Changing Practices in the UK Apparel Supply Chain:

Results of an Industry Survey

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Because of the changes that are occurring in the way that apparel is marketed to the consumer, there are new pressures on retailers to find alternatives to their traditional strategy of cutting cost by finding the lowest cost suppliers. As retailers become more concerned with the unpredictability of consumer demand and the inventory consequences of offering more styles, they are placing new demands on their domestic supply chain for faster replenishment of stocks and for providing additional services to retailers. This report examines how the strategies adopted by retailers is affecting clothing manufacturers and contractors in the UK. It explores the extent to which innovative practices have infiltrated the apparel supply chain through a survey of a sample of UK manufacturing companies.

Survey Methodology

The following analysis of changes in the apparel supply chain is based upon a survey of a sample of 50 clothing manufacturers, located primarily in the Midlands. The companies surveyed were selected to cover a wide range of products and vary in size, market orientation and location. As far as possible the sample is representative of the UK production base, although larger companies have been over represented to ensure that practices of those firms that account for the greatest share of production and employment are reflected in the data.

This survey was conducted during 1995 through face-to-face interviews. Retrospective data was compiled at the business unit level for the years 1990 and 1994, utilizing a survey framework developed by the Harvard Center for Textiles and Apparel Research. Face to face interviewing techniques have enabled the researchers to discuss corporate issues and strategy with senior company representatives and to collect qualitative information that is used to supplement the survey findings. (The companies that have participated in the research are listed in the Appendix to this report.)
Shorter interviews were conducted with a sample of 5 manufacturing agents and 12 of their subcontractors in the small scale production sector located in East London. In addition, qualitative interviews with 9 textile manufacturers and finishing companies, selected because of their innovative response to changing demands within the supply chain. Complementary data has been extracted from a variety of sources including conference and workshop presentations made by retail and manufacturing companies, journal articles and the trade press and meetings with industry representatives.

**The Integrated Supply Chain**

Parts of the supply chain in the UK have traditionally been integrated through either partnerships with retailers or through formal vertical integration. Leading textile manufacturers, such as Coates-Viyella and Courtaulds once owned their own clothing manufacturing plants, but such vertical integration has largely been abandoned. More successful and enduring have been partnerships formed between retailers and their major domestic suppliers. The longest standing and most developed examples are those formed by Marks and Spencer. The M&S partnerships extend to textile, as well as clothing, suppliers and deeply permeate the business practices of these suppliers.

Lean retailing has increased the frequency with which replenishment is occurring (see Table 1). **Lynn: Add table on replenishment frequency.** The movement towards faster replenishment of stocks is leading to a variety of innovations in these retailer-supplier partnerships. However, there is a sense among suppliers that much of the development of closer relations is one-sided in that it largely benefits the retailer. Examples include insufficient allowances for the added costs of services provided and the scaling back on purchasing commitments in the middle of the season.

**The Changing Character of Partnerships**

Despite the rising emphasis on retail-supplier partnerships, the frequency with which such arrangements are adopted remains uncertain. Our survey shows that the majority of suppliers (58%) had no partnerships in 1994, while about 7% had partnerships with 3 or more retailers (Table 2). The majority of those suppliers that have retail partners are partnered with only one customer, and that customer is often Marks and Spencer. Retailers initiate the majority of partnerships, but those manufacturers with
multiple partnerships are more likely to have initiated subsequent partnership agreements. While more supply partnerships are being formed, many of the largest retailers are deliberately reducing the number of key suppliers with whom they deal, as witnessed by the recent decision by Marks and Spencer to drop several of its established suppliers.  

What is clear, however, is that the character of these partnerships is changing as new priorities are replacing traditional purchasing contracts with more sophisticated supply chain relationships involving two way communications and long-term commitments to buy and supply. The survey shows an increase in information sharing from less than 10% in 1990 to over 35% in 1994 and very substantial gains in cooperation through automatic replenishment and improved product delivery arrangements (see Table 3). Joint product development is less of a priority, as is supplier responsibility for product quality, although both have grown over time.

There is, however, a general perception among clothing manufacturers that the price increases retailers are willing to pay for the additional services provided are inadequate and that the increasing use of penalties for failure to deliver on time or to meet quality standards are further squeezing margins. The only offset to these costs are the increased economic security offered by partnerships.

**Provision of value-adding services**

The level of services that retailers are requiring of suppliers has increased dramatically (see Table 4). The clearest illustration is the transfer up the supply chain of services that retailers used to provide in order to save time and cost at the point of sale.

Manufacturers must now present goods floor-ready, bar-coded and priced. Delivery of floor ready goods averaged 37% of shipped value in 1995, up by over one-third since 1991. This reduces the lead time from the delivery of goods to their placement on the shop floor; an advantage which more than counter-balances the additional costs of

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1 BBC On-line Network, 22nd October 1999.
transporting goods hanging rather than packed flat. Product specific bar-coding has increased from 13% to 52% of average company volume and a further 38% of goods are labeled with the manufacturer’s price or product instructions. On average, one quarter of goods (compared to 15% in 1991) are delivered to individual retail outlets. Collectively, these practices enable the retailer to save time and space on the warehousing and pre-retailing of goods.

A number of companies interviewed questioned the advantages to them of providing value-adding services. They report that the costs of these services are shifted from retailers to suppliers and adequate allowance for these costs being included in the price per unit. They complain that these services are not provided by foreign manufacturers and that the new specialist processing companies that are emerging to perform such services are adequately paid by either the retailer or the importer.

These data, however, understate the diffusion of value-adding services because such services are adopted primarily by higher volume manufacturers that are suppliers to the major chain stores. The last column of Table 4 reports the total volume of sales in our sample the was covered by different value-adding services. For example, almost three-quarters of total production was bar-coded at the SKU level in 1995 and almost half was shipped floor ready.

IT Capacity

IT capacity is also becoming a key capability for in the retailer-supplier relationship. EDI is a key feature of lean retailing in the United States, but this has been less the case in the UK. Only 12% of the firms in our sample are engaged in EDI. However, these are again the largest suppliers so that the volume of output covered by EDI is more than double the average utilization rate (Table 4).

The use of EDI and related information technologies is growing rapidly in areas such electronic point of sales data (EPOS), computerized production planning systems, and the exchange of product specifications. Survey data suggest that the greatest increase in IT is in internet communication. Since EDI was adopted relatively late in the UK, and restricted to the suppliers of a few innovative retailers, the internet has become the communication network of choice within clothing supply chains. EDI exchange is used mostly for ordering and invoicing purposes, rather than for the exchange of sales and
planning data, but some retailers are predicting that Internet or EDI capacity will become a minimum supplier selection requirement within the next two years. To accomplish this goal, however, anecdotal evidence suggests that retailers as well as suppliers will have to significantly invest in new systems for this to become reality.

Our interviews show that generic style information at product level is more likely to be exchanged than specifics. The most common types of information to be shared are general sales trends and demand forecasts. Production plans and supplier purchases are also used by more than one third of those surveyed who claimed to regularly share data. More detailed information, at SKU level, is not regularly shared (figure 5.4). This finding suggests that systems and information are not utilised to their full capacity within the apparel supply chain.

IT developments are also gradually supporting greater integration between textile and clothing manufacturers and retailers. Developments in CAD technology facilitate quicker product development and later confirmation of specifications, while computerised knitting and dyeing and finishing provide greater flexibility for quick response production and for changes in style. In addition, “CAD/CAM and EDI have emerged as pre-requisites of carrying out business off-shore” and those firms that have invested significantly in overseas sourcing or manufacture have installed the most sophisticated communications technologies.

V.2. Product development, lead times, and Management Practices

Production Lead times

The survey evidence of product development and lead times reveals a complex picture from which it is difficult to generalize. For example, lead times can vary enormously. The shortest standard lead time, from concept to delivery of the first goods, is 8 weeks and the longest is 44 weeks. However, for specific quick response orders lead times can be reduced to just one week.

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2 Drapers Record
However, some clear patterns do emerge. In general it is evident that lead times are shortest for small firms, and longest for those firms offering non-seasonal basic goods, such as formal wear and jeans. The critical variables that distinguish those companies practising quick response or demonstrating short standard lead times from long lead times include:

- the time taken in the development of product, which can extend to several months, but which is almost eliminated in quick response;
- the length of time taken between presenting samples and awaiting ordering decisions from customers;
- the duration of the manufacturing process;
- the length of time between when products are manufactured and when they are despatched, which varies from a single delivery upon completion of a manufacturing run to several replenishment shipments that are “called off” by retailers at various times during several concurrent months of manufacturing.

It is clear from the variations in performance that many of these variables are beyond the control of the individual firm. For example, the longest lead times are attributable to those companies selling branded goods, which are subject to twice yearly exhibitions and forward order for stock by retailers. Those firms with the shortest lead times are often vertically integrated and can quickly make decisions about stock requirements, choice of style and quantity.

Also notable among those firms offering quick response is the shortening of product development time and reduced delay in awaiting orders. This is usually the case in which retailers specify in advance which styles will require quick response replenishment and where EDI is used to provide information about orders. It is also evident from the critical path scheduling process outlined by companies that the development process for quick response items is done concurrently with the sourcing of fabrics, and that the making of samples and promoting goods to potential customers is done sooner in the sourcing process than for standard products. In addition some companies clearly manufacture quick response items from fabrics or yarns held in stock, eliminating the need for sourcing and awaiting delivery of materials. Table 5.4 shows the variations in standard and quick response lead times.
Product proliferation, Range complexity Product Complexity

UK apparel companies, in general, report an increase in the numbers of products and styles product proliferation between 1991 and 1995, not unlike that experienced in the United (see table 5.5). Not only has the total number of products offered increased, but there is also an increase in both the number of new products added to the range and the number of products dropped. Overall, the fluidity within the product range is growing. Most of the increase in product proliferation has occurred during the latter part of the survey period, reversing a trend towards decreasing the number of styles offered by manufacturers through 1991 (Table 5.5).

Product development is a major investment of both time and resources for UK manufacturers. As product proliferation has increased, manufacturers have seen an increase in the number of sample iterations expected, and a decline in sample adoption rates. In addition, while retail buying decisions are confirmed closer to the selling season to maximize flexibility, samples are still demanded of manufacturers months in advance. For manufacturers, increased product proliferation can result in fragmented production.

Some apparel companies have begun to recognize the proliferation of styles to be a problem. Order sizes are widely recognized to be falling. While some companies have adopted innovative methods of production to turn the situation to their advantage, many continue to see the demise of continuous bulk production as a threat. They are deliberately adopting strategies to counter this trend by rationalizing their offering of SKUs and eliminating marginal lines. In addition, some firms, with the endorsement of their major retail customers, have concentrated production on basic styles that can be differentiated by frequent changes of color and minor style adaptations that can be made at later stages in downstream processing, such as garment dyeing and finishing.

Offsetting some of these problems is a trend towards simpler clothing designs. Product complexity varies according to fashion trends, but a general perception evident from the survey is that the complexity of product manufactured in the UK has decreased as far as sewing/knitting processes are concerned. At the same time, complexity has increased in the content of speciality fabrics or finishes and in the finishing process itself.

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where much product differentiation occurs. The consequences of this trend towards simplification, however, are difficult to determine. It is the general perception of manufacturers that complex goods with a high labour cost are more likely to be manufactured off-shore, while goods with high value of material are more viable for domestic manufacture.

**Resupply Pressures**

In order to satisfy consumer demand, while reducing the costs and risks of retail stock holding and warehousing, some retailers have adopted strategies of demanding small initial orders supported by frequent and rapid replenishment of goods that sell well. This in turn creates new supply pressures on manufacturers who sell directly to retailers, especially to the major chain stores. Our survey reveals increased pressure to fulfil orders on a daily basis. For example, a staggering 87% of sales to variety chains are replenished on a daily or weekly basis, often 7 days per week and over half of goods delivered to specialty chains are replenished on a weekly basis (table 5.1). At the other extreme, only 4% of goods supplied to independent retail outlets are frequently replenished. This small minority is primarily the activity of small vertically integrated companies selling through their own local outlets.

Specialty chains and department stores represent the intermediate case. Of goods distributed to specialty chains and department stores, almost one third (29% and 33% respectively) are never replenished. This reflects two distinct underlying patterns. One is for goods with high fashion content and brand image. For example, some classic branded lines are still delivered on a two-season per year basis, and replenished from the retailer’s stock holding. The second is for specialty stores targeting young markets that have shorter selling seasons for any given product and are continuously developing new styles within seasons, rather than re-ordering existing lines.

The survey shows that supply chains must deal with at least 8 different types ordering and replenishment strategies by retailers. These include:

- Forward orders with no replenishment
- Forward orders with one replenishment during the season

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5 THE FOOTNOTE SEEMS TO HAVE DISAPPEARED
• Domestic fast track replenishment for imported goods, where local suppliers are used to ensure stock availability of best sellers
• Forward orders with regular replenishment scheduled, used mainly for basic items with a long product lifecycle.
• Forward orders with a type of replenishment often referred to as “call-off”. Call off is a system that enables the retailer to place an order for the anticipated seasonal requirement of an item, but to take delivery of only a small initial quantity and to draw as needed from the total order as goods are sold. Call off goods are often replenished from inventories of finished goods held by the supplier.
• Forward order with phased delivery. Goods are ordered in advance and a delivery schedule agreed for the forthcoming season that enables manufacturers to pre-plan production schedules and both manufacturer and retailer to avoid inventory costs.
• Forward orders with fast track repeats where replenishment stock is not arranged in advance, but in response to sales performance.
• Fast track orders for fashion forward products launched throughout the season. This system depends on rapid manufacture as well as delivery.

Changes in Work Practices

These different ordering strategies affect the way that production and work are organized. The progressive bundle system using highly specialized labor is most efficient for large single season orders and can also be adapted to forward orders with predictable replenishment cycles, although additional inventories of finished goods may be required. The smaller the order and the more frequent and unpredictable the call off or replenishment order, the more likely it is that the progressive bundle system will be replaced by modular production, teamworking or unit assembly systems.

Nine firms in our sample practice modular production to some extent. The average among these firms is 30% of volume, but usage varies from 5% to 75%, depending on the nature of the company’s product range and the size of its customer
base. For the entire sample, team based production accounts for approximately 15% of total output. The companies using teamworking most often produced large runs of goods for M&S under “call-off” systems. The companies where teams are used less often, use teamworking only on small production runs for niche markets, trials, or rapid replenishment. Two small companies producing short runs of specialized products utilize a Unit Production System, but this is insignificant in terms of total volume.

Modular production and teamworking are widely recognized to decrease the amount of work-in-progress and minimize lead times during manufacture, particularly in firms where style changes are frequent. IN THE U.S. WE DISTINGUISH BETWEEN MODULAR AND TEAM PRODUCTION. HAVE I CORRECTLY APPLIED THIS DISTINCTION TO THE UK? Evidence suggests that the motivation for implementing teamworking is mainly to reduce work-in-progress, as the majority of firms that have taken this action supply basic or fashion basic products. Throughput times for team based assembly are also consistently lower than for other methods of production (see table 5.6), although non-sewing processes, such as marker making and cutting, in team based systems are longer, perhaps as a direct result of the fragmented production runs that teamworking is designed to address.

Changes in Production, Inventory, and Logistics Management

The use of teamworking and modular production is associated with other improvements in supply practices. For example, those firms that have been innovative in implementing teamworking are more likely to be involved in partnerships with retailers that where there is information sharing and the use of automatic replenishment practices. They are also likely to be engaged in replenishment production and to provide speedy supply arrangements and delivery related services to retailers. Similarly, manufacturers who operate under flexible replenishment practices are more likely to engage in pre-booking production with subcontractors and suppliers in preparation for true quick response. The full efficiencies of these practices can only be realized if all aspects of the supply chain work in partnership.

Supply chain partnerships are also developing the accreditation standards for production practices and working conditions for clothing manufacturerers. Some
Retailers, led by Arcadia, are seeking to ensure that even subcontracting factories are transparently accredited within the system, and that those that fail are no longer used by first-tier suppliers. Accreditation is seen by subcontractors as one of the few ways to secure business in the future. The relatively large proportion of factories that fail under rigorous examination does carry the promise of more work and extra security for those that pass. However, the cost of meeting the required standards and achieving accreditation is, for some subcontractors, disproportionate to the benefits of gaining a small amount of additional business at minimal profit margins.

Alongside changes in partnerships and new forms of work organization, however, we also observe changes in manufacturers’ inventory holding practices (Table 5.2). The survey data show that one of the results of the trend towards holding fewer inventories at retail stores and warehouses has been to shift of inventory holding and its associated risks and costs to manufacturers. Between 1991 and 1995 manufacturers’ finished stock holding increased by as much as 40%.

The increase in inventory level has two major causes. On one hand, suppliers are holding stock ready for “call-off” in response to sales by retailers, particularly for supplies to variety chains where almost 90% of goods are replenished on a daily or weekly basis in response to sales data. At the same time, increased import activity by suppliers has necessitated the holding of stock that has been transported in bulk, but which may be distributed in store-ready batches.

In reality, many manufacturers respond to electronic orders by delivering goods held in stock. Where goods are delivered on such a “call off” system, receipt of sales information enables manufacturers to balance the volume of finished goods held in stock against the economies of achieving bulk production of forward ordered lines. In the case of goods being manufactured at off shore plants, the long lead time for delivery to a UK warehouse eliminates some of the advantages of fast ordering systems. Suppliers are now carrying the risk that retailers used to bear of holding stocks of goods that are not selling as well as expected.

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6 Centre for Work and Technology, Supply Chain Survey, 1997
At a more detailed level of analysis, however, inventory holding has changed different ways. show that can addition, stocks of trims and components have also escalated. Notable differences include:

- An increase in the level of trim and accessory holding in order to avoid production bottlenecks and late deliveries
- A decrease in fabric or yarn holding PLEASE EXPLAIN WHERE AND HOW FABRIC AND YARN CAN BE OBTAINED ON SHORT NOTICE FOR QUICK SUPPLY AND WHY THIS IS EASIER TO ACCOMPLISH THAN FOR TRIMS AND ACCESSORIES
- A decrease in the number of days of work in process inventories at the stage of goods cut and ready to sew
- A decrease in the amount of work in progress at the assembly stage
- An increase in the finished goods inventory held by manufacturers.

Many manufacturers have also increased the number of suppliers from which they purchase materials and finished goods.

The extent to which such increased inventory levels are sustainable is a subject for debate. Retailers have undergone dramatic reductions in the level of their stock holding over the last few years, but it remains to be seen if inventories can be reduced substantially within the entire supply chain through shorter lead times and faster deliveries of fabric and trim.

While lean retailing pressures have spread through the apparel production chain in recent years, it is not clear that the whole production channel is becoming leaner. Survey data shows that much of the burden of adjustment to volatile and uncertain demand has been shifted from retailers to clothing manufacturers. There are, for example, relatively few manufacturers whose production capacity is being booked in advance. It is more common for orders to be placed later and to be fragmented to accommodate changes in style or color. The reduction of retail stock holding has also forced this burden onto manufacturers, as the information required to phase production is not always forthcoming.

Quick response manufacturing, therefore, appears in many instances to be more akin to a fire fighting reaction to last minute ordering, rather than a result of careful
planning, efficient production management and mutually beneficial supply chain relations. This is particularly the case for small and medium sized companies. Where the management capacity to develop joint partnership objectives and combat adversarial supply relations is still in its infancy. In addition, few accounting systems are fully able to identify the true financial benefits of minimizing mistakes and wastage.

Since supplier inventories, last minute orders, and smaller orders add to already relatively high labor costs, it remains to be seen to what extent rapid response supplies can replace lower cost offshore production. For the time being, however, domestic suppliers are the choice for quick response supplies. The retailers surveyed as part of this study reported that UK suppliers held definite advantages over offshore suppliers in the speed of response, capability to adhere to timely delivery commitments, and the quality of value-added services provided. Some indicated that UK suppliers were most valuable for replenishment and trial orders, and styles where late sourcing decisions were required in order to avoid holding large volumes of high priced goods. UK suppliers were also perceived to offer the most favourable style options for the domestic market.

For the foreseeable future, UK advantages in these markets are safe from foreign competition. For example, one chain store supplier recently commented that the additional surface delivery time from its plant in Sri Lanka is five weeks, and that air freight costs five times as much as sea and land routes, so that going offshore for quick supply is an option reserved for crises situations for the foreseeable future.

Nevertheless, with the exception of specialist chain stores, the trend towards offshore sourcing has increased for retailers during the survey period (Figure 5.5). The clearest indication of this trend is in variety chain stores, which have strengthened their in-house capacity for developing subcontracting relationships overseas at the same time that they have decreased UK sourcing. It comes as no surprise that price or perceived value (in relation to quality within a price range) was a significant reason for outsourcing for 7 out of the 10 retail respondents. However, it is more surprising to find that goods were sometimes sourced overseas because of factors where the UK should have an advantage, such as innovations in fabrics, capacity availability and special skills, technology, design and variety.

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7 Centre for Work and Technology, Retailer Survey, 1998
Textile supplies

Contrary to lean manufacturing principles, many apparel manufacturers have increased the number of piece goods suppliers with whom they deal. In 1991, the average number of suppliers was 8.3 per manufacturer, by 1995 this had increased to 13.1, in spite of the trend downstream in the supply chain to rationalize the number of suppliers (table 5.8). Overall, almost half of the companies surveyed had increased the number of suppliers used, while only 10% had rationalized their supply base. One reason for this is the requirement to obtain greater choice in the range of fabrics and yarns sourced to support the greater diversity of products offered. (For example, an increasing number of manufacturers now source both woven and knitted fabrics or buy yarns to knit themselves and source knitted fabrics to extend their product range). Other reasons include the need to secure greater flexibility and reliability, and the tendency for preferred garment suppliers to cover a greater range of their customer’s product requirements.

Relationships with other upstream suppliers have also been subject to change. The major suppliers of items such as zips (YKK) and threads (Donisthorpe) have been among the first upstream suppliers to adopt innovative supply chain practices. In some cases this has involved reducing their customer base to provide an enhanced service (such as just in time production and customisation) to their most valued (mainly largest) customers. While such developments have enhanced the service available to large garment suppliers, some smaller firms, and those dealing with small volume, flexible production may have found their supply chain extended by the necessity to deal with agents or wholesalers for such items.

In addition, delays in receiving component parts are cited as one of the most common reasons for late delivery and are a direct result of lack of integration upstream within the supply chain. The situation is compounded for subcontractors providing quick response supply, as negotiations for components frequently bypass their involvement so they have little opportunity to liaise direct with suppliers and lack the status to ensure timely delivery.
There is little evidence to suggest that, in general, fabric suppliers have responded as quickly to changes in retail demands for faster delivery and increasing responsiveness to information (table 5.7). Small suppliers in particular lack both influence with major fabric suppliers and the working capital to hold large inventories.

- Lead times for basic and fashion lines are little changed and in some cases have apparently increased.
- Minimum order quantities for fabrics show little change. Fashion fabrics tend to be supplied with longer lead times and larger minimum orders, causing many small companies to compromise styles by relying on stock fabric services. HOW DO YOU RECONCILE THIS FINDING WITH THE CONCLUSION EARLIER THAT FABRIC INVENTORIES ARE DECLINING?
- Many apparel manufacturers cite the availability of materials as a major factor in determining whether good selling lines can be replenished.

Some of the more innovative retailers have overcome these limitations by becoming directly involved in fabric sourcing. For example, fashion chains such as Oasis themselves often purchase fabric in bulk which is stored until required for manufacture. Survey evidence shows that 7 of 14 fashion retailers are involved in fabric purchase, whether sourcing direct, selecting fabrics for their manufacturers to purchase or collaborating in the development process. Of these, 4 retailers envisioned increasing their involvement in fabric sourcing.

While apparel manufacturers have made significant progress in the exchange of information with retailers, evidence suggests that information sharing has not been fully explored as a means of improving relationships with suppliers. Information sharing is utilised mostly for data relating to immediate demand and delivery of fabric orders, and is less important with regard to delivery information and sales of finished goods.

V.3. Special problems of SMEs: the London garment sector

In examining the introduction of the services that support lean retailing and add value within the supply chain, one consideration must be the relative size of the most
innovative companies. These tend to be the major chain store suppliers, often those competing for preferential supplier status. The actual extent of these practices, considered as a proportion of the total volume of goods delivered for sale is, therefore, much higher.

Although quick response and fluctuations in fashion demand are considered to be new and increasingly significant concerns within the apparel sector, pockets of the apparel trades have historically served markets where style changes and rapid response have always been demanded. The London clothing sector traditionally served London based apparel markets, with its major competitive advantage being proximity to the UK’s largest market. The characteristics of the sector facilitate the supply of constantly evolving fashion products, particularly for supply to young fashion chains, where value is added through innovation of style, rather than by the quality of goods. In general, the quality and value of goods associated with London suppliers is relatively low.

Structure of the sector.

In East and North London, apparel employs in excess of 10,000 workers in 980 clothing firms almost exclusively dedicated to women’s wear production. Most firms are very small and only 2% employ 50 or more. Table 5.8 shows the comparative distribution of firm size against the UK sector.

In addition, the use of homeworkers is common, especially among CMT units, where addition of homeworkers and casual employees increases the average workforce from 11 to 19. Unusually within the UK, the East London apparel sector is characterized by a relatively high proportion of male employment\(^8\), a characteristic largely attributable to cultural traditions among the sector’s large number of ethnic minority workers, many of whom are drawn from Muslim communities.

The London clothing sector is characterized by a complex structure of small firms which provide a variety of functions; some very specialized and others more comprehensive. These include:

\(^8\) NOMIS Census of Production, 1993
• Wholesalers which buy ready made goods, locally and from overseas, either to fulfill orders or to hold in stock for speculative buyers. Purchases are made from both manufacturers and CMT units.

• Manufacturers responsible for financing and managing all aspects of garment production for their retail clients. Although some manufacturers do have internal production capacity, in general patterns, fabrics and lay markers are supplied to CMT firms (subcontractors) for assembly. Finished goods are returned to the manufacturer for quality control and dispatch.

• Cut, Make and Trim (CMT) firms responsible for providing the labor and machinery to assemble garments for manufacturers, wholesalers or designers. Raw materials, patterns and marketing are provided by the customer. CMT firms are among the largest in the sector, with an average firm size of 11.8 or 19.6 if homeworkers are included.

• Subcontractors including pleaters, embroiderers and some firms that make linings provide specialist services for pre-assembled or semi-finished goods.

• Suppliers of fabric, leather, trims, buttons, and specialized machinery. The majority of suppliers are distributors for goods made outside London.

• Designers working either independently or freelance for manufacturing companies. Many use local CMT firms to assemble their ranges, again providing fabrics, patterns and lay markers.

Within East and North London, the majority of firms manufacture women’s fashionwear, demonstrating considerable resilience in a highly competitive, relatively low value market, where speed of response is important, rather than quality of goods. A large proportion of goods supplied through the network of manufacturers and subcontractors supply high street fashion chain stores. Wholesalers primarily supply smaller retail chains and independents,
as well as discount outlets and market stalls. Some, however, do provide a source of midseason new styles for larger chain stores, facilitating responsiveness to fashion changes. In addition to UK supply, there is a tradition of export marketing among wholesalers and manufacturers.

**Inter-firm Networks**

Survey work illustrates that there is a clear division between the role of manufacturers and their subcontractors. Most manufacturers, but very few subcontractors, offer a design service. Half of the CMT units surveyed offered a pattern grading service, although the majority was carried out by the manufacturers, while sampling was divided between the assembly of production samples by CMT units, and prototype and sales samples generated by the manufacturers. CMT operations, as their name suggests were largely responsible for cutting. While manufacturers often provide a lay marker (frequently CAD generated) it is not uncommon for garment cutters to resort to manual layouts. The cutters’ skill is a mainstay of the CMT business, as surplus fabrics are often made up into extra garments and sold illegally to wholesalers and market traders as “cabbage”.

Although some manufacturers do have internal production facilities, it is more common for the bulk of garment assembly to take place in CMT units. Quality inspections are carried out at various stages, primarily on receipt of goods into the factory from homeworkers, and again at the pressing and finishing stage. Manufacturers also check the quality of incoming goods, often with 100% inspections. However, this is largely an informal practice and in some cases quality control is the responsibility of the delivery driver. Recent changes in retail standards have. However, seen an increasing amount of Quality Assurance provided by third party contractors.

One of the major characteristics of the subcontracting network, is the high dependence of subcontractors on just a small number of manufacturers, and in many cases just one customer. One of the reasons for this phenomenon is that the short-term nature of relationships and lack of planning make it difficult for CMT firms to balance the demands of more than one manufacturer. Indeed, many felt that to do so would jeopardize their relationship with their existing customer. Two of the CMT units were partially involved in
supply direct to a retail chain store that fulfilled the manufacturing function internally, and all but one of the firms supplied customers based only in London.
In contrast, manufacturers often supply not only a larger number of customers (on average 8), but also a more diverse market sector, often including a combination of market levels, retail and mail order and even corporate clothing.
Typically a manufacturer or agent may source from 10 or more subcontractors, often primarily London based, but increasingly also in other regions, such as the West Midlands or overseas in Turkey, Cyprus or Eastern Europe. Those supplying larger orders also source from China, and the Indian Subcontinent, often supported by family contacts or cultural ties. Many subcontractors express concern that an increasing proportion of their potential business is now imported through OPT arrangements. One characteristic of the relationships is the short-term duration of contracts, with the close proximity of competitors leading to undercutting.

**Flexibility**

One of the major strengths of the subcontracting system is its flexibility and ability to operate economically within short lead times and in response to fashion changes. Most of the CMT units reported lead times becoming shorter, and typically expected to be able to deliver completed goods within 1 to 3 weeks of the order being placed. Even manufacturers, with considerable sourcing and product development requirements reported lead-time capabilities of 3 to 6 weeks. Similarly order sizes have tended to decline, with CMT units accepting minimum orders of between 150 and 200 units, and experiencing an average order size of 2000 units.
In general, although the manufacturers claimed to offer mid season new styles and replenishment orders as part of their service, there is little evidence of CMT units experiencing either of these patterns. The short nature of the ordering and manufacturing cycle, which does not distinguish between pre-season and mid-season lines, is an obstacle to awareness, while CMT units are often asked to replenish goods originally made overseas or in other local CMT units depending on capacity availability, lead time and price constraints.
Added value services
Although there is evidence that even some of the more progressive manufacturers are able to offer services such as CAD, EDI and product development, there is little evidence that these developments are communicated through the supply chain. The added value services most frequently expected of CMT units tend to be associated with delivery arrangements and preparation of floor ready goods. Although not linked to their customers electronically, two of the CMT units were preparing computerized specifications to issue to their homeworkers in an effort to improve quality standards. As already mentioned, however, the flexibility of production inherent within the subcontracting system provides significant added value.

Opportunities and threats within the London garment sector
Although the sector has survived significant down-sizing, the survival of a quick response, flexible production system offers significant opportunities within the UK apparel system. However, feedback from companies themselves illustrates the lack of security that many firms (especially CMT units) experience. It is evident that, in spite of the added value that the subcontracting system offers, many supply relationships have only survived because of the low cost base on which the sector operates, facilitated by low wages, informal trading and low rates of investment. However, there is a sense in which those companies that remain have done so because of the competitive strengths that they offer, namely flexibility and reliability.

Sustainability
Within the low cost markets that the sector serves, future sustainability of the London garment sector is questionable. While retailers are tolerant towards the informality and poor conditions of much of the sector because of its ability to continue to offer low cost quick response demand exists. However, there are already signs that retailers are demanding ever-increasing standards of quality and health and safety because of pressure from public
opinion. Meanwhile, the failure of retailers and first tier manufacturers to provide financial recognition for the added-value services, such as quick response, that are demanded, subcontractors continue to operate with low margins and have little opportunity to invest. The threat of quick response competition from Eastern Europe is very real (although it is speculated that wage costs in competitor economies will rise with integration into the EU). In reality manufacturers are currently seeking sources of low cost quick response within London that can often not be economically manufactured in the UK on a sustainable basis but which will be undertaken by some factories on a loss-leading basis in an attempt to generate additional business.
Section V Tables

Figure 5.1  Buyer-Supplier Partnership Frequency
Figure 5.2  Nature of partnerships

Table 5.1  Delivery and replenishment frequency by retail type

To add

Table 5.2  Inventory Levels

<table>
<thead>
<tr>
<th></th>
<th>1991</th>
<th>1995</th>
<th>Percentage change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric/ yarn holding</td>
<td>5.6 weeks</td>
<td>5.4</td>
<td>-4%</td>
</tr>
<tr>
<td>Trim/ accessory holding</td>
<td>4.9 weeks</td>
<td>5.4</td>
<td>+10%</td>
</tr>
<tr>
<td>Ready to sew goods</td>
<td>14.9 days</td>
<td>11.5</td>
<td>-23%</td>
</tr>
<tr>
<td>Work-in-progress</td>
<td>4.5 weeks</td>
<td>4.1</td>
<td>-9%</td>
</tr>
<tr>
<td>Finished goods</td>
<td>3.7 weeks</td>
<td>5.3</td>
<td>+43%</td>
</tr>
</tbody>
</table>
Table 5.3  Services offered to retailers

<table>
<thead>
<tr>
<th>Service offered / demanded</th>
<th>% of average volume 1991</th>
<th>% of average volume 1995</th>
<th>% of aggregated volume 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar-code at SKU level</td>
<td>13</td>
<td>52</td>
<td>72</td>
</tr>
<tr>
<td>Bar-code at non-SKU level</td>
<td>nil</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Manufacturers label</td>
<td>22</td>
<td>38</td>
<td>21</td>
</tr>
<tr>
<td>EDI</td>
<td>5</td>
<td>12</td>
<td>29</td>
</tr>
<tr>
<td>POS data: individual stores</td>
<td>nil</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>POS data: aggregated stores</td>
<td>3</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Bar-coded shipping containers</td>
<td>2</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Model Stock Program</td>
<td>2</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>Automatic replenishment, manufacturer determined</td>
<td>nil</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Delivery to individual stores</td>
<td>14</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Floor ready merchandise</td>
<td>27</td>
<td>37</td>
<td>47</td>
</tr>
</tbody>
</table>

Source HCTAR survey data
Table 5.4 Variations in standard and quick response lead times.

<table>
<thead>
<tr>
<th>Concept/ product development</th>
<th>Standard lead time</th>
<th>Quick response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>longest</td>
<td>shortest</td>
</tr>
<tr>
<td>Concept/ product development</td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td>Sourcing and suppliers</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>Production sampling, presentation, orders</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>Cutting, making up, inspection &amp; packing</td>
<td>28</td>
<td>3</td>
</tr>
<tr>
<td>Concept to final inspection/ packing of all goods</td>
<td>64</td>
<td>9</td>
</tr>
<tr>
<td>Concept to first goods despatched</td>
<td>44</td>
<td>8</td>
</tr>
<tr>
<td>Despatch and sales</td>
<td>56</td>
<td>3</td>
</tr>
</tbody>
</table>

* data not obtainable

Figure 5.3 Information sharing technologies
Figure 5.4 Types of information sharing
Figure 5.5  Changing Global Production Regimes

![Graph showing changing production regimes (1990-1994)](image)

Table 5.5: Product Proliferation

<table>
<thead>
<tr>
<th></th>
<th>Number SKUs</th>
<th>New styles introduced</th>
<th>Styles dropped</th>
<th>net gain (loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>2251</td>
<td>1074</td>
<td>1106</td>
<td>-32</td>
</tr>
<tr>
<td>1995</td>
<td>2388</td>
<td>1432</td>
<td>1365</td>
<td>+67</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+138</td>
</tr>
</tbody>
</table>

Table 5.6 Comparative production throughput times

<table>
<thead>
<tr>
<th></th>
<th>Team-based production Average throughput time (weeks)</th>
<th>Progressive bundle system Average throughput time (weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewing operations</td>
<td>4.79</td>
<td>6.95</td>
</tr>
<tr>
<td>Non-sewing operations</td>
<td>2.46</td>
<td>2.09</td>
</tr>
<tr>
<td>Total throughput time</td>
<td>7.25</td>
<td>9.04</td>
</tr>
</tbody>
</table>

Table 5.7 Upstream supplier relations

To add

Table 5.8 Lean Manufacturing? Piece Goods Supplier- Manufacturer relations

To add
<table>
<thead>
<tr>
<th></th>
<th>1-4</th>
<th>5-10</th>
<th>11-24</th>
<th>25-49</th>
<th>50-99</th>
<th>&gt;100</th>
</tr>
</thead>
<tbody>
<tr>
<td>East London</td>
<td>37%</td>
<td>34%</td>
<td>21%</td>
<td>7%</td>
<td>2%</td>
<td>1 firm</td>
</tr>
<tr>
<td>UK</td>
<td>61%</td>
<td>20%</td>
<td>9%</td>
<td>5%</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Nomis: 1993 Census of Production