus of the firm is placed first, followed by secondary market segments. The table thus gives a fairly good indicator of the way in which firms have diversified their target markets.

Table 17: The direct market of sampled firms by location

CUSTOMER	B	L	E	TOTAL
FC	5%	10%	0%	15%
IR/FC	10%	5%	5%	20%
RC	5%	5%	5%	15%
IR/RC	5%	5%	0%	10%
IR/RC/FC	0%	5%	5%	10%
O	0%	5%	5%	10%
FC/O	10%	0%	0%	10%
RC/FC	0%	0%	5%	5%
M	0%	5%	0%	5%
TOTAL	35%	40%	25%	100%

Source: Own Survey, 1994 (n=20)

More than half of the firms in the sample have a diversified target market. This has been partly as a result of the strategies firms have developed to deal with the prolonged recession. Direct contact with the final customer generates sales with higher margins than sales to the retailers. About 45% of the sample sell directly to the final customer, either through showrooms or furniture factory shops. In the remaining cases the nature of the product (eg built-in cupboards and kitchens) necessitates direct sales to the final customer. 40% of the total sample considered the independent retailers to be their principle market. In most cases this strategy was adopted by the smaller firms (either because they could not gain access to the large retailers or more often because they were not prepared to handle the lumpy demand, large volumes and stringent terms set by the large retail chains). Makers of the more exclusive types of furniture tended also to sell direct to the final customer or the independents. This enables them to produce a highly customised product.

Of the 8 firms who sold to the retail chains, 5 (63%) were small firms employing between 10 and 55 employees. Three of these were very well established firms under family control. The ownership of these small firms which sell to the retailers

is not concentrated in any one social group. In fact, in this particular sample was an Indian, a Coloured and a White family controlled firm - all of which had three generations of experience in the furniture business. The average age of these businesses was 25 years, which suggests that the ability to build up a reputation for reliability and connections within the industry plays an important role in dealing successfully with the retail chains.

The other 3 firm who sold to the retail chains (37%) all employed more than 300 employees, and were all older than 25 years. Two of these were affiliated to a large furniture manufacturing group and the other was still family controlled.

So it seems that the larger firms deal quite well with the retail chains, and also, more surprisingly, adequately capitalised, well established smaller firms.

Only one firm (5% of the total sample) was engaged in the production of a component which was sold to other manufacturers for final assembly. This low figure indicates a distinct lack of vertical disaggregation so characteristic of the Third Italy. This issue is addressed in greater detail later on.

The FS paradigm indicates that smaller firms can be competitive where competition is based on a range of factors (like quality and service) rather than solely price. Yet the definition of quality is extremely nebulous - for example one commonly quoted definition of quality is conformance to market requirements. In the survey respondents were asked what their critical success factors were (i.e. what distinguished their product from those of competitors). They were then asked to compare the prices of their products relative to competitors. Firms were only regarded as competing on quality or service if they specifically state that this was an element in their competitive strategy *and* this allowed them to charge a premium on their product (their products commanded a higher price than competitors in the same market). The results are depicted below in table 18. Respondents were also asked to describe the degree of differentiation of their products and these were

classified as low, medium or high. One would expect more quality oriented firms to exhibit a medium or high degree of differentiation.

Table 18: Critical Success Factors by price relative to competitors and Degree of product differentiation

	PRICE <	PRICE =	PRICE >	TOTAL	L	M	H	TOTAL
Quality	0%	0%	30%	30%	0%	10%	20%	30%
Quality, Service	0%	5%	0%	5%	0%	15%	10%	25%
Service	0%	10%	20%	30%	5%	0%	5%	10%
Quality, Price	0%	10%	0%	10%	10%	10%	0%	20%
Price, Quality/Service	5%	10%	10%	25%	10%	5%	0%	15%
TOTAL	5%	35%	60%	100%	25%	40%	35%	100%

Source: Own Survey, 1994 (n=20)

In general, most of the respondents who claimed that competition was based on quality or service were able to command a premium in the market. In certain segments this was very slight, in the most exclusive segments this was substantial. 60% of the total sample competed on quality or service and were able to command a premium in the market. Service in this context refers mainly to reliability of delivery and after-sales repair or replacement of defective products. These firms tended to be in market niches which required considerable capital outlay to enter, and thus competition, while still intense, is not as formidable as in the middle market where barriers to entry are much lower.

In 35% of the total sample, firms competed on service and quality, sometimes together with price, but were not able to command a premium in the market. These firms tended to produce for the middle income markets which is reflected in their use of materials (composite boards rather than solid woods, imitation leather rather than real leather etc). They are

mainly involved in producing built-in cupboards (BICs) and kitchen units. In this market segment price competition is particularly fierce given the low barriers to entry. Built-in cupboards require virtually no design ability, nor is specialised machinery required to produce them. In fact the large suppliers cut boards to specification for little or no extra cost - so all the firm would have to do is to assemble and install the units. Retrenchments in furniture industry coupled with the low barriers to entry, have made this segment particularly contestable and price sensitive. This is, as mentioned before, exacerbated by a low degree of product differentiation. However, one firm in the sample produced "designer" kitchens with solid imported woods and imported built-in appliances. The design-intensive nature of the highly customised product enables this firm to secure a substantial premium.

As regards product differentiation and breadth of product range, the 65% of the sample who claimed to compete on quality and/or service, all (except one firm) displayed either a medium or high degree of product differentiation. Conversely, competition on price seems to be associated with less product differentiation, because of the nature of the product (BICS) or economies of scale from producing in large batches. However, the in-house design capacity of virtually all these firms are uniformly poor. The vast majority (70%) of firms use informal "back-of-an-envelope" design procedures. Only 20% of firms sampled had formal prototype departments and these were all medium to large firms who sold to the retail chains. In 10% of the firms, one of the partners specialised in design.

Table 19: Methods of design

METHOD	FIRMS	PERCENT
Informal	14	70%
Prototype Dept	4	20%
Partner in design	2	10%
	20	100%

Source: Own Survey, 1994 (n=20)

Given that the vast majority of firms do not possess significant inhouse design capacity, it is interesting to note what the sources of ideas for design are.

Table 20: Sources of design by method of design

	Proto	Mod	Cust	Overs	D/DE	ND	Tradit	
INF	21.4%	42.9%	50.0%	14.3%	0%	28.6%	14.3%	n=14
PD	100%	25%		50%	50%			n=4
DP			100%	50%	50%			n=2

Source: Own Survey, 1994 (n=20)

Of the firms who used informal design methods, just over 20% did make use of prototypes. For this section, the most important sources of design are suggestions from customers (these include retail chains as well as final consumers), modification or copying of designs seen elsewhere, 14% produced traditional designs (eg Queen Anne, Cape Cottage etc). The product of others was such that very little design was required (eg BICs) and only 14% followed overseas trends.

Even in the larger firms, imitation seems to be the order of the day, only two of the firms employ a full-time designer or design engineer.

All this seems to confirm South Africa's status as a follower in the furniture industry, rather than a design leader. This situation arose because all the firms are oriented primarily towards the local market. The South African market is extremely conservative and tends to follow overseas

markets with a lag. Thus catering to the domestic market did not require the development of design capacity - merely a subscription to an overseas magazine or occasional visits to overseas trade shows.

Michael Porter's "demanding" and sophisticated customers, one of the key pillars of the "diamond" paradigm, was completely absent in South Africa. While tariff structures etc limited the degree of foreign competition and firms were inwardly oriented this was not too great a disadvantage. But with increased foreign competition and attempts by local firms to break into overseas markets, this could be a major disadvantage, especially since there are externalities associated with design eg learning-by-doing, and reputation and brand recognition effects.

In table 21, the relationship between firms and their customers were classified either as stable ongoing relationships (generally with the retail chains, independent retailers and regular final customers) or casual one-off relationships (final customers, hotels etc).

Table 21: Marketing media by type of customer relationship

	Proto	PC/WoM	Ads	Rep	Shows	Cust DB	RC
Stable	35%	45%	10%	10%	0%	20%	20%
1 - off	0%	35%	30%	5%	10%	0%	0%
TOTAL	35%	80%	40%	15%	10%	20%	20%

Source: Own Survey, 1994 (n=20)

The use of personal contact between the entrepreneur and prospective customers and word of mouth was cited as important marketing methods by 80% of all respondents. In fact, in 25% of the sample this was the *only* form of marketing undertaken. The firms in question were generally well known and had established a reputation over the years.

Most of the firms who sold to the retail chains tended to have a stable (if not always amicable!) relationship with the chains. Use of prototypes, personal contact and sales representatives are important in reaching this segment. Note

that expenditure on marketing is relatively limited. Most retail chains also include the manufacturer's name and logo in their brochures, at a small charge.

For firms which serve a high income customer base, repeat customers are encouraged by making use of a customer database. Firms which sell to hotels and restaurants, etc, also compile installed lists of previous clients which are circulated on request among prospective customers.

For firms who have a one-off relationship with their customers, advertising is relatively more important, as can be seen in table 21. Here, word of mouth and referrals from satisfied customers play an important role. A small percentage of firms (10%) had also displayed exhibits at trade shows like the Design For Living Show.

Having examined the firms' relationships with their customer bases, now the focus shifts to supplier relationships. Based on the premise that building stable relationships requires time, table 22 shows the nature of the supplier relationship and the age of the firm.

65% of the total sample reported armslength relationships with their suppliers, shopping around for the best prices. The vast majority of these firms were very young, less than 8 years old. Only one firm reported personal networks as a means of access to inputs (ie use of connections to obtain supplies at favourable rates).

Of the 25% of the sampled firms who reported stable relationships, all were older than 15 years old. One firm had been using the same suppliers for 35 years and described their relationship with their suppliers as "a good marriage" - and in this case there was even some evidence of innovation on the part of their suppliers, to meet the firm's specific requirements.

Some of the larger firms, however, tend to play suppliers off against each other to get more competitive prices. A comment by one of the respondents illustrates this point quite vividly "We try to screw the suppliers for better prices all the time" and "... play one up against the other like the retailers do

to us as well"[36] . However, where certain core inputs were absolutely essential to production, relationships with these suppliers tended to be more stable.

Table 22: Supplier relations by firm age

RELATIONSHIP	AGE OF FIRM (yrs)	NUMBER	PERCENT
Stable	> 15	5	25%
Armslength	1-8	8	40%
	> 20	3	15%
Play them off	7	1	5%
	> 20	2	10%
Pers. Network	1.5	1	5%
TOTAL		20	100%

Source: Own Survey, 1994 (n=20)

As far as suppliers of business services was concerned, 85% of all firms in the sample outsourced maintenance. Most of the small firms made use of external bookkeepers and auditors, but the medium and larger firms all had separate accounting departments.

There was surprisingly little variation in technology across enterprises. The microenterprises made greater use of handtools, but nearly all of the small firms had industrial production machinery (eg spindles, bandsaws, thicknessers etc) as well. The medium and larger firms used exactly the same industrial production machinery, but in greater quantities. Some firms did however possess certain highly specialised machines[37]. In general, the uniformity in technology results in capital widening rather than capital deepening.

One of the great advantages enjoyed by the furniture

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[36] personal interview with Tania Ajam, 7 September 1994

[37] For example, one small firm had machinery which could produce 6 fancy chair legs in 7 minutes. Each of these legs when turned on a bandsaw, would take on average 20 minutes each.

districts of the Third Italy is the existence (within the furniture clusters) of producers of machinery used in furniture manufacture. In fact Italy is one of the world leaders in woodworking machinery. The same can be said for Denmark - Kristensen (1992) describes how the structure of small machine shops means that prototypes and experimental production equipment can be developed quickly and this, of course, favours innovation. In the South African furniture industry, most of the machinery is imported. This seems to be the rule rather than the exception for most South African industries and could be an important factor inhibiting future competitiveness.

This lack of technological innovation is also evidenced in the use of computers. Nearly half (45% of the total sample) did *not* use computers at all. Of the remaining 55% of the sample which did use computers, these were used mainly for administration (invoicing, wordprocessing etc) and accounts. The larger firms also tend to use computers for inventory control and production planning, but not in the actual production process.

Table 23: Computer usage by firm size

NO OF EMPLOYEES	NO	ADMIN	ACC	INV	PP	COST	MKT	CFLO	EQUIP
1-10	40%	10%	10%				5%		
11-50	5%	10%	15%	10%	5%	5%	5%	5%	5%
50-100		15%	15%						
150-300		5%	5%	5%	5%				
> 300		10%	10%	10%	5%				
TOTAL	45%	50%	55%	25%	15%	5%	10%	5%	5%

Source: Own Survey, 1994 (n=20)

What is really interesting is that, of the 8 microenterprises in the sample, 2 (25% of all microenterprises and 10% of the total sample) use personal computers in managing the business. Besides using the personal computer for administration and accounting, one of these microenterprises also formulated a

rudimentary marketing system based on a customer record database. Another interesting observation is that in the case of these microenterprises, the entrepreneur's wife was computer literate and managed the business administration side of the business. In fact, in 25% of all businesses surveyed, the entrepreneurs' wives played valuable administration support roles and even, in some cases, assisted in marketing the firm's product.

The most outstanding example of innovation was encountered in a small firm where the entrepreneur wrote and maintains a robust computer system which is used not only for administration
and accounting purposes, but also for production planning and inventory. The inventory system is linked to a costing system which also warns when payments are falling due, hence assisting in cashflow forecasting. Finally the order administration is linked to a customer database which records customer name, address, date and nature of the order as well as how the customer came to hear about the firm (eg referrals, adverts etc). This facilitates the construction of a customer profile which influences future marketing efforts.

While a few of the firms surveyed felt that Computer Aided Design and Computer Aided Manufacture (CAD-CAM) were possible future opportunities, none were prepared to venture into it at this point. This risk-aversity is quite understandable when one considers the uncertainty surrounding technological transfer. This is exacerbated by a lack of in-house software support etc.

In Italy, the family structure seems to operate as an intergenerational conduit for experiential "learning-by-doing" knowledge (which would otherwise dissipate should the firm be dissolved) and as a means whereby the linkages between the firm, its suppliers, customers and "competitors" are strengthened over time. At the same time they retain a high degree of openness to innovative techniques introduced by sons who received a higher degree of technical training than their artisan fathers. This happy combination provides the capacity

for continuous incremental upgrading.

In South Africa, entrepreneurs heading family firms may have a lower level of formal training (despite being competent craftsmen), and experience in production rather than management. If the family business is regarded as part of the patrimony to be protected and not exposed to undue risks, then surpluses derived from the business might be invested in tangible assets like larger premises, real estate and other fixed assets rather than research and development, or other forms of intangible investment. For example, one third generation family firm has achieved considerable success based on imitating designs or modifying them slightly, as well as producing products of a reasonable quality cheaply. However, most of the family profits have been channelled into acquisition of real estate. This is a classic case of insufficient information, and could be an area of policy intervention. On the other hand, in another third generation family firm in the sample, the grandson had some engineering experience and was able to introduce several technological innovations, including a computer system which amongst other things keep track of tools and equipment for insurance purposes etc. On balance, it is extremely difficult to draw anything more than tentative conclusions about the impact of family structures on SME performance. However, any type of industrial policy broadly consistent with the FS paradigm, would have to consider how to re-orientate existing societal structures towards dynamic innovation. In the furniture industry, certainly, this is definitely an area for further consideration.

Respondents were asked if their firms had in the last 12 months been able to invest in new machinery, skills upgrades or any other form of technology. Only 30% of the firms responded positively, most citing the prolonged recession as a factor inhibiting investment. Most investments made was in the acquisition of new machinery. Only one firm (5% of the sample) which was affiliated to a large furniture group reported ongoing R&D in new epoxies, stains and leathers.

All the firms except one micro-enterprise paid their employees at wage rates at least equal to the minima set by the industrial council. Some of the microenterprises even paid more than the going rate to employees in lieu of non-wage benefits. The labour force was mainly coloured, and mostly males. Females were engaged mainly in upholstery as seamstresses and for the final hand polishing of furniture - a task which requires some dexterity and cannot apparently be performed by machine.

Most of the training received by workers was on-the-job training. A quarter of the sample (mainly the larger firms) did have formal apprenticeship programs as well. Most of the employees in the micro, small and medium-sized enterprises were extremely versatile and a considerable amount of job rotation takes place - very much in the "craft" tradition. Only in the very large enterprises was the production process broken down into single phases which a worker performed. For example a wood machinist used to be able to set up, maintain and operate his machine. The "mass production" approach would entail introducing a separate team of "setters" and "operators" etc.

35% of the sample reported implementing no health and safety measures (these were mainly microenterprises and small businesses). 35% of the sample (mainly small firms) reported basic precautions (eg covers on machinery, spraying masks, first aid kits etc - the bare minimum). The remaining 30% of the sample had quite advanced health and safety procedures - most of them had three star NOSA ratings.

50% of all firms reported extremely stable workforces with relatively low turnover rates. In some of the family-owned firms and individually owned firms, workers with a length of service of between 10 and 30 years were not uncommon. The industrial relations style in most of these firms has been paternalistic rather than conflictual in the past. However, many of the respondents perceive the recent increase in industrial action in the furniture industry as an erosion of worker loyalty built up over the years (especially in family

or individually owned firms).

ENTREPRENEUR PROFILES

This section attempts to give some idea of the background of entrepreneurs in the furniture trade, their educational attainments and ages. Of the 20 firms surveyed, in 16 cases the original founder of the business or his direct descendants were still running the business. This section deals with these 16 respondents.

Table 24: Entrepreneur education profile

HIGHEST STD	% of Entrepr.
6-8	18.75%
6-8 & Apprent.	37.5%
9-10 (technical)	12.5%
9-10 & Apprent	6.25%
Diploma	6.25%
Degree	6.25%
Overseas Appr	12.5%
	100

Source: Own Survey, 1994 (n=16)

The most common career path for entrepreneurs was initially some sort of apprenticeship, followed by working in wage employment in the furniture or building industry for a period of time. Having accumulated sufficient experience, contacts within the trade and capital, started the entrepreneur goes on to establish his own business. 56,25% of all the entrepreneurs followed this route. 18.75 had attained matric and 12.5% had post matric qualifications. The distribution of formal education was roughly similar across population groups. The White entrepreneurs, however, did mention having gone to technical schools - an option not mentioned by any of the Coloured or Indian entrepreneurs. All entrepreneurs in the

sample were male and this seems quite representative of the industry as a whole.

Table 25: Age of entrepreneur by population group

AGE	W	I	C	TOTAL
21-24	6.25			6.25
26-30				
31-35	6.25			6.25
36-40	6.25	6.25		12.5
41-45	6.25		6.25	12.5
46-55	12.5	6.25	12.5	31.25
>55	18.75	6.25	6.25	31.25
TOTAL	56.25	18.75	25	100

Source: Own Survey, 1994 (n=16)

As shown in the above table, more than half of all the entrepreneurs surveyed were white, a quarter of the sample was coloured, the remainder being Indian. This was mainly due to the Group Areas restrictions which designated certain areas as available to certain population groups only. While the Act itself has been repealed, it did influence choice of location for the more enterprises established during its period off enforcement. Thus all of the entrepreneurs in Epping were White and the vast majority of entrepreneurs in Lansdowne were Indian or Coloured.

Entrepreneurs were also asked to list the reasons why they were running their own businesses. Their responses are summarised in table 26.

Table 26: Entrepreneurs' motivation for involvement in the firm

REASONS FOR STARTING	NO OF FIRMS	PERCENT
Own Boss, Indep, Better prospects	7	43.75%
Hobby, aptitude, satisfaction	4	25.00%
Retrenchment	3	18.75%
Family concern	2	12.50%
	16	100%

Source: Own Survey, 1994 (n=20)

This seems to indicate that the vast majority of the entrepreneurs sampled were prompted to start their own businesses for reasons of personal satisfaction (to be their own bosses, because they had a talent for woodworking etc), rather than in order to survive. 12% carried on the family business from their fathers and only 18% were forced, through retrenchment, to start their own businesses. These responses seem to confirm the impression gained in interviews that these entrepreneurs have highly individualistic goals and strategies.[38]

To cross-check the inference that "survivalist" motives were not the main reason for continuing to operate the business, entrepreneurs were asked whether they would accept wage employment if they were guaranteed incomes similar to those the businesses were generating. 81% of the 16 entrepreneurs answered unequivocally no, which confirms the above conclusion. One of the respondents stated that he would accept wage employment, but doubted whether any firm would pay him the roughly R6 000 per month income the business was generating, given that he only had a Std 8 certificate. Another respondent would accept wage employment, but that he

[38] In the 4 larger firms in the sample, the current management were not the founders or owners of the enterprise. Although "corporate culture" is a nebulous concept and extremely subjective, the general impression gained was that the corporate culture was very individualistic rather than cooperative.

had trained his son to take over the business. Only one of the respondents really regretted going into business on his own.

Even those entrepreneurs who had entered the industry as a result of retrenchment generally would not accept wage employment. Entrepreneurs were also asked to describe what background they had had in the industry prior to running their own businesses.

Table 27: Entrepreneur's background in the furniture industry

BACKGROUND IN INDUSTRY	NUMBER	PERCENT
Family	3	18.75%
Worked in a factory	8	50.00%
Hobby	2	12.50%
Building Industry	2	12.50%
No background	1	6.25%
TOTAL	16	100%

Source: Own Survey, 1994 (n=20)

This question is very similar to the one on reasons for starting the business, and the responses generally correspond with that of the previous question.

The picture of these entrepreneurs are that they have at least 10 years of formal schooling, often supplemented by an apprenticeship and long work experience. More than half were older the age of 45 and nearly all had entrepreneurial rather than survival motivations for starting the business.

ENTERPRISE LINKAGES:

Firms were asked whether they were involved in any sort of subcontracting for another firm. In the strictest sense of the word, subcontracting refers to a situation where the party offering the subcontract requests another independent enterprise (the subcontractor) to fulfil either partially or fully an order it has received instead of producing itself to meet the order. There is generally also a contract between the two parties setting out the details of the order (price,

quantity and other specifications), which distinguishes subcontracting from the purchase of ready-made components. The definition used here is very broad and would include subcontracting based on verbal or informal contracts as well as any other forms of vertical disaggregation (defined loosely in this instance as all other forms of production of an intermediate good which is an input to another phase of the production process).

The greatest proportion (65%) of the total sample did not subcontract for any other enterprise. A quarter of the firms surveyed did occasionally subcontract for other parties, but this constituted only a minuscule proportion of total output. Here the motive for subcontracting rests mainly on personal relations - it is done more or less as a favour by the entrepreneur to other manufacturers he knows quite well. The reasons why these transaction takes place is either because the respondent has specialised machinery not available to those he subcontracts for, or because the respondent engages in a phase of the process which is complementary to that of the party he is subcontracting for (eg. an upholsterer would upholster a frame for another party).

In only 10% of the firms was subcontracting for other enterprises a major form of revenue - both involved in making components which were sold to other firms for final assembly - the one firm specialised solely in cupboard doors (sold to other manufacturers), and the other produced the wooden part of pine kitchen units, to which a hardware chain added a metal sink and sold. Given that only a very limited subset of the total sample were engaged in subcontracting as a primary source of income generation, it is very difficult to draw any definite conclusion from the empirical evidence regarding the nature of subcontracting relationships (ie capacity enhancing or exploitative) in the region as a whole. However, in the two instances sampled, subcontracting was clearly profitable. The entrepreneurs in question did retain a considerable degree of independence by subcontracting for several firms simultaneously, rather than being dependent on a single firm

for orders.

Table 28: Enterprises acting as subcontractors by location

	B	L	E	TOTAL
No subcontracting	10%	35%	20%	65%
Occasionally	20%	0%	5%	25%
Yes	5%	5%	0%	10%
TOTAL	35%	40%	25%	100%

Source: Own Survey, 1994 (n=20)

None of the firms in Epping subcontracted for other firms, and only a small proportion of those in Lansdowne. However within the Blackheath hive, 70% of the firms were engaged in subcontracting for other firms in the vicinity. Thus there seems to be a denser transactional web in the Blackheath hive. This is quite remarkable given that the hive is, in a sense, an artificial agglomeration. Here spatial proximity does seem to have played a role in diminishing transaction costs, but this seems to be a necessary but not sufficient condition for dense transactional networks. In Lansdowne and Epping most of the respondents were literally a stone's throw away, yet in these cases mere proximity did not result in any "thickening" of transactional relationships.

Firms were then asked whether they subcontracted out any of their own production. About 50% did, and they were asked their reasons for subcontracting out. In most cases the subcontracted work either did not constitute a major proportion of output, or work was not subcontracted out on a regular basis .

Table 29: Reasons for subcontracting out

REASON FOR SUBCONTRACTING	NO OF FIRMS	PERCENT
Complementary	5	50%
Demand smoothing	3	30%
Family	1	10%
Cost	1	10%
	10	100%

Source: Own Survey, 1994 (n=10)

The major reason for subcontracting is that the subcontractor could perform either a complementary phase in the production process[39] or because the subcontractor produced a product which complemented the subcontracting party's product line[40].

30% of those who did subcontract mentioned demand smoothing as reasons for subcontracting. These were generally larger firms which, due to an upswing in demand, find themselves capacity constrained.

Two other minor reasons for subcontracting were because the subcontractor could produce at a lower cost, and secondly because the subcontractor was a family member who could be relied upon.

Nobody mentioned currently using subcontracting as a means of reducing wage related costs (eg administration costs, reduction of expenditure on health and safety and non-wage benefits etc). However one of the larger companies suggested that this was an option which could not be entirely rejected in the future, given the increased industrial action in the furniture industry. Another related issue is the question of down-sizing. One of the small family owned firms mentioned the possibility of retrenching their entire workforce and starting

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[39] As mentioned before, a furniture manufacturer producing period furniture frames, for instance, would subcontract that out, or a firm producing solid oak kitchens would subcontract out the polished marble tops etc

[40] For example, one enterprise specialised in the production of chairs only. Yet, in order to provide the customer with a "package deal" they would even collaborate with their competitors if they manufactured a complementary product.

up again on a much smaller scale should wage pressures threaten the viability of the enterprise. Another individually owned firm in the sample had already done so. It is not possible to ascertain how widespread this phenomenon has been in the past, but it merits further investigation.

The remaining respondents in the sample (50%) who did not subcontract out at all were asked to provide reasons why they did not do so. These are summarised in table 30 below:

Table 30: Reasons for not using subcontractors

REASON FOR NOT SUBCONTRACT	NO OF FIRMS	PERCENT
Std of Quality, Delivery	6	60%
Nature of product	3	30%
Personal preference	3	30%
Insufficient Volume	2	20%
Stealing of Designs	1	10%

Source: Own Survey, 1994 (n=10)

The major reason for not making use of subcontracting is uncertainty about whether subcontractors could produce to the agreed upon quality and delivery specifications (60% of the respondents). The monitoring costs involved were thus considered prohibitive.

About 30% of all respondents described the nature of their product as being too simple to allow much vertical disaggregation - for example those manufacturers who were already producing components or those producing melamine BICs which are basically just boxes.

30% of the respondents cited a personal preference for and satisfaction from undertaking the entire production process.

Other reasons for not subcontracting included that the respondent did not produce sufficient quantities of a single product to make it worthwhile to engage a subcontractor (again the perception here is of subcontracting as demand smoothing).

Finally, one respondent did mention the possibility of subcontractors stealing the firm's design.

A respondent firm which did engage in subcontracting, mentioned that it would like to increase the volume of subcontracts, but that it was uncertain as to the status of subcontracting, given that the Industrial Council agreement prohibits outwork (and piece-work).

Respondents were then asked whether they participated in any other forms of inter-firm cooperation[41], besides issues relating to subcontracting. 70% reported no other forms of cooperation at all. 15% reported some sort of information sharing on an informal basis with other manufacturers. The remaining 15% cooperated mainly through the borrowing of equipment and with regard to access to inputs. So the level of interfirm cooperation is very low. Information is seen as something to be hoarded. Horizontal cooperation was virtually absent in the sample. Across all firm sizes competition was described as cut-throat. One manufacturer aptly summed up the prevalent attitude: "We don't go to bed with our suppliers ..."[42]

INSTITUTIONAL COOPERATION

Having examined the extent of inter-firm cooperation (or lack thereof!), this section will briefly focus on institutional cooperation. The experience of the Third Italy, Denmark and other industrial districts have underscored the important role of various institutions (both formal and informal, public and private sector) in engendering inter and intra-firm cooperation.

Respondents from firms in the sample were asked whether they were affiliated to any industry association. The responses of

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[41] This was an extremely difficult point on which to elicit information. Virtually all respondents said they did not cooperate at all initially, but when asked if they did this, or that, turned out to be cooperating after all, albeit to a limited extent!

[42] Personal interview with Tania Ajam, 7 September 1994

firms are represented below:

Table 31: Affiliation to industry associations by firm size

AFFILIATION	1-10	11-50	51-150	>150	TOTAL
FURN IC	5%	15	0%	0%	20%
BUILD IC	5%	5	0%	0%	10%
CFMA/ChCom	0%	15	5%	15%	35%
BTA	5%	0	0%	0%	5%
NO	30%	0	0%	0%	30%
TOTAL	45%	35%	5%	15%	100%

Source: Own Survey, 1994 (n=20)

There is a surprisingly high degree of linkages to industrial bodies: 65% of all the firms in the sample were party to the Furniture Industrial Council, the Building Industry Council, and the Chamber of Commerce and/or the Cape Furniture Manufacturers association. Only the microenterprises reported no affiliations to any outside entity (30% of the total sample). One third of all microenterprises in the sample reported that they were affiliated to the Industrial Councils or the Blackheath Tenants Association in the Blackheath Hive.

This high degree of linkage is mainly due to the fact that firms are legally obliged to be party to the Industrial Council once a threshold limit of 4 employees is attained[43]. It is interesting to contrast this high degree of affiliation with the perceptions furniture manufactures have of these organisations.

Respondents were asked if they felt that these organisations represented their interests adequately.

[43] Certain SBDC Industrial Hives are exempted from various provisions of the Wage Act, Basic Conditions of Employment Act and the Machinery and Occupational Safety Act, including the Blackheath hive

Table 32: Entrepreneur sentiment with regard to existing industrial associations and their representivity

RESPONSE	NO OF FIRMS	PERCENT
Big firms only	2	10.5%
No	2	10.5%
No benefits	3	16%
No experience/Don't know	7	37%
Indifferent	2	10.5
Yes	2	10.5
Other (participation)	1	5%

Source: Own Survey, 1994 (n=19)

The attitude of manufacturers to these organisation was quite negative in general. 37% of the sample felt that industry associations were not representative of their interests. These were mainly microenterprises and small businesses who either felt that these associations were geared to the needs of bigger businesses exclusively. Medium-sized business complain that they are forced to pay the same levies as the larger firms without seeing any commensurate benefits[44].

48% of the respondents answered that they did not know if these organisations were representative of their interests or had had no experience with them on which to base a judgement or were simply indifferent. This lack of interest seems to reflect the perception that the associations are primarily instruments of collective bargaining, rather than active in promoting the interests of the smaller enterprise in particular (ie in addressing pressing sectoral or regional problems).

10.5% of the respondents felt that these organisations did represent their interests adequately, as a source of marketing information and reasonably priced training courses. One

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[44] A typical response of the owner of small business: "They just take your money and offer you nothing ... We pay subs to them but I can't see what they do ... I pay training levies - Never did anyone train some of my guys ..." (personal interview with Tania Ajam, 12 July 1994)

respondent gave a very qualified yes, pointing that there was not enough participation from the part of manufacturers themselves.

Respondents were also asked if they had received any form of assistance from any small business institution. All those enterprises situated in the Blackheath Hive (30% of the sample) obviously had some sort of contact with the SBDC (which provided access to premises, loans and machinery). In addition to those firms in the Hive, 10% of the total sample had received some form of assistance from the SBDC in the past. None of the rest of the sample reported having received any such assistance.

FUTURE PROSPECTS

Finally, respondents were asked what they considered to be opportunities and threats/problems for their firm and/or the furniture industry in the Western Cape.

50% of manufacturers in the sample cited the Reconstruction and Development Program (RDP) with its emphasis on increased housing and employment creation as a possible source of increased future domestic demand and 5% the allied possibility of increased government contracts to small businesses. 15% of the firms surveyed were keen to increase their export share and so become less dependent on the South African market. When prompted about the imminent decrease in tariffs in order to be GATT consistent, 15% of the sample felt this to be an opportunity since it would bring down the price of imported timbers. 15% of the sample of mainly small firms intended to diversify their product ranges in the future.

The threats can be broadly separated into those affecting micro-enterprises and those affecting the small, medium and large firms. 62% of all the microenterprises (8) in the sample experienced problems with the high prices of inputs or the fact that they could not obtain credit from suppliers. 50% of the microenterprises were experiencing a lack of demand for their product. Of the 7 small firms, 42% reported late

payments or defaults by their debtors as a problem. Interest payments were also seen as a source of risk and uncertainty for small firms.

Only 25% of the sample felt that lowering of tariffs would impact on their own market significantly. The rest felt mainly that it would not affect built-in furniture, or that the respondent firm was located in a high value added niche relatively well insulated from any potential onslaught.

The most widely perceived threat/problem is seen to arise from labour related issues. 30% of the sample, mainly small firm see the trade unions as a threat. 25% of the respondents had concerns about future worker productivity and work ethics. 10 of the firms felt that skills shortages could very well happen in the future. And finally, 60% of all sampled manufacturers quoted the current wage structure in the furniture industry as a current and future problem (describe in chapter 4).

The above survey results seem to indicate that different sets of constraints operate on microenterprises and small, medium and large firms. Clearly, no single policy prescription will be able to address all segments of the industry simultaneously. This suggests that policy should not only be sectorally specific but make due allowance for the size of firms.

CONCLUSIONS

The details described in the previous chapter paint a picture of the three different localities. The Blackheath Hive, in a sense an "artificial" agglomeration with a critical mass of sectorally concentrated microenterprises[45] shows signs of incipient economies of agglomeration and a denser web of transactional relationships between those firms located in the hive. Yet this small firm "cluster" can hardly be termed locally embedded, in the sense that there is a distinct overlap in the productive and social lives of the community, or socially cohesive institutions to underpin economic decentralisation. The Lansdowne area does exhibit slightly more local embeddedness, but while external economies are present, economies of agglomeration are almost completely absent. Much the same can be said for the Epping location.

If the principle aim of this survey were to establish whether the the small firm variant of flexible specialisation exists or merely to gauge the deviation of actual conditions from the ideal type, then this conclusion would contain nothing except affirmation of an a priori conviction that FS does *not* exist, and that virtually all the features of the ideal typical model are absent from the three locations under scrutiny.

However, the central thrust of this paper has been to gain some understanding of the nature of the *process* of the firms' interaction with their suppliers, customers and with other firms within a particular institutional and locational context. The FS methodology was used as a systematic approach to investigating these processes, since (as has been discussed previously) it focusses on several important elements that had been somewhat neglected before (eg linkages, inter-firm cooperation and competition etc).

Examining these processes, a number of critical issues have surfaced, which should be addressed by the industry at a

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[45] At the time this survey was conducted, there were 20 firms in the woodworking or furniture making in the Blackheath Hive

sectoral level. Because this study aims at identifying the furniture manufacturers' perceptions of the problems/opportunities confronting them, it may not capture all the underlying causes of these problems. Ideally this analysis, should be supplemented by studies of both the suppliers and the furniture retail sector to get a more balanced view of the dynamics within the industry as a whole, and possible even related industries as well (eg woodworking tools etc). However, the areas identified for policy consideration include:

1] THE INSTITUTIONAL ENVIRONMENT

Of the furniture manufacturing firms interviewed, 60% perceived the rigidity of wage structures to be a problem. While particularly the small businesses perceived the *level* of wages to be a problem (i.e big employers and the unions negotiated terms which were not affordable to the struggling, recession-hit smaller firms), it is the *rigid structure* of wages that is likely to have a negative impact on the industry. As discussed in greater detail in chapter 3, the minimum wages set down in the Industrial Council (IC) agreement are linked to the performance of a particular phase of production within a designated trade (upholstery, woodcarving etc). So the IC agreement would state that employees engaged in boring holes should earn at least R262,90 a week, that an employee engaged in applying wax should earn at least R242,00, that an employee engaged in sewing mattress handles to borders should earn R256,30 etc. Smaller enterprises often, through on-the job instruction, teach an employee competence in a single phase, but then are obliged to pay (multi-phase) artisan rates. On the other hand, the union argues that "if you do the work, you must be paid the IC rate (and not less)" (Dumpies,1994).

One effect of this type of wage structure is that it provides a *disincentive* for the acquisition of further training and hence the multi-skilling so beloved of the

proponents of the FS paradigm. This would prove to be in the interest of neither the manufacturers nor the employees in the long run.

By allowing microenterprises exemption from paying, for instance, training levies, this would most likely result in microenterprises being even more remote from training institutions at a stage in their development when they most need this sort of input. Eventually, once the firm starts growing and the threshold is reached, the firm would have to contend with making the various contributions it is legally obliged to, all in one go.

One suggestion for dealing problems like these, has been the suggestion that a system of collective bargaining needs to be developed which is appropriate to the small business sector:

> Within the Industrial council context, it could give rise to *sectoral agreements* applicable exclusively to small businesses as defined in the course of collective bargaining) in each industry, that would make fewer demands on employers and contain fewer benefits for workers than the agreements applicable to the remainder of those industries.
>
> (Du Toit, 1993)

However, this presupposes some sort of representative industrial association which could represent the interests of smaller firms as well as a high degree of trade union representation in small firms (like in Denmark and the Third Italy). Both of these are largely absent from the three locations investigated in this study.

Whether options like these are at all feasible should be the topic of debate among participants in the industry. There is already a growing awareness that these vital labour-related issues cannot be ignored.

2] SMALL BUSINESS INSTITUTIONS

Most of the microenterprises and small businesses in the sample did not have any problems accessing credit - in fact a large proportion preferred not to use overdraft facilities etc. Their main problem is seen as the terms on which they purchase inputs from suppliers.

This suggests that in order to assist the potentially more dynamic firms, provision of "real services" such as marketing, design, technological upgrading and training should be offered *on a sector specific basis*[46]. For example the Department of Wood and Furniture of the Danish Institute of Technology carries out applied research in the properties of wood, processes relating to wood, computer aided design etc. They have also developed advisory programmes to assist in transferring this technology to SMEs in an economic manner. The programmes cover quality development, productivity development and networking. 85% of the firms which use these programs have less than 50 employees (Danish Institute of Technology, 1993).

This has also implications for counties donating funds towards SME support in South Africa - gaining access to this type of expertise and the opportunity to use "real service centres" like these as models, could be as important, if not more so, than monetary assistance alone.

For example, the results of this survey showed that even microenterprises and small businesses were spontaneously engaging in exports to Namibia and other neighbouring states. The provision of marketing intelligence (which is virtually costless on the margin when distributed on a large scale) could overcome information asymmetry and encourage exports. Once again this information would have to be sector specific.

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[46] The White Paper on a national strategy for the promotion of small business (DTI,1995) does envisage a nationwide network of local service centres to perform such functions.

3] INDUSTRY ASSOCIATIONS

Existing associations within the furniture industry generally have a negative image in the industry as being mainly instruments of collective bargaining. The furniture industry will be undergoing quite a few challenges in the near future eg the lowering of tariffs and the possibility of an influx of cheap imported furniture, to name but one. These changes will most likely affect the majority of participants in the industry. Without some form of *effective* and credible industrial associations, it will be extremely difficult to formulate a strategic vision for the furniture industry. Industry associations cannot be responsive to the needs of the manufacturers (eg training, marketing and technology) unless business people (from all segments of the industry) actively participate in shaping the policy of these institutions. On the other hand, unless businesspeople can actually see real benefits emanating from links with such associations, it is unlikely they will join them. Compelling membership by law is unlikely to engender the type of collective action seen in Italy and Denmark.

Joffe et al (1993) have mentioned the possibility of public funds to strengthen employer associations and facilitate technological upgrading. Unfortunately those small enterprises in the middle and higher value added segments which are most likely to benefit from this type of intervention (vis-a-vis survivalist enterprises) may not be considered worthy of public assistance, and even if they were, they would have to compete with other socially imperative claims on the fiscus. For the foreseeable future, these types of initiatives will probably have to be funded by sources internal to the industry.

3] TECHNOLOGY, TRAINING AND BUSINESS SKILLS

This study has indicated that small and microenterprises are extremely risk averse in relation to experimenting with new technology and inputs, and a case can be made for holding local trade-shows and exhibitions to allow these entrepreneurs

to see what benefits can be derived from these innovation. The results of the survey indicate that in a relatively high proportion of the total sample (25%), the business administration side of the operating the enterprise was in actual fact being managed by the owner's wife. Often it was the wife who was computer literate and had the business skills to complement her artisan husband's production competency. This suggests that business skills transfer programs should be aimed not only at those who own the enterprises, but also those who actually perform these functions within the business.

While more small business support is currently being channeled into starting up micro-enterprises, it has become clear from the study that more established small businesses of around 6 to 8 years old and employing between 10 and 50 employees also need marketing, training and technological support. On the other hand, most consulting firms do not cater for the smaller firms, and even if they did, the cost would probably be prohibitive for smaller firms. One option could be the introduction of "network brokers", or part-time consultants who could be assisting several small firms in a "cluster" at the same time. If small-scale manufacturing is to be seen as a viable source of sustainable employment in the Western Cape, this segment cannot be ignored, even if their owners come from groups that are regarded as privileged or not sufficiently disadvantaged to merit public assistance.

At present none of the technikons or universities in the Western Cape offer full courses in furniture design. This is partly due to a lack of demand from the furniture manufacturing industry which is a follower rather than a leader in design. Any attempt to increase export market share would necessitate building local design capacity. In this area, industry associations could play a vital role at regional level in making local educational institutions sensitive to the needs of the industry.

4] SUBCONTRACTING INITIATIVES

The results of the survey indicates that the major reason for subcontracting out is because the subcontractor could perform a complementary phase in the production process or produce a product which could complement the subcontracting party's product range. In addition the single most important factor inhibiting increased subcontracting are the costs associated with monitoring quality and delivery standards.

Taken together, they suggest that once again information dissemination is critical - especially about the specialities of smaller firms within the production process, possibly in some sort of sectorally and regionally specific database. But information alone is unlikely to make much impact. Those dynamic small firms which are well linked to their suppliers and customers etc, have spent years in cultivating a reputation for reliability and quality. There is likely to be no quick-fix in this regard, but in the long term, the only way subcontracting which is beneficial to both contractual parties can emerge, is by addressing the underlying issues of quality and reliability, which of course comes back to training.

Another important issue is that uncertainty about the extent to which the Industrial Council agreement permits subcontracting. The Industrial Council restricts outwork and piecework, but at present the status of subcontracting is not so clear, especially to smaller firms. There needs to be clarity in terms of definitions, since these concepts do overlap considerably.

5] INDUSTRIAL HIVES

The FS paradigm suggests that geographic and sectoral concentration can result in economies of agglomeration and hence collective efficiency. The SBDC Blackheath industrial hive seems to have reached a critical mass of sectorally and geographically small furniture producers, and some form of economies of agglomeration does seem to be emerging. But this was not really planned to be this way. An interesting experiment would be to deliberately plan a single sector hive.

Only relatively dynamic firms would be allowed access, and market rates would be charged to eliminate adverse selection. The real advantage for these firms would be access to highly specialised "real producer services" eg design and prototyping services, sector specific marketing intelligence on local and foreign furniture trends, joint marketing etc. This is particularly feasible since many respondents claim that location is not really the most decisive factor anyway, and some firms in the sample intended to move. If this is so, relocation would not present a major problem.

The above are only a few of the challenges that are likely to face the furniture industry in the future. It is by no means exhaustive. Benton (1992:83) maintains that the use of the industrial districts/FS concept is best used as a tool for investigating similar processes of industrial change rather than a model to be slavishly replicated:

> The first approach leads logically to a more complex understanding of policy intervention. Rather than developing a list of policy prescriptions to promote flexible specialisation and the consolidation of industrial districts, we can serve policy-makers best by identifying the political processes that guide industrial restructuring and by helping them in the intensive fieldwork needed to evaluate the likely effects of particular measures on specific patterns representing those processes. This approach may not prove satisfying to many technocrats because it implies a need to engage in dialogue and joint planning with industry participants rather than merely dictating policy changes, but it is the only strategy worth pursuing.

If sectoral case studies like these can help advance these objectives by assisting policy-makers and industry participants, rather than being merely academic exercises, the time and effort spent on them and the methodology used is vindicated, to some extent.

APPENDIX 1: EXTERNAL AND INTERNAL ECONOMIES

Internal economies are cost-reducing relationships within a plant or firm, whereas external economies concern cost-reducing relationships which extend beyond the boundaries of plant or firm. Both internal and external economies may be further subdivided into economies of scale and scope. Economies of scale generally arise from technological and organisational indivisibilities, and are engendered by increases in the level of economic activity. Scope effects, on the other hand, derive from the "positive and negative transactional relations that are established between different units of productive activity" (Scott, 1988: 19) and are engendered by the number of different activities undertaken.

THE GENESIS OF INTERNAL AND EXTERNAL ECONOMIES

	SCALE	SCOPE
INTERNAL	Level of output in firm or establishment	Variety of different tasks performed in firm or establishment
EXTERNAL	Number of producers in complex or agglomeration	Variety of producers in complex or agglomeration

Source: Scott & Storper, 1992: 7

Traditionally, economic theory has concentrated on internal economies of scale (where unit costs fall as output increases inside the plant or firm) and internal economies of scope (achieved by firms large enough to engage efficiently in multi-product production and associated large scale purchasing, distribution, and advertising.

The FS literature places great emphasis on external economies of scale which arise from inter-firm specialisation and the growth of output of a series of allied firms eg where specialist suppliers experience economies of scale not realisable within the principle firm itself. External economies of scope may also be associated with complementarities in production. Storper (1991) cites an example where increased demand for detergents make the use of

automated packaging machines economically viable and thus reduce the production costs not only of the detergents, but of the machines as well. The fall in the cost of machines may render their use in the making of cornflakes and cocoa, etc profitable.

Changes in technology or in market conditions may cause the dissipation of internal economies of scale, giving rise to *horizontal integration* in which producers of any one type become smaller and more numerous, tending to increase external economies of scale. Internal economies of scope may also decay resulting in *vertical disintegration* (the fragmentation of the production chain, from the transformation of raw inputs to the final output, into a number of distinct processes each performed by a separate production unit) or *social (inter-firm) division of labour*.

Under which conditions would internal economies of scope be negligible or negative (i.e. diseconomies of scope), which would therefore be conducive to vertical disintegration ? Storper (1991: 12) lists a few:

1] It may be technologically possible to disaggregate different labour processes in production out into specialised units of production, if they cannot be synthesized or integrated into unified machine systems

2] If markets are fluctuating or unforeseeable, large firms may subcontract certain activities to avoid the transmission of variability or uncertainty through the vertical structure of the firm. Under conditions of market volatility, vertically disintegrated batch production may be a feasible alternative to centralised vertically integrated production.

3] If producers for final markets need intermediate inputs which can most efficiently be fabricated by firms entirely dedicated to these inputs because of their firm-specific know-how

4] If these inputs can be made in factories whose minimal optimal scales of production can only be attained if their production is marketed to a variety of downstream firms, vertical disintegration will lower costs

5] Large firms with internal labour markets or unionised labour may also put out certain phases in the production process to minimise the labour costs of low-skilled workers.

APPENDIX 2: SAMPLE OF QUESTIONNAIRE

QUESTIONNAIRE

FURNITURE INDUSTRY

Respondent's name: _____
Position within the firm: _____

THE ENTERPRISE

Name of enterprise: _____
Form of ownership: _____
Major product line/s: _____
_____
Monthly volume of production: _____
Location of enterprise: _____
Why was this location chosen? _____
_____
How many other enterprises in the furniture sector are also in this geographic vicinity? _____
How old is the enterprise? _____
How did the enterprise operate at start-up and what major changes in operation and organisation have taken place since its inception ?

_____
_____
_____
_____
_____
_____

How does the enterprise operate now ? _____
_____
_____
_____
_____
_____
_____
_____
_____
_____
How is it organised now? _____
_____
_____
_____
_____
_____

How is the business management side of the enterprise handled (eg accounting, billing customers etc)

What is the cashflow situation of the firm at present? Do you think that it could be improved by management techniques like budgeting etc?

Are work premises adequate? _____

Monthly Turnover (In Thousands of rands)
Below 20 000 20 - 35 000 36 - 50 000 51 - 65 000
66 - 75 000 75 - 90 000 90 - 100 000 100 - 300 000
301 - 500 000
If above R 500 000, please specify _____

THE MARKET

Which market segments does the enterprise target (eg low/middle/high income markets for final consumers)? _____

What does the entrepreneur perceive as her/his critical success factors on which competition is based eg (price,quality, after-sales service etc)?

What role do personal/business networks play in the marketing process (eg in attracting customers)? What other forms of marketing does the firm engage in?

Is production order-driven or are products manufactured in advance and then marketed? _____

Does product differentiation exist? _____

How do you price your product? _____

How do you deliver your product? _____

THE TECHNOLOGY

What type of inputs does the firm use? _____

To what extent do personal and business network facilitate access to inputs (supplier relations)? _____

What types of tools and equipment are in use? Are these mechanised? Can the same set of tools have general purpose applications?

How freely available is access to electricity, telephones, fax, transport and other facilities? _____

What design capabilities (if any) does the firm have at its disposal, or is the product range centred on imitation and traditional designs?

How have tools and other forms of technology changed since the firm started?

Has the entrepreneur been at all able to invest in new machinery/ skills upgrades or other forms of investment in technology within the last 12 months?_____

Does the firm use personal computers for accounting, wordprocessing etc? What types of office equipment are used?

THE ENTREPRENEUR

Highest std of schooling reached (std 5 or below, std 6 - 8, std 9-10, diplomas or other qualifications? _____
What is the background of the entrepreneur, any formal qualifications in the furniture trade?

Why did the entrepreneur go into business (eg retrenchment, family business etc)? _____

How high are entry costs? _____

How were these setup costs initially financed (eg bank credit, family support etc)?

What is the current monthly income of the entrepreneur?

Would the entrepreneur accept wage employment if the wage offer was equivalent to his/her current income from the business?

What are prospects for succession?

What is the social group of the entrepreneur?

Existence of social sanction and other forms of exit costs?

Age of the entrepreneur:
20 or below 21 - 25 years 26 - 30 years 31 - 35 years
36 - 40 years 41 - 45 years 45 -55 years above 55 years

LINKAGES

What linkages does the small enterprise have with other enterprises eg technical, maintenance, distribution etc? Does inter-firm cooperation (eg in the form of borrowing tools or recommending customers to a fellow entrepreneur who specialises in a form of furniture) take place?

If there are several firms in the same location, do informal restrictions on competition exist eg informal price floors?

Does the firm subcontract for any other firm (eg retailers)? Why/Why not?

Does the firm subcontract any of its own production?

Why/Why not?

Is the highly concentrated network of retailers (with their high degree of backward integration and inhouse sourcing) perceived by entrepreneurs to be a major obstacle?

How does the firm obtain inputs - how are supplier relations with regard to terms, credit etc?

Is the firm affiliated to any industry associations (eg Cape Furniture Association)?

Does the entrepreneur feel that existing associations adequately promote the interests of small and medium-sized firms?

What linkages does the firm have to small business and other industrial institutions eg SBDC and IDC, or local government?

Does the firm have any access at all to bank credit facilities? How does this impact on the running of the business?

If direct credit is not available, what strategies do entrepreneurs adopt to try to overcome this (eg by using prospective customers' deposits to obtain raw materials or cross subsidising projects)?

How do these strategies impact on quality and delivery times as well as inventory?

THE EMPLOYEES

How many employees are there? _____
What is the skill distribution of these employees?
Are skills broad-based?

_____
_____

Does each worker specialise in a specific task or does job rotation take place? _____
How are workers employed and which areas do they come from?

_____
_____

What usable skills do workers start with? is the firm forced to take on a training role? If so, is it on-the-job, courses, etc?

_____
_____
_____

What type of wages accrue to skilled and semi-skilled labour? Other benefits? _____
_____

Does the firm follow any health and safety procedures? If so, please describe.

_____
_____
_____

OTHER PROBLEMS (eg threat from imports etc), OTHER OPPORTUNITIES (eg EXPORT) and FUTURE PROSPECTS.

_____
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