

Chapter 1

What is the Apparel Industry?

A. Introduction: the textile-apparel pipeline

The textile-apparel pipeline is a series of interrelated activities which originates with the manufacture of fibre and culminates in the delivery of a product into the hands of the consumer. Figure 1.1 illustrates the pipeline. The focus of this text will be that part of the pipeline contained in the highlighted box – the manufacture of garments. This area of activity can itself be subdivided into various stages (see Fig. 1.1). In many respects the crucial element is assembly – the sewing process – because this constitutes some 30% of the total cost of a garment and has remained obstinately resistant to automation. It is no exaggeration to say that this single fact is the defining feature of the apparel manufacturing process.

The issue of the relationship between the words ‘clothing’, ‘garment’, ‘apparel’ and ‘fashion’ will be dealt with below. The word ‘pipeline’ implies that there is a logical connection or progression between the stages of the process of converting an input into a product for the final consumer. The term ‘supply chain’, in contrast, will be reserved for situations in which companies, although legally independent, have agreed to work together to achieve a common goal. It is clearly possible for a pipeline to exist but not to be organised into a supply chain. Indeed, it could be argued that for many years, the failure of the UK textile and apparel manufacturing sectors to achieve meaningful co-operation was a significant factor in the evolution of the two sectors.

In the words of the UK Fashion Report (EMAP, 1998/99, p. 154):

‘The main dynamic holding the industry back is the largely adversarial relationship of manufacturers and retailers. This inhibits best practice and generates supply chain inefficiencies which contribute to the lack of a competitive edge.’

Briscoe (1971, p. 1), for example, talks of ‘these industries’ and emphasises that the ‘clothing industry has fared differently’ from the textile industry. The whole tenor of her introductory chapter to the major UK textbook on the sector

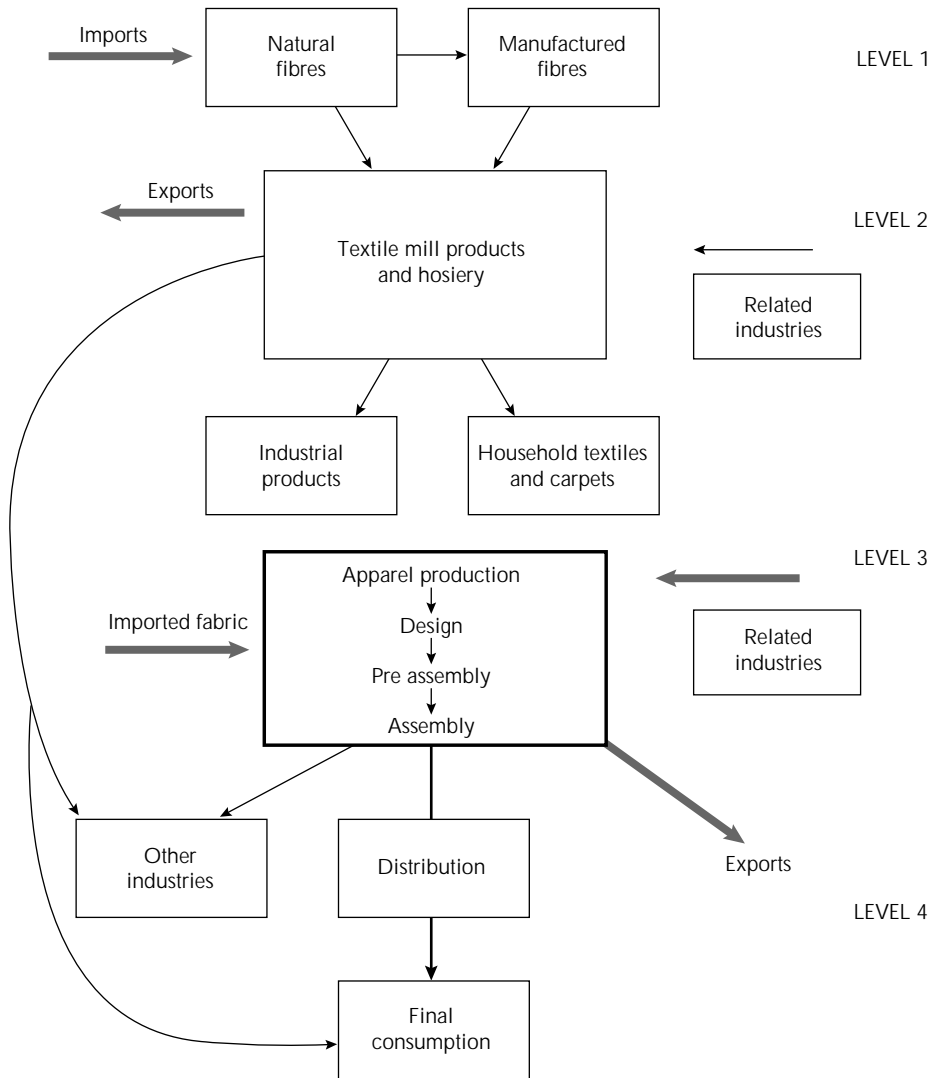


Fig. 1.1 The textile – apparel pipeline.

stresses the difference between the textile and clothing industries rather than their inter-connectedness. A more modern view would stress the importance of all levels in the pipeline working together to achieve competitive advantage in world markets. In respect of the way in which, historically, the various levels of the pipeline have failed to co-operate in the UK the Briscoe view is, somewhat paradoxically, probably correct.

Therefore, while the focus of this text will be the garment manufacturing cell within the pipeline, attention will be continually focused on the issue of pipeline management and, in particular, upon efforts to reduce the length of the

pipeline in terms of the number of days taken to move a product concept from one end of the pipeline to the other.

A highly simplified version of the progression through the pipeline would consist of Level 1 (the manufacture of fibre) which becomes the input into Level 2 within which fabric is manufactured then sold to companies manufacturing industrial textiles, household textiles or apparel (level 3). The completed product then has to be distributed to the final consumer in a variety of ways: in the case of the apparel manufacturing industry this process is usually achieved via some form of retailer or distributor in Level 4.

In practice the picture is somewhat more complex. For example, there can be a link between the natural and man-made fibre cells at Level 1. Similarly, as the OECD (1983) pointed out:

‘Technological change has blurred the distinction between these processes. In some cases . . . the basic processes of yarn and fabric production have merged. In other cases, such as seamless hosiery fabric, production has incorporated the product assembly stage.’

Hence hosiery production is often (in the UK) classified within the primary textile sector. Finally, there is no requirement for all four levels to be within any one country – nor is there any need for any one level in a given country to be linked solely with the other levels in the same country. Raw materials at Level 1 may be imported as they were historically in the UK (see Table 1.1). Fabric may be exported and a classic example would be cotton cloth from the UK prior to World War I. At Level 3 fabric may be imported while the finished product may be exported.

Table 1.1 Imports of textiles (£ millions)
1800–1980.

Year	Raw Cotton	Raw Wool
1800	1.8	0.5
1829	7.3	0.7
1850	21.5	2.0
1854/56	22.5	7.0
1900	41.0	22.7
1913	70.6	35.6
1930	45.0	43.5
1950	160.6	196.2
1970	50.3	92.6
1980	72.8	197.9

Source: Mitchell, B. (1988), *British Historical Statistics*, Cambridge University Press, Cambridge, p. 462.

B. Are clothing and fashion synonymous?

A number of words can be used to describe the sector which is the subject of this book, e.g. clothing; garments; apparel or fashion. The latter word has, to many commentators, a rather special meaning being associated with art, creativity or uniqueness. Let us start by examining some generally accepted definitions of the word 'fashion'.

According to Sproles (1981) fashion is:

'a temporary cyclical phenomena adopted by consumers for a particular time and situation.'

Easey (1995, p. 1) argues that 'fashion involves change, defined as a succession of short term trends' while Rogers and Gamans (1983, p. 7) define fashion as 'any form, custom or style'. Rath (1994, p. 17) considers fashion to be 'a look or style that is popular at a given time' while Stone (1990, p. 53) talks about 'the style or style of clothing . . . worn at a particular time by a particular group of people'. Nagasawa (1995, p. 175) regards fashion as 'a process in everyday acts of appearance management'.

These definitions all stress the twin features of acceptance and change. It is the fact of change which produces so many problems for clothing manufacturers but as Easey (1995, p. 1) emphasises, the role of change in fashion markets is crucial when he argues that:

'[the] industry has a vested interest in developing new products for the customer at the expense of existing items: this process is known as planned obsolescence.'

This seems a long way away from the concept of creative design or art for its own sake. Easey (1995, p. 2) argues that the idea that fashion garments should be viewed as an art form is held more strongly in France and Italy than in the UK. As Jones (1997, p. 5) observes:

'the study . . . of clothing manufacturing occupies, in the UK, a somewhat uneasy middle ground position between textiles at one end of the supply chain and the more traditional fashion design school which approaches the subject from an art-based tradition or culture.'

In the UK this dichotomy may have its origins in the historical evolution of design education, e.g. in Manchester it was determined in 1853 to locate design education in the Manchester School of Art. This was seen (Fowler, 1993, p. 10):

'as a victory for those who believed that the school's future lay in providing a more general art education than in the teaching of design skills. This direction was followed despite the fact that the initial impetus to the opening

of a design school in Manchester in 1838 owed its origins to a concern over British industry losing markets to foreign competitors because of poorly designed products.’

The boundaries of the ‘fashion’ sector stray way beyond the garment market, e.g. in the watch market the success of the Swatch watch owed much to its repositioning as a trendy, fashion item. In 1999, Swatch has gone as far as to collaborate in the production of a small car. Is this now also part of the fashion industry?

The majority of garments sold do not fall into the ‘art form’ category. Nor can, by definition, all garments be, at any one time, ‘fashionable’. On the other hand, most of us do change our clothes long before they are functionally worn out. From this point of view most garments are probably influenced to a greater or lesser degree by trends which have filtered down from the high fashion zones. Therefore, the argument over the extent to which there is a ‘fashion industry’ inside ‘the clothing industry’ is, while not uninteresting academically, probably something of a straw man or blind alley in terms of promoting an understanding of the current and future problems of the industry as part of the pipeline outlined in Fig. 1.1. Accordingly, in the remainder of this text the words ‘clothing’, ‘garment’, ‘fashion’ and ‘apparel’ will be used as if they were interchangeable and the word ‘apparel’ will be used henceforth to represent them all.

C. The importance of apparel manufacture to and in the textile pipeline

As output flows through the pipeline it should be possible to identify the relative importance and role of the various elements within the pipeline itself. This exercise can be conducted both on an historical basis and in current terms. In practice it is extremely difficult to identify the relative size of the various elements in the pipeline on a historical basis because most textile histories tend to concentrate on the cotton textile sector and, secondly, the Census of Production did not start until 1907. As Briscoe (1971, p. 2) notes, information on clothing ‘is more difficult to obtain’.

Figure 1.2 attempts to summarise the historical importance of the primary textile and apparel manufacturing sectors to the UK economy in terms of measures of output, employment and trade. On the basis of these figures – and recognising that the measures are not perfect – a tentative conclusion would be, first, that the primary textile sector was approximately twice as important to the UK economy as apparel manufacture and, second, that the role played by the apparel sector in the UK economy as a whole had, by the 1960s, become

Nineteenth Century

1812	Textiles	= 7–8% of output (D + C)
1820	Textiles	= 4% of output (M + D)
1830	Apparel	= 2% of exports (B)
	Cotton	= 50% of exports (B)
	Cotton	= 48.5% of exports (R)
1934/6	Apparel	= 438 000 jobs (G)
1836	Textiles	= 11% of output (D + C)
1851	Textiles and apparel	= 21% of the occupied population (D + C)
1870	Textiles	= 9% of output (B; D + C)
1871	Textiles and apparel	= 18% of occupied population (D + C)
	Apparel	= 540 900 jobs (G)

Twentieth Century

1907	Textiles	= 2.3% of output (M + D)
1911	Apparel	= 800 000 jobs (G)
1913	Textiles and apparel	= 35% of exports (B)
1923	Textiles	= 1 312 000 jobs (B)
	Apparel	= 651 000 jobs (B)
1924	Apparel	= 25% of output (B)
1925	Textiles	= 5.2% of output (B)
1931	Apparel	= 708 000 jobs (G)
1935	Textiles	= 3.5% of output (B)
	Apparel	= 2.1% of output (B)
1951	Apparel	= 609 000 jobs (G)
1954	Apparel	= 470 000 jobs (C)
1958	Apparel	= 411 000 jobs (C)
1962	Apparel	= 1.1% of output (B)
1963	Textiles	= 2.6% of output (B)
1969	Textiles	= 580 900 jobs (B)
	Apparel	= 390 000 jobs (B)
1973	Textiles and apparel	= 2.2% of output
1996	Apparel	= 1.7% of output; 3.8% of employment and 2.2% output

Sources: B = Briscoe, L. (1971) *The Textile & Clothing Industries of the UK*, Manchester University Press.

C = Clayton, D. (1999) private correspondence with author.

D + C = Deane, P. & Cole (1969) *British Economic Growth 1688–1959*.

M + D = Mitchell, B. & Deane, P. (1962) *Abstract of Historical Statistics*.

R = Rose, M.B. (1991) *International Competition and Strategic Response in the Textile Industries Since 1870*, Frank Cass.

G = Godley, A. (1996) *The Emergence of Mass Production in the UK Clothing Industry* in Taplin, I. & Winterton, J. *Restructuring Within a Labour Intensive Industry*, Avebury.

Note: 1996 figures from Table 2.2 are based on percentages of manufacturing totals.

Fig. 1.2 Historical estimates of the importance of textiles and apparel in the UK economy.

rather trivial on an output basis at around 1% of GNP. Its importance as an *employer* was, of course, always more significant given the labour intensive nature of the production process.

As Godley (1996, p. 15) demonstrates, the clothing industry was, in historical terms, of major importance:

‘... as a source of employment ... especially of female labour. The clothing industry for most of this period (1851–1951) was the second most important source of non-agricultural female labour. However, the trends are fairly clear. The clothing industry’s *importance to the economy was slowly declining* [author’s emphasis] – from just under 2.5% of the population in 1851 to ... only 1.4% of the population in 1951.’

As Deane and Cole (1969) pointed out in the mid-nineteenth century the textile and clothing sectors provided jobs for 10 per cent of the population, or 21% of the occupied population. Estimates of employment between 1861 and 1939 have been given in Table 1.2, while the relative size of the elements of the pipeline in terms of exports are shown in Table 1.3. Even then, however, Mitchell (1962, p. 191) concluded that the impact of textiles ‘on the national economy was still small in absolute terms’. The share of national output accounted for by clothing and textiles is shown in Tables 1.4 and 1.5. In terms of gross output, Godley (1996) concluded that in current price terms the output of the sector had risen by about seven times between 1907 and 1954, but that most of this increase had been caused by inflation. In real price terms (column RP(a) in Table 1.4) the increase was only 150%. On the basis of the 1980 real

Table 1.2 Employment in the textile pipeline (thousands of people).

	Cotton	Wool	Silk	Linen	Clothing
1806 ¹	274				518
1862 ^{1,2}	455				
1835 ²	219	55	31	33	
1896 ¹	533				706 (1891)
1907 ^{1,2}	577	261	29	151	796 (1911)
1923 ²	568 (1312 ^T)	269	37	82	580 ²
1930 ²	564	240	78*		708 ¹ (1931)
1932 ²					605 ²
1938 ¹	378				
1940 ²	383	231	80*	77	
1947					551 ²
1950	316	222	105*	66	548 ² (1951)
1958	952 ^T				
1960 ²	285 ^T	204	40**		387 ² (1961)
1965	829 ^T				563
1970 ²	172+	159	53**		
1978 ²	92+ (490 ^T)	79	38**		378 ²
1981 ²	175 ^T				296 ²

Sources: (1) Mitchell, B. & Deane, P. (1962) *Abstract of British Historical Statistics*, Cambridge University Press, Cambridge.
 (2) Mitchell, B. (1988), *British Historical Statistics*, Cambridge University Press, Cambridge.

Notes: * Silk and man made fibres.
 ** Man made fibres only.
 + Spinning and weaving of cotton.
 T All textiles.

Table 1.3 Exports from the textile pipeline (£ millions).

Year	Cotton	Wool	Man made fibres	Linen	Silk	Hats, apparel, etc.
1814	20.10	6.4		1.7	0.5	—
1829	17.4	4.7		1.8	0.3	1.0
1850	28.3	10.0		4.8	1.3	2.5
1900	69.8	20.2		6.2	2.1	8.0
1920	401.4	139.3	3.0	9.5 (1913)	2.1 (1913)	13.3 (1913)
1930	87.6	35.5	5.9	6.3	1.3	
1940	49.3	24.2	7.6			
1950	126.7	82.8	45.7			7.7

Sources: Mitchell, B. & Deane, P. (1962) *Abstract of British Historical Statistics*, Cambridge University Press, Cambridge.
 Mitchell, B. (1988), *British Historical Statistics*, Cambridge University Press, Cambridge.

Table 1.4 Gross output (£ millions) of the textile pipeline.

Date	Clothing			Textiles		TCL			FDT	Chemicals
	CP	RP(a)	RP(b)	CP	RP(a)	CP	RP(a)	RP(b)	CP	CP
1907	96	193	1,778	336	676	458	921	8,481	283	90
1924	178	156	1,447	762	668	987	865	8,024	670	220
1930	176	169	1,556	431	414	659	633	5,832	662	199
1935	173	179	1,765	443	459				665	206
1945	527	252	2,648	1,479	708				2,644	
1948	324	155	1,434			1,968	942	8,708	2,632	762
1951	479	186	1,736						3,819	1,283
1954	504	199	1,833						3,235	1,663
1963						3,204	10,369		5,347	2,900
1970						4,420	11,946		9,157	5,158
1979						12,093	13,173		30,579	27,624

Sources: 1907–45 Mitchell, B. & Deane, P. (1962), p. 270.

1948–54 Godley, A. (1996), p. 10.

Key: FDT = Food, Drink, Tobacco.

TCL = Textiles, Clothing, Leather.

Notes: (1) RP(b) 1980 real prices, author's own calculations based on data from The Economist (1995), *Economic Statistics* 1990–1983.

(2) RP(a) used the 1938 deflator in Godley (1996).

(3) The percentage shares of all UK production were in current price terms as follows:

	1907	1963	1970	1979
Clothing	5.4	NA	NA	NA
TCL	19.0	9.3	8.6	5.9
FDT	16.0	15.5	17.8	15.0
Chemicals	5.1	8.4	10.0	13.5

price series the increase is just over 100%. In order to consider the period after 1954 it is necessary to move to the combined Textiles, Clothing and Leather series. The real increase between 1948 and 1963 was similar to the current price increase at 150% while the increase between 1963 and 1979 was about 400% in current terms but only just over 100% in real terms.

Table 1.5 Net output (£ millions) of the textile pipeline.

Date	Clothing			Textiles		TCL			FDT	Chemicals
	CP	RP(a)	RP(b)	CP	RP	CP	RP(a)	RP(b)	CP	CP
1907	40	80	741	95	191	141	284	2,611	87	27
1924	73	64	593	221	194	308	269	2,504	172	73
1930	77	74	681	147	141				187	77
1935	79	83	806	157	162		249	2,541	203	89
1945	210	101	1,055	484						
1948							733	3,243	525	269
1963							1,236	4,000	1,292	1,068
1970							1,838	4,968	2,485	2,031
1979							5,131	5,589	8,359	9,084

Sources: 1907–45 Mitchell, B. & Deane, P. (1962).
 1948–79 Mitchell, B. (1988) as Table 1.2.

Key: FDT = Food, Drink, Tobacco.
 TCL = Textiles, Clothing, Leather.

Notes: (1) Real prices computed using data in *The Economist* (1995), *Economic Statistics* 1990–1983.
 (2) RP(a) used the 1938 deflator in Godley (1996).
 (3) The percentage shares of all UK production were in current price terms as follows:

	1907	1963	1970	1979
Clothing	5.6	NA	NA	NA
TCL	13.3	8.6	8.4	6.0
FDT	12.2	9.0	11.4	9.8
Chemicals	3.8	7.4	9.3	10.6

In terms of net output the apparent fivefold increase in apparel production between 1907 and 1945 again turns out to be largely an illusion caused by inflation. In real terms (both price series) the increase was about 140%. In the period 1948–1979 the current sevenfold price increase falls to a rise of about 200% when the effect of inflation is removed.

Historically the woollen industry was initially predominant within Level 1 of the pipeline. In Berg’s (1994, p. 40) words:

‘The woollen industry still dominated the whole industrial sector at the beginning of the nineteenth century and was still more important in terms of value added than the cotton industry until the 1820s.’

By 1831 cotton had overtaken wool in importance. In more modern times the trend has been for the importance of man-made fibres to increase relative to that of the natural fibres, e.g. OECD (1983, p. 38) reported that by 1979 man-made fibres were responsible for 67% of world fibre production as compared to cotton at 24% and wool at 4%. In the UK, man-made fibre production is classified in official statistics as part of the chemical industry.

In the UK in 1996 (see Table 1.6) the net output of the fibre section of the pipeline was £575.3 million as against £3121.6 million for the apparel manufacture cell. The net output of the three elements of Level 3 was £4196.0 millions. The hosiery cell within the primary textile sector amounted to £304.5

Table 1.6 Relative size of elements of the pipeline, 1996 (£ millions).

	Net output	Gross output	Sales
Apparel Manufacture 1996 (Division 18)	3,121.6	6,173.0	6,160.3
Fibres, of which	575.3	1,572.2	1,576.6
Cotton	93.7	220.7	220.4
Wool	126.4	387.4	387.4
Worsted	202.3	586.1	588.7
Weaving, of which			
Cotton	165.4	372.9	372.7
Wool	72.8	177.1	177.4
Worsted	95.4	245.9	245.3
Household textiles	457.4	1,075.2	1,071.8
Carpets	617.0	1,399.8	1,361.9
Hosiery	304.5	582.0	575.5
All Division 17 (textiles)	5,165.9	11,484.3	11,445.3
Man-made fibres (Division 24.7)	358.6	932.7	922.8

Source: Office for National Statistics, PA1002 Manufacturing (Summary Volume).

million of net output. In comparison the man-made fibres sector (classified as part of the chemical industry) had a net output of £358.6 million.

The relationships between the various elements of the pipeline can be explored by examining sales from one level to the next. According to Briscoe (1971, p. 49) the destinations of woven cloth and man-made fibres (by area) were 41% to clothing; 28% to household textiles and furnishings and 31% to industry. (These figures applied to 1968.) Taylor (1990) quotes a figure for EU fibre consumption (for 1987 and by weight) of 27.4% for clothing, 18% for carpets and household uses and 54.6% for industry. The Sector Review (1994, p. 8) for the textile sector states that ‘the markets for textiles are varied with no single dominant player’ but that the largest consumer of textile products (outside the textile sector itself) is the clothing sector which takes 22% of intermediate demand for textiles. The purchasers of textile products in the UK are shown in Table 1.7. It can be seen that 63% of the output of the primary textile sector (the second level) in our pipeline goes to final demand and 37% to other industries as intermediate demand. Of the intermediate demand some 22% goes to the apparel cell in our pipeline diagram. This is more than double the percentage directed into any other industry. Therefore, the apparel industry is of great importance within the textile pipeline. However, it must be stressed again, that this does not necessarily mean that the interests of the cells within the pipeline are synonymous with one another. As Moore (1999, p. 261) puts it:

Table 1.7 Input–output relationships in the textile pipeline. (UK Purchases of Textile Products [defined as Division 17 SIC 1990].)

	£s millions	Percentage of intermediate	Percentage of total
The textile industry	1,705	20	7
Carpets	428	5	2
Knitted and crocheted goods	512	6	2
Clothing (division 18)	1,883	22	8
Leather	57	1	
Motor industry	580	7	
Distribution industry	845	10	
Construction	167	2	
Hotels	845	10	
Total intermediate	8,662		37
Households (consumers)	10,433		45
Total final	14,528		63
Total demand	23,190		

Source: Office for National Statistics (ONS, 1999a) Sector Review Textiles (Qu 1, 1999).

- Notes: (1) Intermediate demand is that expressed by other industries.
(2) Final demand is that expressed by the consumer.
(3) The number of individual numbers selected as examples will not total to intermediate demand.
(4) Percentages rounded up to the nearest whole number.

‘The textile manufacturers have always presented their case as if they had a common cause with the clothing producer. This is incorrect; protection in the textile industry raises the price of cloth, the input into the clothing industry.’

Where does the output of the apparel cell in the pipeline go to? Ninety-five per cent of the output of the apparel sector goes into final (consumer) demand – albeit via the distribution sector. Sales to other industrial uses (intermediate demand) are rather rare with the only sectors representing substantial markets being health and recreational services (see Table 1.8).

Finally, it must be recognised that, irrespective of the relative size of the elements in the pipeline, consumer goods markets are virtually the *raison d’être* of the apparel pipeline. The health of the sector depends almost exclusively on trends in the apparel market – industrial sales are extremely insignificant. It does not, of course, follow from this that companies in the apparel manufacturing cell of the pipeline will hold the dominant role: individually, companies have been too small to do this, as will be seen in Chapter 2.

The timing of interactions between the various cells in the pipeline is driven by the demands of the final market place. In Forza’s (2000, p. 139) words:

‘The decisions and activities of the textile-apparel chain can be examined by referring both to the characteristics of the physical activities of transformation and to the length of time required for them.’

Table 1.8 Purchases of products of the apparel industry (Division 18 SIC).

	£ (millions)	Percentage of intermediary	Percentage of total demand
Textiles	29	2	
Division 18	176	13	1
Leather/footwear	9	1	
Health	249	18	
Recreational services	107	8	
Hotels	75	6	
Total Intermediate	1,354		5
Household (consumers)	19,971		79
Total Final	24,023		95
Total Demand	25,377		

Source: Sector Review Clothing, Footwear and Leather (Qu 1, 1999).

Note: Gaps in the table indicate insubstantial proportions.

This is facilitated by an examination of the so-called Production Stage Chart (PSC) – see Fig. 1.3. In this typical pipeline the major feature is that there is a six month lapse between the placing and receiving of an order by the retailer. In addition, future orders must be placed before final current sales levels are known. If deliveries to the retailer are scheduled for (say) early 2001, then garment manufacture will typically begin in autumn 2000 and fabric production in spring 2000. However, many fabric orders – based on estimates of previous sales – must be placed by the apparel manufacturer before new orders have been received from the retailer. It is clear that the system contains many built-in sources of error and potential waste. The attempt to modify this traditional scenario consequent upon the adoption of Quick Response strategies will be considered in Chapter 8.

It has to be repeated at this point that there is no necessity for the entire pipeline to be located in any single country. The primary textile sector supplying the UK apparel cell in the pipeline could be anywhere. In fact, the import penetration rate in the UK textile market is (ONS, 1999a) 48% in spinning and 92% in weaving. Of the 63% of the output of the primary textile sector which goes to final demand some 27% is in fact exported. The consumer could also be anywhere – some 40% of the output of the UK apparel sector is exported. There is even no real need for all the elements *within* the apparel cell in Fig. 1.1 to be in the same place. Increasingly the activities within the total pipeline will be geographically dispersed across national boundaries.

As will be seen in Chapter 3, there has been a massive global shift of apparel production to the so-called developing regions. In addition, the assembly operation within the apparel production cell of the pipeline has been moved offshore by many UK and Western European apparel producers (see Chapter

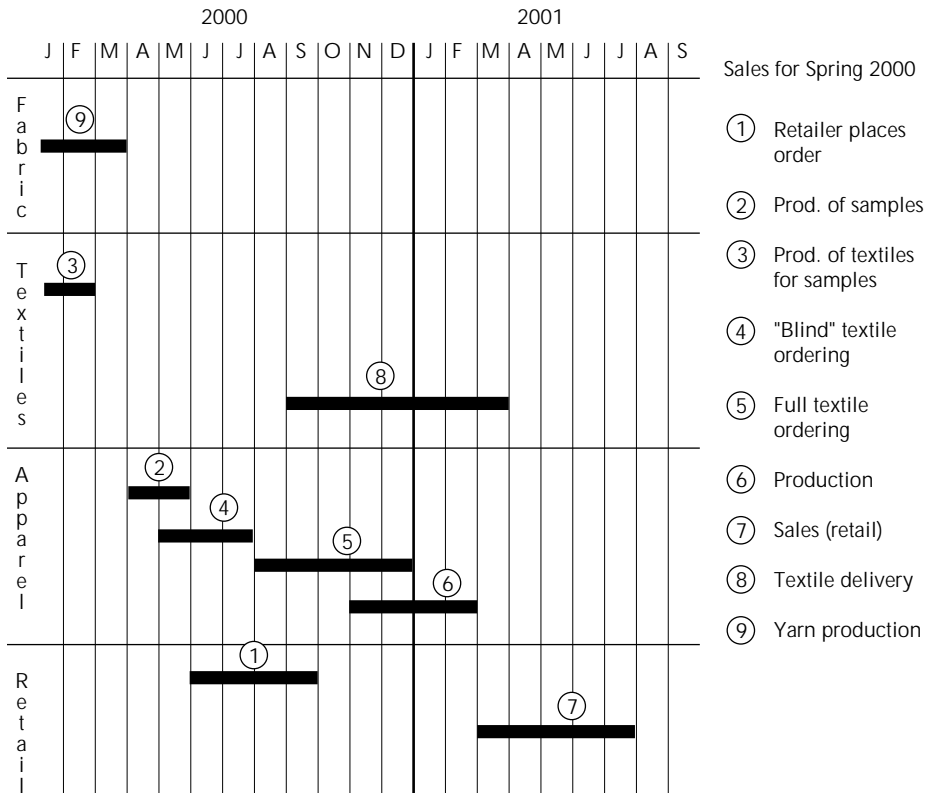


Fig. 1.3 The production stage chart (based on Forza (2000)).

8). In fact, this internationalisation of the pipeline has always been the case. The explosive growth of the Lancashire cotton industry in the nineteenth century was based on imports of raw cotton from India and America (see Table 1.1). Additionally, as Briscoe (1971, p. 14) points out the expansion of the textile sector was linked to exports, so that by the 1880s, 80% of cotton cloth was exported. Saul (1960, p. 34) in his analysis of UK trade between 1870–1914 shows that even in 1913 Britain was still responsible for 60% of world trade in cotton goods.

Clearly, the initial growth of an apparel manufacturing sector in the UK was promoted by the earlier expansion of the primary textile sector. This was true, for example, in the USA where Dickerson (1995, p. 32) states that:

‘The American apparel industry did not begin to develop, at least to a significant degree, for nearly a century after textile production was industrialised.’

And also in the UK where, as Briscoe (1971, p. 14) notes the clothing industry:

‘changeover to the factory system came later and was associated with the introduction of the Singer sewing machine into England in 1851.’

However, as has been noted, most of the cotton cloth produced in the UK was exported. Rose (1991, p. 3) noted that the British cotton industry was:

‘throughout the nineteenth century export orientated so that in 1882–84 UK cotton piece goods represented 82% of total world exports of those products.’

The divide between local elements within the textile/apparel pipeline seems to have evolved very early and to have persisted throughout the years. Dupree (1996, p. 273) in an analysis of the industry between the wars singled out the fact that:

‘there were separate associations for spinning, weaving and manufacture . . . (and that) these groups knew each other only slightly and there tended to be hostility among them’

as one of the weaknesses of the sector. It could be argued that one of the weaknesses – both historically and currently – of the UK-based textile-apparel pipeline was that it never really possessed the characteristics of a co-operative supply chain. Relations between the levels in the pipeline were, and still often are, adversarial rather than collaborative. Morrison (1996, p. 243) wrote of the lack of integration of spinning and weaving in the late nineteenth century, describing ‘a fight for the meagre spoils’.

Fraser (1948, p. 103) stated that apparel manufacturers of the day complained that: ‘wherever we can we buy locally but this is seldom possible’, while Levitt (1996) writing about the 1980s, commented that:

‘most manufacturers complained that home suppliers were unable to meet prices or deadlines or just did not exist.’

Miles (1968, p. 94) wrote that the changes taking place in the outlets for textile products were having an impact on the industry itself in that:

‘about 50% of Lancashire fabric produced goes to the clothing industry and here it meets strong foreign competition in the market selling to industrial customers (the apparel manufacturers) who regard fabric as their main raw material’

and as a *cost to be minimised*. The same author (1968, p. 81) showed that from a position of having a positive trade balance in cotton cloth in 1959 the UK had moved to a negative balance by 1966 as UK apparel manufacturers increasingly switched to external suppliers. As late as 1990, Haines (1990, p. 4) still felt justified in arguing that feedback:

‘from apparel manufacturers and fabric suppliers to date shows a clear need for greater co-operation between the two sectors of the industry’

while Howarth (1990, p. 34) complained that:

‘co-operation between manufacturing and textile companies along with common planning and EDI communications are noticeably lacking in the UK.’

In the 1990s the battle ground has seemingly moved to Level Four in the pipeline with Banning (1994, p. 44) writing that:

‘the relationship between the manufacturer and retailer for the past thirty years has been largely a matter of “dog eat dog”.’

It is interesting to note that Rose (1991, p. 175) traces the origins of retail power back to the 1880s, when ‘manufacturers and retailers began to forge direct links’. Therefore, it is clear that there is no logical necessity for a negative change in the size of one element of the pipeline in any one country to be followed by a similar change in any other element. Historically, the apparel manufacturing cell continued, in Levitt’s words (1996 , p. 154):

‘to flourish . . . despite the decline in the cotton industry so that whilst the cotton industry steadily declined, clothing production expanded until the 1960s.’

The relative survival (in employment terms) of the apparel manufacturing sector in comparison to the textile industry is well illustrated earlier in Table 1.2.

As Godley (1996, p. 10) observes the gross output of the clothing sector rose from £135 million in 1907 to £198 million in 1995 although by the early 1950s the industry’s importance as an employer was already slowly declining.

Output growth from 1948 to 1958 is shown in Table 1.9. This stagnation (and decline 1955–8) effectively predates any massive surge in imports which did not really occur until the 1970s and 1980s (see Table 1.10). It could, of course be argued that the fate of the entire pipeline in the UK would have been different if the various elements had behaved more co-operatively. This issue will be considered in more detail in Chapter 7.

The pipeline relationships described above have been evaluated in terms of a sales relationship between the various cells. However, as Hunter (1990, p. 150) points out:

‘the pipeline is not only a marketing and manufacturing pipeline, it is also a technical pipeline – the sectors are connected in all respects.’

The major technological advances of the 1950s were made upstream (at the

Table 1.9 Output changes in the UK apparel sector (1948–1958, £ millions).

Year	Clothing
1948	216.3
1950	227.4
1955	306.5
1958	293.1

Source: *Annual Abstract of Statistics*, 1959.

- Notes: (1) In this table 'Clothing' is defined as outerwear, underwear and gloves (excluding fabric gloves).
 (2) The output of socks and stockings rose from £587.8 millions in 1948 to £638.9 millions in 1958 in current prices.
 (3) In terms of real (1980) prices the figures are £957 million in 1958 and £1014 million in 1958 so that the percentage growth is reduced from 36% in current terms to 6% in real terms.
 (4) The author is grateful to David Clayton of the University of York for providing this data.

fibre end of the chain) and have moved progressively downstream through the textile mill cell (in the 1970s); the apparel sector (in a more limited fashion) in the 1980s to the information technology revolution in retailing in the 1990s. As Hunter (1990, p. 150) observed:

'as the focus of technology moves downstream it has placed increasing demands on the upstream supplier.'

The same author illustrates this effect by reference to the incompatibility between the traditional fabric defect and shade variability and the inventory requirements and automated cutting implications of modern Quick Response strategies.

New (1993) demonstrated how a change in dyeing technology could affect throughput throughout the entire pipeline.

D. The size and importance of the apparel manufacturing industry within the UK economy

(i) An historical perspective

The main focus of this text is to be forward looking. However, it will be useful to review the evidence for the decline of the pipeline in the UK for two reasons.

Table 1.10 Imports of apparel into the UK.

Year	£ millions (current prices)	Index (1950 = 100)
1920	15.7	144
1930	21.6	198
1935	8.5	78
1937	10.9	100
1947	6.1	56
1948	5.2	48
1949	6.4	59
1950	10.9	100
1951	11.2	103
1952	8.4	77
1953	8.6	79
1954	13.4	123
1955	18.4	169
1956	23.3	214
1957	26.2	240
1958	29.9	274
1959	41.3	379
1960	58.1	533
1970	170.4	1,563
1975	629.0	5,771
1980	1,584.7	14,539

Sources: (1) *Annual Abstract of Trade of the UK*, Vol 1, 1947–1959, HMSO, London.

(2) For other years outside 1947–1959, see Mitchell, B. (1988), p. 479.

Notes: (1) Apparel here is defined as Clothing, Footwear, Travel Goods and Bags.

(2) The author is grateful to David Clayton of the University of York for providing much of this data.

(3) In real terms (1980 prices) the increase was from £30 millions in 1947 to £46 millions in 1950; to £49 millions in 1954 and then up to £144 millions in 1959.

First, because any realistic attempts to formulate potential future policies must be grounded on an informed view of how the present situation has developed. Second, because the literature is dominated by the history of the primary textile sector (and more especially by cotton textiles) it is important, from the point of view of this text with its emphasis upon the apparel manufacturing sector, to obtain a clear view of the relationship between the two sectors. The historical development of the textile and apparel manufacturing sector has been copiously documented elsewhere (Godley, 1996; Rose, 1991; Edwards, 1967; Baines, 1966; Kerridge, 1988; Rose, 1996 and Singleton, 1991) and will be referred to only briefly here. As Dicken (1998, p. 233) notes, the textile industry:

‘was the archetypal industry of the industrial revolution of the eighteenth and nineteenth centuries in Britain. In some senses that industrial revolution was a textiles revolution.’

Similarly, Dickerson (1995, p. 22) observed that textile production

‘became one of the earliest large scale economic activities that led the industrialisation process centuries ago.’

The clothing manufacturing industry developed later than the primary textile industry within the pipeline. In Briscoe’s (1971, p. 8) words, ‘the . . . cotton industry was the spearhead of the industrial revolution by which the . . . factory system was established’ in the eighteenth century while the clothing industry’s change over to the factory system came later in the mid-nineteenth century, as has been observed above.

Unfortunately (from the point of view of the evolution and eventual decline of the UK industry) the same process of industrialisation was followed by many other countries. In Dickerson’s (1995, p. 40) words, ‘many additional countries imitated England . . . in using the textile sector as the first industry through which to pursue economic development’.

The reasons underlying this sequential process are well known: the industries in the textile pipeline are relatively simple technologically and they are relatively labour intensive (especially clothing production) and do not require vast injections of capital at initial stages. In Singleton’s (1997, p. 31) words, the textiles industry ‘is usually the first industry to become developed because it requires only modest amounts of skill and capital.’

There is, therefore, as Briscoe (1971, p. 2) says: ‘a close association between industrialisation and the growth of the textile industry’.

The textile and apparel industries are, therefore, extremely attractive to developing countries seeking to industrialise. In addition, the textile-apparel pipeline has always been characterised by a strong element of international activity. Dicken (1998, p. 233) comments that these industries ‘were perhaps the first manufacturing industries to take on a global dimension. They are the most geographically dispersed of all industries.’ The fact that apparel production, particularly at the sewing stage, remains a labour intensive operation has been in large part responsible for the structural decline of the sector in most advanced countries.

Taplin (1996, p. 2) in his major review of the reaction of developed countries to competition from low wage regions observes that:

‘clothing manufacture in the high wage economies is often regarded as a ‘sunset’ industry undergoing rapid restructuring . . . leaving garment production to the newly industrialised low wage countries as part of an international division of labour.’

These issues will be considered in more detail in Chapter 3. At this point it is sufficient to note that apparel production has declined significantly in most developed countries. According to Briscoe (1971, p. 1) the peak of UK-based textile production was achieved in early 1913 with output falling by 27% by the early 1960s. The apparel manufacturing industry developed later as a factory-based industry in the UK, being associated essentially with the widespread introduction of Singer sewing machines from about 1850.

Data is harder to obtain for apparel production but the same author concludes that employment in the UK apparel sector fell from 580 900 in 1923 to 390 000 in 1969. Godley (1996, p. 12) concluded that the gross output of the sector rose from £135 million to £198 million between 1907 and 1955 and that 'the emergence of mass production in the clothing industry was a phenomenon of the 1880s and 1890s rather than the 1930s and 1940s'. A number of indicators of the importance of textiles and apparel sectors over time have been summarised earlier in Fig. 1.2.

The role of the apparel industry as a major sector in the UK industry is, therefore, both historical rather than modern and somewhat less significant than that of textiles. Godley's (1996, p. 15) conclusion that the industry's 'importance to the economy was slowly declining [by 1951]' have been noted above. This decline essentially predates the emergence of an extensive and large scale import problem which has resulted in an accelerated decline in both output and employment since the 1970s. The UK became a net importer of apparel in 1960. It will be argued below (in Chapter 2) that the mid-1990s in effect represents a *second* watershed in the development of the industry in the UK. The first such period was in the 1970s and the early 1980s when, according to Winterton (1996, p. 25) import penetration 'was perceived as a major problem'.

(ii) The current situation

Table 1.11 summarises the relative importance of the sector in the UK in 1996. It can be seen that the industry accounts for less than 4% of all manufacturing employment (which is itself as will be seen below a shrinking sector) and under 2% of the output. It is also responsible for some 2% of UK exports. Somewhat unexpectedly this figure equates to that achieved in 1830 when, according to Briscoe (1971, p. 77) clothing provided 2.0% of all UK exports in value terms – this equality may, in fact, be more coincidental than meaningful as the early figure predates the emergence of factory-based clothing production. The long term trend in UK apparel exports is shown in Table 1.12.

At this point it will be advisable to recognise that the observed fluctuations in the size and importance of any manufacturing industry in the UK have to be assessed within the context of changes which were taking place in the UK

Table 1.11 The relative importance of the UK apparel manufacturing industry within the UK economy.

	Percentage of all manufacturing					Percentage share of UK exports
	Employment	NO	GO	GVA	Capital investment	
Clothing (Division 18)	3.8	1.7	1.4	1.8	0.7	1.9
Motor vehicles and trailers (Division 34)	5.8	6.6	8.3	6.8	10.9	8.7
Chemicals (Division 24)	6.3	11.4	10.3	11.0	15.5	12.8
Food and beverages (Division 15)	11.5	13.3	15.0	12.5	12.8	5.6
Pharmaceuticals (SIC 24.2)	1.5	3.1	2.2	3.0	3.5	2.9

Source: Office for National Statistics, PA1002, Manufacturing (Summary Volume).

Table 1.12 UK apparel (including footwear) exports (£ millions).

Year	£ millions (current prices)	At 1980 prices ¹
1951	62.8	275.5
1959	45.8	159.6
1961	46.2	156.1
1964	58.7	188.1
1968	110.7	327.5
1970	157.3	425.1
1975	319.2	512.4
1980	937.9	937.9
1985	1,342.0	—
1987	1,628.0	1,275.0
1990	1,975.0	—
1991	2,238.0	1,670.0
1994	3,218.0	2,366.0
1997	3,900.0	—

Source: *Annual Abstract of Statistics* (various issues).

Note: In current price terms exports took off in the mid-1970s and then expanded rapidly again in the 1990s. In real (1980) price terms the pattern is not altered but the scale of the change (1975–1985) is reduced from an increase of a factor of 4 to one of 2.6.

economy as a whole. Three such changes stand out. First, the relative decline in the importance of the *entire* manufacturing sector has to be recognised. Mathias (1969, p. 223) produces data which demonstrates that the peak year for manufacturing as a sector in the UK economy occurred in 1861 at 41%. By 1907 the share of activity represented by manufacturing was down to 37%.

In terms of the UK's relations with the rest of the world the relative contribution of the manufacturing sector and other sectors is also illuminating. The current account was roughly in balance in the late 1990s. Trade in manufactured goods comprises the largest element of the current account and has been in deficit since 1983. Income from investment, by contrast, has been in surplus since 1946 while the service sector has had a positive balance since 1966. In 1998, the balance on trade in goods was a negative £20 865 millions, while that on services was a positive £12 253 millions (UK Balance of Payments, *Pink Book*, ONS, 1999b).

In 1996, of the just under 23 million people economically active in the UK (*Labour Market Trends*, 1999) only 17% were employed in manufacturing. In 1997 (*Economic Trends*, 1999) the sector produced only 20% of the UK's Gross Value Added (see Table 1.13). Moore (1999, p. 23) noted that employment in 'manufacturing began to fall in 1966 at an accelerating rate ... [and that it] declined precipitously over the three years 1979–82 when a fifth of manufacturing jobs disappeared.'

Table 1.13 Jobs by industry 1999.

	Workforce jobs (thousands)	% change over previous year
<i>Agriculture/fishing</i>	526	– 5.2
<i>Energy/water</i>	233	– 0.6
<i>Manufacturing</i>	4,317	– 4.1
<i>Construction</i>	1,805	0.1
<i>Services of which:</i>	20,806	1.5
Distribution, hotels, restaurants	6,106	0.5
Transport/communications	1,661	4.7
Finance/business services	5,093	3.0
Public administration/education/health	6,398	0.9
Other services	1,548	– 0.3
<i>All jobs</i>	27,677	0.3

Source: Office for National Statistics (1999) Britain 2000. HMSO, London).

Table 1.14 reflects research Rowthorn (1987) who, when writing about the de-industrialisation of Britain, pointed out that not only did the manufacturing sector lose 2.8 million jobs in the UK between 1966 and 1984, but that the percentage decline in the sector in the UK between 1950 and 1981 was much higher than in most other developed countries. His conclusion was (p. 248) that the UK's postwar decline in manufacturing employment 'has been an example of "negative de-industrialisation" (i.e. due to poor performance rather than inevitable structural change) compounded by the effect of changes in trade specialisation' but that, in the final analysis:

Table 1.14 Changes in employment by sector 1959–1981 (%).

<i>Agriculture</i>	– 50.3
<i>Manufacturing</i>	– 25.0
<i>Private services</i> of which	+ 22.9
Insurance/banking	+ 107.4
Public services	+ 60.0

Source: Rowthorn, R.E. & Wells, J.R., *De-industrialisation and Foreign Trade*, Cambridge University Press, p. 13.

‘a large reduction in manufacturing employment was inevitable in postwar Britain, since the country was already on the verge of economic maturity in the 1950s. Manufacturing employment was bound to decline over the coming decades, no matter how bad or good the performance of British industry.’

Secondly, over the period 1950 to 1980 the UK’s relative position in the world league table of manufacturing economies slumped drastically. A large number of factors have been held responsible for this decline, e.g. poor industrial relations; a failure of the banking system to support the manufacturing sector; the inadequacies of the education system and a cultural bias against manufacturing as a career; and government failure to support the sector. Owen (1999) in the latest review of the decline of the UK as a world power points out that the UK share of world exports of manufactured products fell from 24.6% in 1950 to just 9.1% in 1973. However, his conclusion was that none of the conventional explanations were the central cause of this collapse. Owen (1999, p. 460) isolates the two primary causes of the UK’s failure to compete effectively as being the decision ‘to opt out of European integration in the 1950’s’ and the devotion of ‘insufficient priority to competition as the main driver of higher productivity’.

Finally, as Eltis (1978, p. 11) pointed out, there was in the UK between 1961 and 1975 a substantial collapse in the so-called ‘market’ sector of the UK economy in that ‘employment outside industry increased by over 40% relative to employment in industry ... and that this increase was most rapid in the public sector.’

The apparel manufacture sector falls, of course, within the ‘market’ sector of the economy. It is important, therefore, to be realistic in assessing the role of the sector and to recognise that even in historical terms the apparel manufacturing cell of the textile pipeline never was (other than in employment terms) a particularly major contributor to the UK economy. That role belonged – at least until just prior to the First World War – to the primary textiles element of the pipeline. As Briscoe (1971, p. 77) points out, in 1830 primary textiles

accounted for some 67% of total UK exports and, in 1913, just over 30%. The UK clothing industry never was the dominant element in the pipeline other than in employment terms. It could well be that the tendency to use the word ‘textiles’ to encompass all the products in the pipeline has produced not only a somewhat distorted view of the historical importance of the apparel sector, but also of the timing and extent of its decline. The major element whose spectacular collapse after 1913 has been taken as indicative of the demise of the UK textile sector as a whole was cotton textiles.

Many explanations have been advanced for the decline of the primary textile sector in the UK. There is, in fact, a relatively close correlation between the list of factors held to have been responsible for the textile sector and those responsible for the decline (in world terms) of the UK manufacturing sector as a whole – see Fig. 1.4 for a summary. In the case of the primary textile sector most commentators have isolated two factors. First, there was an over-concentration on low quality goods and on one export market (India). Morrison (1996, p. 249) emphasises that increasingly in the late nineteenth century ‘British exports were directed to less developed economies with lower consumer incomes and a predominant demand for coarse counts (low quality)’ while Dupree (1996, p. 270) points out that in 1913 45% of UK cotton exports went to India and that, additionally,

Textiles and clothing	UK manufacturing sector
Inevitability of rapid industrialisation in other countries due to the labour intensive nature of the sector and its role in the industrialisation process.	Inevitability of the production cycle in countries at varying stages of development.
	Poor productivity growth relative to other countries.
Lack of investment in new technology and in training.	Lack of investment; lack of support from the financial institutions.
Poor industrial relations.	Poor industrial relations.
Entrepreneurial failure; complacency; poor strategic choices made.	Short-sighted and inadequate management.
Too great a concentration on the wrong markets and on too low quality products.	Loss of captive markets and complacency.
Lack of protection from ‘unfair’ import competition.	Lack of government support.
Lack of co-ordination in the supply chain; too great a reliance on the large retailers.	Failure of the educational system both in terms of general standards and in terms of a bias against manufacturing.

Fig. 1.4 The reasons for the decline of the UK industry.

‘the Lancashire export trade in cotton piece goods was dependent in general on the bulk production of relatively low quality cloth – just the kind of product that was most exposed to competition from newly developing local industries in its overseas markets’.

Owen (1999) in his examination of the textile sector also places some emphasis on the incorrect selection of markets, especially India, but contends that the main two pillars of the industry’s response to low cost competition turned out to be mistaken, *viz.* reliance upon protection and the attempt to generate scale economies through mergers in the 1960s. This latter policy was according to Owen (1999, p. 76):

‘based on a misreading of the market . . . Instead of a growing demand for standard, mass produced fabrics, European consumers wanted more differentiated, more colourful and more stylish fabrics. This called for flexibility . . . and quick response to changing fashions’.

Although Owen’s analysis makes little reference to apparel manufacturing (other than as a consequence of demergers in the textile conglomerates) the same conclusions can be applied to apparel manufacture in that (Owen, 1999, p. 87) the dominance of the multiple retailers, especially Marks & Spencer, ‘made it difficult for manufacturers to establish their own brands’ and ‘tended to reinforce the industry’s attachment to long runs of relatively undifferentiated products’. Both of Owen’s conclusions are supported by Moore (1999, p. 372) who also argues that de-industrialisation in the UK:

‘was accelerated by Britain’s entry to the EC . . . because imports from the other EC Member States ousted her home produced goods from her own market . . . so far from participating in a rapidly growing market, her rate of growth fell’

and (Moore, 1999, p. 266) that:

‘the result of the domination of the market by large retailers meant a concentration on long runs of standardised products . . . in direct competition with imports from low wage countries’.

Second, most experts stress the role of what might be called the development cycle hypothesis – that most nations go through a cycle in which first agriculture and then manufacturing decline as the tertiary service sector expands. This view is, for example, reflected in the words of Singleton (1991, p. 231) when he wrote that Lancashire:

‘dominated the world market for cotton textiles in Victorian times, largely as a result of its early industrialisation. But Britain possessed no unique advantages as a cotton textile producer. It was *inevitable* (present author’s

emphasis) that production facilities would be established overseas as the countries began to develop a manufacturing base’

or in Briscoe’s words (1971, p. 3):

‘it will be argued that the growth and decline of the British textile industry is a reflection of the industrial development, first of Britain and then of overseas countries’.

In a similar vein Morrison (1996, p. 264) argues that Lancashire’s problem in 1914:

‘was in many ways over-development rather than under-development. There was no realistic way in which the cotton industry could be maintained at the size it had achieved’.

The clothing industry, in contrast, continued to expand for some 40 to 50 years after the decline in the primary textiles sector set in. In Levitt’s words (1996, p. 183) ‘whilst the cotton industry steadily declined, clothing production expanded until the 1960s’. This is demonstrated by the relative size (in employment terms) of the two sectors computed in Table 1.15.

Table 1.15 The relative size of the apparel and textile sectors 1923–1978 (employment in thousands).

Year	A Textiles	B Apparel	B as a percentage of A
1923	1,312	580	44
1932	1,271	605	48
1947	820	551	67
1958	952	648	68
1965	829	563	68
1971	681	510	75
1978	490	378	77

Source: Mitchell, B.R. (1988), *British Historical Statistics*, Cambridge University Press, Cambridge.

As has been seen above (Table 1.10) imports of clothing into the UK did not really take off until the mid to late 1950s, at which point output was (Table 1.9) more or less constant. There is, somewhat unfortunately, a gap in the literature between the period up to the early 1950s which is well covered by Godley (1996) and the post 1980s, which is covered by Taplin (1996 and 1997). However, little seems to have been written about the experiences of the apparel manufacturing sector in the 1960s and early 1970s, other than as an element of changes made by the major textile conglomerates. It is generally accepted in the literature that the main cause of

the industry's problems (that is decline) was competition from imports. For example, Winterton (1996, p. 34) wrote that:

'import penetration . . . has clearly had an enormous impact on the clothing industry in the UK. The global pressure has created successive crises which have been reflected in the long-run trends in output and employment'

adding conclusively that:

'the crisis in the UK clothing industry can be directly attributed to the increase in imports'.

The same author does give net output data for the apparel sector for the period 1954 to 1991 which is produced in aggregate form in Table 1.16. Winterton's (1996, p. 35) conclusion is that in terms of real output there was a 6 per cent fall between 1954–63; a substantial rise (45 per cent) between 1963–73; a fall in the 1970s followed by a large (34 per cent) rise between 1983 and 1987. It has to be pointed out that these figures are not totally compatible with the official series of output figures for 1978–1998 supplied to the present author by

Table 1.16 Net output of UK apparel sector 1954–1991.

Year	Output (£000)
1954	211,383
1958	233,155
1963	282,790
1973	458,702
1978	1,218,200
1983	1,560,000
1987	2,191,800
1988	1,430,600
1989	2,520,500
1990	2,622,600
1991	2,423,000

Source: Derived from Winterton (1996) in Taplin, I.M. (ed), 1996 *Restructuring in A Labour Intensive Industry*, Aldershot, Avebury.

Notes: Winterton used a 1973 price deflator to obtain the real value outlined in the text. The application of a 1980 price base produces real values of £768 665 million in 1954 rising steadily up to £990 717 million in 1973. The late 1970s and early 1980s saw a fairly steady level of output followed by a substantial rise to £1 939 646 million in 1987 and a small decline to £1 180 209 million in 1991.

the ONS and reproduced as Table 2.1 in Chapter 2. In this series the increase between 1983 and 1987 was only 12 points.

In terms of employment Winterton (1996, p. 35) identifies the start of the 1970s as: ‘a watershed which was followed by a steady decline. The fastest rate of decline occurred between 1978 and 1983, when employment fell by 31%.’

In this case the official series (see later, Table 2.1) confirms Winterton’s conclusion. As has been suggested above it is one of the main theses of the present text that the late 1990s represent a second watershed – but that in this case it is reflected in a decline of *both* output and employment. This theme will be developed further in Chapter 2.

Table 1.11 clarified earlier the position of the apparel industry relative to a selected number of other sectors, all of which might be regarded by an impartial observer as being significantly more important than apparel manufacture as contributors to the overall economic well being of the nation. These facts are not stressed in order to minimise the problems caused to the industry in the UK by the rise in imports and reduction in employment which has occurred over the last twenty years (see later, Tables 2.1 and 2.5) but simply to place subsequent discussion of strategic responses which might be adopted into a realistic context. This completes the review of the evolution and decline of the textile-apparel pipeline in the UK economy. However, before proceeding to conduct (in Chapter 2) an examination of the structure of the modern apparel industry in the UK, it will be useful to review the theoretical basis upon which that examination will be carried out.

E. Examining an industry – a theoretical base

The aim of this book is to describe the current state of the UK apparel manufacturing sector; to identify its role in the textile-apparel supply chain; to explore the forces which have brought the industry to its present position and, finally, to explore and examine potential future strategies which will possibly condition the shape and size of the industry in the next decade. The development or evolution of an industry over time can be described statistically in terms of fluctuations in output and employment. Its performance can be described in terms of trends in prices, consumption, investment and trade. The shape of the industry can be analysed in terms of trends of various measures of specialisation, concentration and the size distribution of firms, for example. The danger of simply amassing statistics is that the observer will not be able to make any sense of an unstructured mass of data. The usual solution to this problem is to adopt some form of model within which facts can be assembled.

A number of competing models or frameworks exist which could be utilised

in this task. First, there is the standard classical supply and demand model derived from traditional theoretical micro-economics. The role of this model is extremely controversial. The model is based upon a number of simplifying assumptions which cause its critics to describe it as being irrelevant in the real world. The supporters of the model argue that the only way to judge the validity of a model is to test its predictions – and they claim that the model can be shown to be correct in its predictions in thousands of instances. The model, in brief, forecasts price movements which follow from changes in the supply and demand for a product at an *aggregated* level, e.g. if the cotton crop fails supply falls and cotton prices rise. The role of this paradigm is controversial and is, in part, tied in with the equally controversial role of positivism in the natural sciences (see Section F). Supporters of the model argue that the task of a positive statement is to make correct predictions about the consequences of changes in circumstances while critics of the model point to the lack of realism in its assumptions. The model can be shown (Jones, 1976) to ‘work’ at a certain level of aggregation and will be employed in the present text to analyse such issues as the importance of tax on children’s clothes and the impact of the legal minimum wage upon employment levels.

Second, and perhaps more promisingly, there is the industrial organisation (or industrial economics) model usually referred to as the Structure-Conduct-Performance model (SCP). This has a number of attractions not the least being that it can be used in both an analytical and descriptive manner. This model has been developed within that branch of economics known as industrial economics or industrial organisation. According to Hay (1991, p. 3) ‘the delineation of a specific area of economics under the title “industrial economics” is a phenomenon only of the last fifty years’. A review of the history of industrial economics is clearly beyond the scope of the present text and is covered thoroughly in Martin (1993); Hay (1991); Stead (1996) and Scherer (1990).

The modern evolution of industrial economics contains two threads – the provision of a framework within which to collect data and the development and refining of theoretical models which offer an improvement on the traditional microeconomic theory of the firm. In the words of Hay (1991, p. 17) the subject:

‘is concerned not simply within adding descriptive material, or with elaborating largely deductive or prior theories, but with developing theories which recognise and incorporate the complexities of the real world ...’

Much work in industrial economics has been concerned with statistical testing of associations between elements of industrial structure – notably the degree of concentration – and aspects of performance such as profits. Martin (1993) derides the adherents of this approach as ‘regression runners’. In practice the results of the regression-based research have tended to be somewhat inconclusive, as will be seen in Chapter 2. In Hay’s words (1991, p. 18) there remain

very considerable uncertainties and ‘relatively few concrete conclusions’. In addition, much of the work has, as has been stated, been concerned with the impact of high degrees of seller concentration upon such issues as prices, profit margins and research activity. Much of this work is not immediately relevant to the apparel sector in which concentration levels remain very low. Nevertheless, as Scherer (1990, p. 6) concludes, there is a second use for the SCP model in that ‘the paradigm is useful as a kind of hat rack for organising relevant facts’. It is from this standpoint that it is, therefore, useful to begin with the standard diagrammatic exposition of the model as is shown in Fig. 1.5. This framework will provide a useful starting point for the subsequent analysis of industrial structure in Chapter 2.

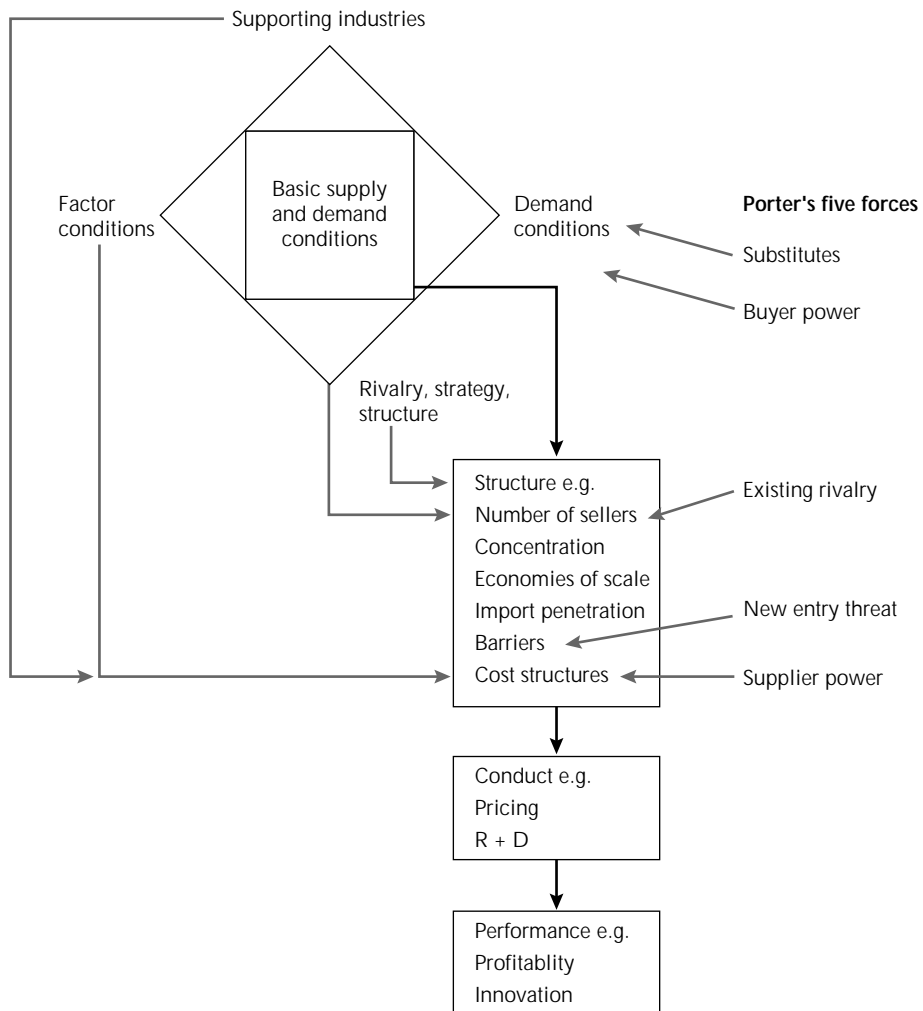


Fig. 1.5 The Basic Structure-Conduct-Performance Model.

Two problems remain, namely that the role of international trade does not feature prominently in the model, and that, at least superficially, the model does not allow much role to the individual firm. For example, Scherer (1990, p. 1) states that the model 'has little to say directly about how one organises and directs a particular enterprise'. At first sight this could be seen as implying that the firm has no important role in the model. This would be a defect in examining potential strategies for the future. However, such a pessimistic view is not justified because while the industrial economics model may not be of use in analysing any *specific* firm, it is clear that the role of the firm as such has emerged in an enhanced position from the most recent research. Hay (1991, p. 261), for example, concludes his exhaustive review of the field with the statement that the conduct element in the SCP model has been driven into the foreground because it seems to play a greater than anticipated role in setting entry conditions and in uncovering the correct concentration to profit relationship. Therefore, the firm emerges as of much greater importance than before. Firms can no longer be viewed as merely units in the structure of an industry, passively accepting the constraints on performance which that structure determines. Rather they emerge as active players.

The second problem is more real – the relative lack of attention paid to international events in the model. It is significant that, in drawing a conclusion on the relationship between structure and profits, Hay (1991, p. 60) comments that 'a number of additional variables ... and probably international trade are all important variables'. Martin (1993, p. 14) in his dauntingly rigorous review of the subject comments that 'the intellectual apparatus of international economics is the jewel in the crown of economic theory' and does review the interaction between industrial and international economics in the sense that trade theories have borrowed from the former concepts of imperfect competition. However, even then the implications for the standard model of industrial economics (as described in Fig. 1.5) of introducing the international dimension are not explored. Stead (1996) incorporates a chapter on international trade in his survey of industrial economics, but is mainly concerned to explore explanations of the so-called intra-trade phenomenon (see Chapter 3). In the apparel industry (in which trade flows are a major influence on events) this is a significant weakness of the SCP model. For example, Singleton (1997, p. 1) shows that trade in textiles and clothing is conducted on a vast scale and accounted for nearly 10% of world manufactured exports in 1993.

One reaction would be to simply insert trade flows into the top box of Fig. 1.5, for example, as inputs into supply; or into the second box, in the case of trade barriers, as elements of barriers to entry. However, this does not give sufficient weight to trade influences in the industry. Therefore, another reaction might be to identify an alternative model which does give the required

weight to the international dimension. Such a model can be found in the work of Porter (1998). This is usually called the ‘diamond framework’ and suggests that four factors determine the success of particular locations in promoting successful companies – demand conditions, factor conditions, the presence of related industries and rivalry between existing industries.

The Porter model starts with an analysis of industrial structure as outlined in the Five Forces Model which is represented by the right hand component of Fig. 1.5 which makes the links between the five forces and the standard industrial economics framework clear. Porter (1998, p.35) argues that the ‘strength of the five competitive forces is a function of industry *structure*’ (author’s emphasis) and that these ‘five competitive forces determine industry profitability’. The analysis is, therefore, rooted in the structural concept and there are clear points of contact between the two models as are shown in Figure 1.5 by the arrows connecting the two models.

In the Porter framework the Five Forces Model is utilised to explain the average level of profitability in an industry or sector. It indicates the ability of a sector to capture profits in the supply chain. In Singleton’s words (1997, p. 3): ‘the overall condition of the industry affects the prospects of individual firms’. In essence the model indicates the potential of a sector to capture a share of the profit generated within a pipeline. This is of particular interest to the present inquiry and will feature prominently in Chapter 3. The links between the Five Forces Model and the traditional SCP model are shown in Fig. 1.5. In Porter’s view (1998, p. 34) the *industry structure* in which the firm competes is one of the major factors underlying competitive strategy.

The success of companies is, however, in part dependent on the selection of the correct strategy – within the confines set by the Five Forces Model. This is explained by the concept of Generic Strategies which identifies the choice between low use or product differentiation and broad or narrow market focus strategies as being crucial for success. It has already been noted that most commentators accept that one reason for the collapse of the cotton textile sector was that the UK industry concentrated for too long on low price/quality products.

The Five Forces Model is, therefore, essentially a structural concept and not in any real conflict with the SCP paradigm as such. It is, therefore, included on the right hand side of Fig. 1.5. However, it is in the final step in the construction of the Porter model that the previous absence of an international dimension is overcome. Porter argues (1998, p. 53) that: ‘these principles of competitive strategy apply whether a firm is competing domestically or internationally’.

The vital international dimension is introduced via the so-called Diamond Framework which incorporates factor conditions, demand conditions, the strength of supporting industries and firm structure and rivalry. A basic issue is the role of place (1998, p. 1):

‘Why does a nation become the home base for successful international competitors ... or ... why are firms based in particular nations able to create and sustain competitive advantage?’

The four broad attributes of the Diamond noted above (1998, p. 71) ‘shape the environment in which local firms compete that promote or impede the creation of competitive advantage’.

The Diamond Framework overlaps both the basic conditions element of the SCP model and a number of the structural conditions traditionally included in that model as is shown in Fig. 1.5. The home base is seen as (1998, p. 106) ‘the location of many of the most productive jobs, the core technology and the most advanced skills ... while the ownership of firms is often concentrated at the home base, the nationality of shareholders is secondary’.

However, it is vital that companies have a wide view of locational possibilities for different stages of the production processes so that they can, as required, negate any deficiencies of the Diamond Framework in their home base and reinforce the Diamond Framework through the use of other locations in which the advantages are greater.

The link between the Five Forces Model and the Diamond Framework is to be found, first, in a number of shared concepts such as domestic rivalry which appears both in the Five Forces Model and in the Diamond under the heading of Firm Strategy and Rivalry (Porter, 1998, p. 120), but, secondly, and more importantly in the concept of competitive advantage in that the basis structure (as expressed by the Five Forces Model) sets limits to the emergence of competitiveness in an industry. However competitive advantage can also be created by international (as well as domestic) activity and it is this role of the nation in the evolution of international competitive advantage which is captured by the Diamond Framework.

This is not to say that there are no tensions between the two models, e.g. in the Five Forces Model fierce domestic rivalry erodes profits whereas in the Diamond Framework vigorous domestic rivalry creates competitive advantage. It must also be acknowledged that the Porter models have not been accepted uncritically. The concept of generic strategy has been criticised by, for example, Hines (1999) and Hendry (1990) on the grounds that there is very little empirical support for the concept; there are problems of defining the industry boundaries within which firms are competing and that differentiation itself is a difficult concept to define. The distinction between cost and differentiation based strategies is not always easy to maintain in practice.

Nevertheless, the present author believes that the model expressed in Fig. 1.5 will be the best framework within which an analysis of the UK apparel sector in the late 1990s can be conducted.

The SCP model will, accordingly, be utilised (in Chapter 2) as a *descriptive* device. In Singleton's words (1997, p. 3):

'the diamond is a *taxonomy* rather than a theory. It assists the investigator to arrange the evidence . . . The inclusiveness of the Diamond Framework does, however, mitigate against the adoption of iconoclastic explanations'.

This approach, therefore, accords with the decision to apply the traditional SCP model also in a large descriptive role.

The Porter model will be adopted in order to introduce the vital international dimension. There is, it must be admitted, an element of pragmatism involved in reaching these decisions in that at least two major studies of the textile apparel supply chain have adopted the Porter model (Singleton (1997) and Koshy (1997)), while Owen (1999) adopts a Porter-like stance in his analysis of UK industrial performance. Finally, and entirely coincidentally, it was reported at the time of writing that the UK government was taking advice from Porter on which industrial 'clusters' it should support in the future (Jones, 2001).

F. Research philosophies

The examination of the UK apparel manufacturing sector which follows in subsequent chapters must, by definition, call upon the results of much previous research into various aspects of the industry's performance. The sector has been studied, over the years, from a variety of perspectives reflecting an equally wide range of research philosophies. The term 'research philosophy' refers to the general research methodology adopted in a piece of research.

The general approach adopted, in so far as it is possible, in the present text will be the so-called 'positivist' or 'logical empiricist' approach. In brief, the positivist approach attempts to utilise quantitative rather than qualitative data; tries to carry out controlled experiments or statistical tests; prefers an objective to a subjective view of events and chooses to test ideas using numerical research techniques. There is, as would be anticipated, a close link between positivism and quantitative analysis. In fact the two words are often used by commentators as if they were interchangeable – Bryman (1998, p. 40) for example, states that positivism 'reveals itself in quantitative research in particular in the emphasis on facts which are the products of observation'.

The positivist model is also closely aligned with the notion of causality, i.e. that certain events are caused by changes in various factors. This approach is widely used in industrial economics. An extreme view (but one which is widely held) is that, as Keat (1975, p. 7) expresses it: 'There is only one logic of science to which any intellectual activity aspiring to the title of "a science" must

conform – that is positivism’. Adherents of this point of view argue that correct ideas can be defined as those which can be shown to have empirically refutable consequences.

In general terms this is the approach that will be adopted in the present text. However, in the context of the apparel industry it is not possible, or maybe even desirable, to adopt a rigidly extreme position regarding the admissibility of other research paradigms. Apparel has a social context and dimension. Sociological research does tend to lean more heavily on alternative approaches such as phenomenology and ethnography. This is a somewhat controversial area of discussion as it can perfectly legitimately be argued that (Hammersley, 1995, p. 10) people ‘do behave differently according to context’. Accordingly, alternative research modes such as the aforementioned approaches of ethnography and phenomenology might be appropriate. This conflict between competing research philosophies becomes most apparent in the area of fashion theory – see, for example, Chapter 10.

Finally, it has to be acknowledged that because, in industrial economics, controlled experiment is hardly ever possible, great reliance is thrown upon statistical investigations and interpretations. There is no concealing the fact that such tests are fraught with difficulties as, for example, statistical definitions change over time and data comparability becomes controversial. The current UK industrial statistical framework is described in Appendix A in which the PRODCOM system and the current Standard Industrial Classification are described.

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Chapter 2

The Apparel Industry in the UK – Current Size and Structure

A. The current size of the sector

The experience of the period 1978–98 is summarised in Table 2.1 in terms of output and employment. Although this table is presented as an index so as to highlight trends, it can be noted that the official number of employees in the sector in 1998 was 118 547 as compared to 294 157 in 1978, and that by November 2001 it had fallen to 95 000. A full set of figures, together with an explanation of their sources is given in Appendix B.

It can be seen from Table 2.1 that it was possible to argue, for the period 1978–1988 at least, that while employment was falling this did not necessarily represent the demise of apparel production in the UK because output was not on a consistent downward trend. In this respect the UK apparel industry seemed to have been adopting different strategies to many of its continental neighbours such as France, Germany and the Netherlands. Scheffer (1992, p.193), for example, argues that it is possible to identify quite different approaches to the same problem in these countries, with Germany concentrating on offshore production while the UK stuck somewhat rigidly to producing long runs for major retailers.

However, Table 2.1 seems to reveal a new scenario post-1994 in that both employment and output seem to be in parallel decline. This is more clearly seen in Fig. 2.1. It will, therefore, be one of the main themes of this text that the UK has, in the mid-1990s, entered a new phase in the evolution of apparel manufacturing – one in which the UK has caught up with continental neighbours (such as France, Germany and the Netherlands) in the development of offshore production and in which, as a result, the gap between the UK apparel industry and the apparel industry in the UK will become progressively wider. In other words, it appears increasingly probable that the mid-1990s was emerging as a second watershed in the evolution of the sector. In contrast to the period between the early 1970s and the late 1980s when there was (Winterton, 1996, p.27) a ‘profound operational restructuring which has involved both a

Table 2.1 Indices of output and employment, UK apparel sector 1978–1998 (1978 = 100).

Year	Output	Employment
1978	100	100
1979	101.8	99.6
1980	91.7	87.7
1981	85.0	77.7
1982	85.8	73.7
1983	88.6	72.5
1984	93.9	73.0
1985	100.5	74.8
1986	100.7	73.3
1987	101.7	73.7
1988	100.1	73.6
1989	96.7	70.4
1990	97.5	63.6
1991	88.1	53.3
1992	90.4	50.0
1993	90.2	52.6
1994	94.3	50.7
1995	91.8	49.1
1996	93.8	47.8
1997	85.1	45.6
1998	76.1	42.1
2000	NP	35.8
2001	NP	32.3

Source: Appendix B.

Notes: (1) NP = not provided.

- (2) In the data provided to the author by the relevant Government Department the employment series was in absolute numbers while the output series was in the form of an index number with 1995 as a base. In this table the employment series has been converted to an index number with a 1978 base and the output series has been re-based to 1978 by the author. The original data supplied is given in Appendix B. The author wishes to acknowledge the work of Nicola Robinson who collected this data in her role as Research Assistant funded by Hollings Faculty, MMU.

dramatic contraction (in employment) and an increase in value added per worker', a new scenario has developed in which both employment and output have moved into parallel decline as the rush offshore gathers pace.

It seems likely that the somewhat pessimistic view expressed by Winterton (1997, p. 27) while startling enough in itself almost certainly does not represent the end of the story:

'The trend of employment in UK clothing is particularly striking. The overall trend is downwards, but for a temporary upturn after 1983 ...



Fig. 2.1 Trends in output and employment.

Between 1973 and 1993 employment declined by 53%. The latest figures suggest that the decline in clothing employment has accelerated, with the rate of attrition increasing after 1988. Between 1973 and 1988 employment fell by 34% in fifteen years. However, in 1995, there were 142 708 employees left in UK clothing manufacture, representing a decline since 1988 of 39% in half as many years.’

The latest employment figure for 2001 (see Appendix B) is, as has been noted, 95 000. This compares with a peak figure (Godley, 1996) of 796 300 in 1911.

Table 2.2 shows absolute size of the apparel industry (in terms of enterprises, output, employment and capital expenditure) while its relative importance is given in Table 2.3 and 2.4. Apparel manufacture, in 1996, provided 3.8% of all jobs in the UK manufacturing sector. This compares with the Food and Beverages Industry at 11.5% and the Motor Vehicle Industry at 5.8%. Clearly the ‘importance’ of the entire textile pipeline as an employer (as shown in Fig.

Table 2.2 The size of the apparel manufacturing industry in the UK.

	1993	1994	1995	1996
Enterprises (number)	8,208	8,658	8,672	8,377
Total sales (£m)	5,388.4	5,729.6	6,286.5	6,160.3
Gross output (£m)	5,430.5	5,919.9	6,369.6	6,173.0
Net output (£m)	2,659.8	3,043.8	2,941.9	3,120.0
Net output per head (£s)	14,180	17,440	16,004	19,260
Gross value added (£m)	2,218.6	2,466.1	2,436.8	2,594.9
Gross value added per head (£s)	11,827	14,130	13,256	16,018
Employment (thousands)	187.6	174.5	183.8	162.0
Wages (£m)	1,423.1	1,445.4	1,475.1	1,451.1
Wages per head (£s)	7,587	8,282	8,024	9,086
Capital expenditure (£m)	79.3	106.6	115.3	130.3

Source: ONS (1996), *Manufacturing, Production & Construction Inquiries*, Vol 1 (1966), HMSO, London.

Table 2.3 The relative importance of apparel manufacturing in the UK (1996).

	Percentage employment	Percentage net output	Percentage gross output	Percentage GVA	Percentage exports	
					A	B
Apparel (Division 18)	3.8	1.7	1.4	1.8	2.2	1.9
Motor vehicles (Division 34)	5.8	6.6	8.3	6.8	10.3	8.7
Chemicals (Division 24)	6.3	11.4	10.3	11.0	15.1	12.8
Food and beverages (Division 15)	11.5	13.3	15.0	12.5	6.6	5.6
Pharmaceuticals (Division 24.4)	1.5	3.1	2.2	3.0	3.4	2.9

Source: ONS (1996), PA 1002 Manufacturing (1996); BM MA 20.

- Notes: (1) All tabulations are based on the percentage of the UK manufacturing total except B in the exports column which is the percentage of all trade.
(2) In the export column the percentage is for beverages only. Food excluding live animals amounted to 4.3% and 3.6% respectively.
(3) A = % of all manufacturing trade only.
(4) B = % of all trade.

1.1) was much greater. The manufacturing sector, it should be recalled, was responsible for only 17% of all employment in the UK in 1996. In terms of output, the apparel manufacturing sector, in 1996, contributed only 1.7% of all manufacturing (net) output – whereas the Motor Vehicles' share rises to 6.6% and that of Food and Beverages to 13.3%. The labour intensive nature of apparel production (which will be discussed more thoroughly below and in Chapter 4) is hinted at by the figures for capital investment in Table 2.4. The figure of £130.3m in 1996 (Table 2.2) represents only 0.7% of the total for all manufacturing. Capital expenditure per head in the apparel sector in 1996 amounted to approximately £804 against the average for the manufacturing

Table 2.4 Operating ratios (1996).

Measure	All manufacturing	Div 18 Clothing	Motor vehicles	Chemicals and chemical products	Food and beverages
GOPH (£)	104,040	38,107	221,684	170,687	136,043
NOPH (£)	42,616	19,260	64,976	77,531	49,496
GVAPH (£)	33,106	16,018	51,491	57,810	36,187
W % GVA	50	56	44	37	41
O Ratio E	2.0	4.7	2.7	1.0	3.6
WPH (£)	12,966	6,744	16,049	16,330	11,822
NCE & GVA	13	5	24	18	13
NCE per head	4,191	804	7,934	10,330	4,658

Sources: ONS (1996), PA 1002 Manufacturing Summary Vol (1996) Table 7 & BM MA 20.

Key: GO Gross output
 NO Net output
 PH Per head
 GVA Gross value added
 O Operatives
 E Total employment
 W Wages
 NCE Net capital expenditure

sector of £4191. In the Food, Motor Vehicles and Chemical sectors respectively, the figures were £4658, £7934 and £10 330 (Table 2.4).

The Census tables also reveal some of the other problems which underlay the performance of the sector in the UK. As can be seen in Table 2.4 the industry, by a wide range of accepted measures, does not appear in a good light, e.g. the average wage (in 1996) for operatives was 52% of the average; net output achieved (despite all the productivity increases achieved) was 45% of the average (and for example only 30% of that achieved in the motor vehicle industry); the ratio of operators to total employees is very high; wages as a percentage of value added are well above average. Many of these features are linked: the low level of output, the high ratio of operatives and the low level of investment all reflect the relative lack of technological sophistication in the sector.

This data is not provided in order to paint the industry in a poor light, nor to imply that, for example, the operatives do not work hard. The facts noted here help to explain why the industry has declined in the UK and make it quite clear how daunting a task is faced in endeavouring to survive within a UK base. Government support is, for example, linked to the perceived ‘importance’ of the sector – and yet by most measures the apparel manufacturing sector appears either to be somewhat insignificant or to be lagging behind other industries. The motor vehicle industry, for example, exported £14 981 811 000 of product from the UK in 1997 whereas the apparel sector exported £3 254 176 000. Exports per head were over six hundred times greater than in the apparel industry.

It is probable that figures like this weigh heavily with governments when they have to decide whether or not to support an industry – as was the case with the Rover/BMW plant in the Midlands in mid-1999. Additionally, despite the fact that the industry's wage level is low by UK standards (as can be seen above), it is relatively high by Asian standards. Therefore, the ability of the industry to make itself more attractive to employees is very severely restricted. The figures for capital investment reflect the labour intensive nature of apparel production – especially at the assembly stage. The cost structure of the sector is considered in greater detail in Section D below, but it can be noted at this point that the degree of labour intensity in the industry is one of, if not the, defining features of the sector without reference to which the recent experience of the industry cannot really be understood.

Although there is always a danger of confusing short term trends with significant long term breaks in a sequence of events, the argument being advanced is that apparel production, in the late 1990s, exhibited a significant failure to recover output post-1990 (itself a recession year) against a background of overall recovery in the UK economy – see Table 2.5 – and that this failure is indicative of a long term break with trends exhibited in the recent past. This conclusion would be supported by the following evidence: an examination of pronouncements in the trade press in the period from autumn 1998 through to autumn 1999 in which a number of major apparel manufacturers, often under pressure from retail customers, announced closures of capacity in the UK and an increase of offshore activity; that output has fallen by 13% since 1990; that employment has fallen by 25% since 1990 and by 8% since 1993; and that the rate of import penetration (see Chapter 5) has reached 66% and is on a rising trend.

If the experiences of the period 1993–95 to 1998, for example, were to be repeated in the period 1998–2003 (by which time the process of removing quotas on sensitive items will be well underway) then a not implausible scenario would see UK-based output in the apparel industry down another 15–20%;

Table 2.5 Index of production 1993–1998 (1995 = 100).

Year	All manufacturing	Clothing
1993	99	93
1994	104	97
1995	107	94
1996	108	96
1997	109	86
1998 (quarter 1)	109	87

Source: ONS (1998), *Sector Review: Clothing, Leather and Footwear Goods* (ONS).

employment down another 10% and import penetration rates rising to over 70%.

One would not have to be a subscriber to the view of economics as the dismal science to envisage a scenario in which a combination of cheap imports from the depressed Asian economies, a strong pound, the final removal of quotas, a weak UK market and a change to off-shore production superimposed upon an already severe decline experienced in the period 1993–8 all combined to produce an extremely difficult situation for UK based apparel manufacturers. At the very least it would be quite a different industry to that which existed ten to fifteen years ago. It might be objected that all industries can expect to face different circumstances as time moves on – the question is how severe are the differences and how well placed is the industry to deal with them. These are the sorts of issues to be examined in subsequent chapters.

As has been noted (from Table 2.1) employment has fallen more or less consistently year on year from 1978. As Winterton (1996, p. 35) observed:

‘employment in the clothing industry had declined to 42% of the 1954 level by 1991 ... and the plateau period at the start of the 1970s formed a watershed which was followed up by steady decline. The fastest rate of decline occurred between 1978–1983, when employment fell by 31%. After a slight upturn in the period 1987–88 the decline has continued’.

These trends are reflected in the right hand column of Table 2.1. The trend in output has followed a far less predictable path and has *not* been in a consistently downward direction. After a period of decline between 1954 and 1963 there was a 45% increase between 1963 and 1973 (Winterton, 1996, p. 35) and another substantial increase between 1983 and 1987. The link between output and employment is, clearly, productivity or output per head.

The issue of the trend in output per head (productivity) can be examined from two angles: (a) the trend in productivity within the industry itself; and (b) the trend in productivity relative to the average trend in all manufacturing.

The second issue can only be examined in the official statistics from the point of view of textiles, clothing, leather and footwear as one sector as against manufacturing as a whole and the results are given in Table 2.6. Unfortunately the series has been re-based four times over the period 1970–94.

In the late 1970s and early 1980s the UK apparel industry experienced a burst of productivity improvement which exceeded that achieved in UK manufacturing as a whole – see Table 2.6 in which sections B and C are of most interest in the present context. The periods 1978–81 and 1980–83 seem to have been particularly significant.

Previous commentators have identified the period 1954–1991 as one of significant productivity increase in the textile sector (Winterton, 1996, p. 35), singling out as especially significant the years 1963–73 and 1978–87. This latter

Table 2.6 Productivity in the UK apparel sector.

	All manufacturing	Textiles, leather and clothing
A 1975 = 100		
1970	89	84
1971	91	90
1972	96	93
1973	104	101
1974	103	97
1975	100	100
1976	105	105
1977	107	107
1978	108	110
1979	109	113
1980	105	105
1981	109	111
1982	115	113
B 1980 = 100		
1978	103.4	103.7
1979	104.1	105.5
1980	100.0	100.0
1981	103.5	106.5
1982	110.4	112.2
1983	119.8	121.2
1984	126.4	125.0
1985	130.6	128.4
1986	133.8	131.2
C 1985 = 100		
1980	76.6	77.9
1981	79.2	83.0
1982	84.5	87.4
1983	91.8	93.7
1984	97.0	97.4
1985	100.0	100.0
1986	103.5	104.4
1987	109.8	102.0
1988	116.2	102.9
1989	120.9	107.7
1990	122.8	109.7
1991	124.6	114.1
D 1990 = 100		
1986	84.6	91.9
1987	89.2	95.3
1988	94.2	95.3
1989	98.1	94.5
1990	100.0	100.0
1991	101.2	99.3
1992	105.8	101.2
1993	109.8	98.5
1994	115.1	97.8

Source: *Employment Gazette*, various issues.

period matches that identified in Table 2.6. In a later publication the same author (Winterton, 1997, p. 27) identified the periods between 1973 and 1993 as one in which productivity rose by 285% as opposed to an increase of only 61% in the previous decade. Irrespective of minor variations in time periods isolated it is clear that the industry experienced a surge of productivity growth from the late 1970s through the mid-1980s. This would conform with the findings of Harris (1997) that productivity growth in the UK regions between 1968 and 1991 was highest after 1979 and that the peripheral regions (in which much of the apparel industry is located) did better in the 1980s than in any other decade.

As can be seen from Table 2.7, however, in terms of the relative performance of the sector over the long period the textile sector, widely defined, performed only moderately well. Productivity actually fell between 1990 and 1994. This is confirmed by the data in section D of Table 2.6.

Table 2.7 Long run productivity trends (1975 = 100).

	All Manufacturing	Textiles, Clothing; Leather & Footwear
1970	89	84
1975	100	100
1980	105	105
1982	116	118
1984	132	131
1985	138	134
1990	168	142
1994	193	139

Source: Table 2.6 – author’s own calculations.

In terms of the apparel sector alone (as opposed to the textile sector widely defined) an alternative view of productivity might be obtained by combining the two series in Table 2.1. The result of this calculation is shown in Table 2.8 which tends to confirm that the late 1980s and early to mid-1990s were periods of rapid productivity growth. This series has the virtue of producing a figure for the apparel sector only. These were periods when total output was still stuck at 1978 levels. The fact that the greatest increases in productivity growth seemed to be occurring during periods of time when total output was *not* growing (or was even contracting) might be regarded as of some significance in that it could be argued that the recorded increases in output per head (productivity) owed less to any real improvement in technology and more to the fact that the relatively low (value) productivity functions were moving out of the UK leaving the relatively high value added jobs behind. Temple (1997) in his study of the competitiveness of the UK manufacturing sector argues that:

Table 2.8 Productivity trends – an alternative view.

Year	Employment (A) (000s)	Productivity (B ÷ A)	Output (B) (as an index)
1978	203.5	0.53	108.8
1979	202.6	0.55	110.9
1980	178.5	0.56	99.9
1981	158.0	0.59	92.6
1982	150.0	0.62	93.4
1983	147.6	0.65	96.4
1984	158.6	0.69	102.3
1985	152.3	0.72	109.4
1986	148.9	0.74	109.7
1987	150.0	0.74	110.7
1988	149.7	0.73	109.0
1989	143.1	0.74	105.3
1990	129.5	0.82	106.2
1991	108.4	0.88	95.9
1992	101.7	0.97	98.5
1993	107.1	0.92	98.2
1994	103.1	0.99	102.7
1995	100.0	1.00	100.0
1996	97.3	1.05	102.1
1997	92.7	1.00	92.7
1998	85.7	0.97	82.9

Source: Table 2.1.

‘the evidence from imports does not suggest major improvements in the competitiveness of UK manufacturing’.

It should be noted that studies of the relative international productivity performance of the sector have normally found the UK industry to have performed rather poorly relative to other countries. Steadman (1989, p. 41) in her comparison of the UK and German industries found that over a twenty year period ‘the value of net output produced per employee was greater in Germany than in Britain’ and that, while the gap was narrowing, it reflected a real German advantage in quality which was related to their policy of producing smaller runs of higher quality products (see Chapter 7).

As will be seen in Chapter 3, the virtually unanimous conclusion from academic studies of employment change in the apparel and textiles sector in a range of periods and countries has been that the main cause of job loss was not import competition but productivity change. It would not appear plausible to argue the same point for the UK apparel sector in the period after 1985. This issue will be considered in greater detail, as indicated, in Chapter 3.

In summary, therefore, the picture which emerges from Table 2.8 in particular is of a steady rise in productivity (by UK standards) within the industry itself over the entire period from 1978 to 1998. Productivity has nearly doubled.

Particularly large increases were recorded in the second half of the 1980s when output was still more or less at the 1978 level but employment was down by some 30 points.

Similarly, there were a few years in the 1990s (such as 1994 and 1996) when output rose again to the 1978 level but employment continued to fall so that productivity surged. As output itself dropped quite severely in 1997 productivity also fell. In terms of its relative productivity performance the textile sector widely defined enjoyed its best periods between 1978–83 and 1980–85. After 1985 the rate of increase in productivity within the sector fell badly behind that in UK manufacturing as a whole and became negative after 1990.

B. The sectoral division of the apparel industry

The industry can be sub-divided according to the type of garment manufactured. Table 2.9 is based on Winterton (1996, p. 29) and is based on the old Standard Industrial Classification (1980). It can be seen that the Women’s and Girls’ Light Outerwear (4536) sector is by far the largest. In proportionate terms there have not been many significant changes over the period 1983–91. The largest sector has lost ground marginally while the two male related sectors (4534 and 4535) have made some small proportionate gain. Winterton (1996, p. 28) relates these changes to sectoral differences in import penetration, stating that:

‘the two sectors which are experiencing the highest rate of import penetration are the same sectors which appear to be shrinking as a proportion of the total industry, *viz.* sectors 4533 and 4536 in which according to figures reproduced by Winterton (1996, p. 27) the rate of import penetration rose by 89% and 75% respectively.’

Table 2.9 Size of each sector (as percentage of whole).

	1983	1985	1988	1991
Weatherproof outerwear (4531)	5.8	5.8	6.8	6.5
Men’s and boys’ tailored outerwear (4532)	14.0	13.7	14.5	14.4
Women’s and girls’ tailored outerwear (4533)	13.7	10.6	11.8	12.3
Work clothing and men’s and boys’ jeans (4534)	8.2	8.6	9.1	9.3
Men’s and boys’ shirts, underwear, nightwear (4535)	9.1	10.6	11.5	12.9
Women’s and girls’ light outerwear, lingerie and infants’ wear (4536)	37.5	37.4	35.7	32.8
Other dress industries (4538)	11.6	10.9	10.8	11.6

Source: Taplin (1996, p. 29).

Note: Figures are based on sales value.

At first sight this conclusion seems to clash with another statement by Winterton (1997, p. 28) that:

‘disaggregated statistics show that between 1973 and 1991, the women’s sectors increased as a proportion of the total for clothing manufacture, while men’s clothing came to account for a correspondingly smaller proportion of net output.’

The reason for the difference is, the present author suspects (apart from the slight variation in time period), that Table 2.9 is based on sales value while the latter statement is based on output data.

The latest available official statistics are presented in Table 2.10. These figures conform to SIC (1992) and are given in terms of employment, value added and sales. Unfortunately, as can be seen from Appendix A, the sub-sectors in the 1992 SIC do not match neatly to those in the 1980 SIC.

Table 2.10 Sectoral divisions, 1996.

Sector	Employment (000's)	%	Gross value added (£m)	%	Sales (£m)	%
18.1	0.9	—	7.0	0.3	24.6	0.4
18.21	12.5	7.7	149.4	5.9	450.2	7.4
18.22/1	30.9	19.1	679.6	26.6	1,390.1	22.6
18.22/2	49.5	30.6	676.8	26.5	1,614.7	26.2
18.23/1	12.7	7.9	223.6	8.8	513.4	8.3
18.23/2	27.1	46.8	406.7	15.9	1,041.7	16.9
18.24/1	3.0	1.9	45.2	1.8	133.9	3.2
18.24/9	24.9	15.4	357.3	14.0	950.2	15.4
Total (Division 18)	161.5				6,124.8	

Source: ONS (1998), Sector Review, HMSO, London.

It is, therefore, extremely difficult to assess trends at a sub-sectoral level over time with any degree of confidence. If the final column of Table 2.10 is compared with that in Table 2.9 and it is assumed that 18.22/2 + 18.23/2 in Table 2.10 equates to 4536 + 4533 in Table 2.9 then it could be concluded that womens’ wear had fallen from 45.1% of the total in 1991 to 43.1% in 1996. Women’s wear and men’s outerwear appear by all measures to be the most important sectors of the industry in 1996.

C. Regional distribution of the industry

The historical specialisation of the UK regions in the apparel industry is well covered by Godley (1996). Table 2.11 shows the regional specialisation of

Table 2.11 Regional specialisation in the UK Apparel Industry 1851–1911 by location quotient.

Region	1851		1881		1911	
	M	F	M	F	M	F
London	1.6	1.8	1.5	1.6	2.2	1.8
S. East	0.7	1.0	0.8	0.9	0.7	0.8
S. Midlands	0.8	0.8	0.8	0.8	0.9	1.0
Eastern	0.8	1.0	0.7	1.0	0.7	1.1
S. West	0.9	1.2	1.0	1.3	0.9	1.2
W. Midlands	0.9	1.0	0.8	0.9	0.8	0.9
N. Midlands	1.0	1.0	0.9	1.0	0.7	0.9
N. West	1.0	0.9	0.9	0.9	0.9	1.0
Yorkshire	1.1	0.9	1.1	0.8	1.3	1.0
Northern	1.0	0.8	1.1	0.8	0.6	0.6
Wales	0.9	0.7	1.0	0.9	0.7	0.9
GB	1.0	1.0	1.0	1.0	1.0	1.0

Source: Godley, A. (1996) in I. Taplin & J. Winterton (ed) *Restructuring within a Labour Intensive Industry*, Avebury, Aldershot.

Notes: (1) The location quotient is the density of apparel employment in a region divided by that for England and Wales as a whole.

(2) Therefore, figures over 1 indicate that the industry is prominent in a region.

(3) M = male; F = female.

employment in 1851, 1881 and 1911. Godley (1996) argues that a greater insight can be obtained by considering the role of urban centres and that, by 1911, four such centres were of paramount importance – the East End of London, Leeds, Manchester and Bristol. In Godley’s view:

‘the logic of growth also meant that once the relative position of firms and regional centres had been established they were not going to alter, at least not until the rather more dramatic changes of the 1960s and 1970s’.

The picture is brought more up to date in Table 2.12, which is derived from Briscoe (1971, Table 20). This table suggests that by 1961 the three most important regions were London, Yorkshire and the North West.

The most recent figures available are for 1996 and are given in Table 2.13. This table reveals one significant change in the regional distribution of apparel manufacture in the UK – the rise in importance of the East and West Midlands. This change is generally attributed to the re-emergence of the so-called ethnic apparel industry. As Winterton (1997, p.31) observes substantial increases were:

‘concentrated in the East End of London, the East and West Midlands and West Yorkshire, where ethnic minorities are concentrated. The entrepreneurs from ethnic minorities . . . are able to exploit kinship ties and more extensive forms of gender subordination, employing women from the same

Table 2.12 Regional distribution of employment in apparel, 1939–1961 (%).

Region	1939	1950	1961
London and South East	34	31	30
Eastern and Southern	7	7	8
S. West	4	4	3
Midlands	5	4	4
N. Midlands	5	6	7
E. and W. Ridings	16	13	14
N. West	20	20	19
North	2	5	6
Scotland	5	7	6
Wales	1	3	3

Source: Briscoe, L. (1971), *The Textile and Clothing Industry of the UK*, Table 20, Manchester University Press, Manchester.

Table 2.13 Regional employment 1971–1996 (in thousands).

	1971		1981		1991		1996	
S. East	94.8	(28.6)	49.0	(23.3)	22.6	(15.5)	22.0	(15.9)
E. Anglia	5.1	(1.5)	3.9	(1.9)	0.9	(0.6)	1.8	(1.3)
S. West	13.6	(4.1)	8.1	(3.8)	5.3	(3.7)	5.0	(3.6)
W. Midlands	14.7	(4.4)	11.9	(5.6)	12.7	(8.7)	13.0	(9.4)
E. Midlands	27.0	(8.2)	25.8	(12.2)	27.2	(18.6)	28.6	(20.7)
Yorkshire and Humberside	45.9	(13.9)	27.3	(13.0)	19.6	(13.4)	14.1	(10.2)
N. West	59.4	(18.0)	35.8	(17.0)	20.7	(14.2)	20.2	(14.6)
North	27.6	(8.3)	15.9	(7.6)	12.7	(8.7)	11.2	(8.1)
Wales	13.4	(4.1)	9.2	(4.4)	8.1	(5.5)	7.3	(5.3)
Scotland	29.3	(8.9)	23.6	(11.2)	16.3	(11.1)	15.0	(10.9)
GB	330.8		210.5		146.1		138.2	

Source: 1996 from *Labour Market Trends*, Nov 1997; earlier data from various editions of *Department of Employment Gazette*.

Note: Figures in brackets represent percentages of the GB total.

or other ethnic minorities who form part of the underclass or secondary labour market. Small clothing enterprises . . . have been especially prominent . . . in the Asian communities of the West Midlands’.

These developments have been well documented by Ram (1994), for example. In effect, these companies have re-created areas of low (wage) cost activity within a relatively high labour cost country – they are exploiting a low order competitive advantage, in Porter’s terms (see Chapter 1).

This phenomenon can be viewed from a number of perspectives. On the one hand the growth of this sector has prevented the total numbers employed in the UK from declining even more severely than they have. Many commentators, however, deplore the re-emergence of the old ‘sweat shop’, e.g. Winterton (1997) writes about this strategy as being one of wage depression and de-

skilling and of establishments being ‘substantial through sweated labour’. He further argues (1997, p. 197) that ‘wage depression based on ethnic minority exploitation is a feature of clothing in the UK, US and Germany because ethnic minority workers are concentrated in local labour markets in these countries’.

From a third point of view it is interesting to note that the growth of employment in the East and West Midlands which was commented upon by Jones (1996) has continued through to 1996. A ‘shift share’ or ‘components of change’ analysis of the variation in regional employment in the period 1971–1991 by Jones (1996, p. 67) suggested that in the case of the expanding regions of the East and West Midlands the market influences on the West Midlands pattern of regional change were locational factors captured by the so-called ‘differential shift’ (e.g. relative wages):

‘over the twenty year period, only two regions succeeded in escaping the drain of jobs in the industry *viz* the East and West Midlands. In both the Differential Shift factor was dominant.’

It is a moot point as to whether or not this ethnic industry can survive and prosper in the next decade as trade liberalisation occurs, the potential female labour force aspires to wider opportunities and the impact of minimum wage legislation takes hold. The changes in the regional distribution of employment 1971–1996 are summarised in Table 2.13. It can be seen that the big ‘winners’ are Midlands regions while the biggest ‘losers’ are the more traditional areas of the South East, Yorkshire and the North West.

The regional distribution of the industry can also be assessed in terms of the number of manufacturing groups – see Table 2.14 and in terms of output and capital expenditure. In terms of enterprises the most important regions (in 1997) were, by a wide margin, London, the North West and the Midlands regions. In terms of output the same pattern is evident with the exception that Yorkshire and Humberside, the North West, South East and Scotland appear rather more prominent while in terms of investment the North West stands out together with the East Midlands (based on figures covering textiles and clothing combined).

It is interesting to note that, in a study of changes in regional patterns of activity, Wren (1999) found that all UK regions became more specialised in the period 1971–1994 but that, somewhat paradoxically, industry has become less geographically concentrated over time, resulting in a convergence of regional structures towards a national norm. These trends were found to be strongest in the less well off regions (such as those in which textiles and apparel tend to be located) and to have been brought about by the decline of traditional manufacturing industries which had been encouraged by the availability of automatic but capital intensity related grants up to the end of the 1980s. They estimated that both the Regional Development and Regional Selective Assis-

Table 2.14 Regional distribution of enterprises (1997).

Region	Percentage of enterprise groups
North East	2.1
North West and Merseyside	10.7
Yorkshire and Humberside	5.7
East Midlands	13.3
West Midlands	10.7
Eastern	4.8
London	36.2
South East	4.7
South West	3.6
Wales	2.2
Scotland	7.5
Northern Ireland	2.0

Source: Derived from *UK Fashion Report*, Table 4.14, p. 137.

tance programme had exerted significant negative effects upon the textile and clothing sectors. In contrast, the employment related Regional Employment Premium had a strong positive impact upon employment in the sectors.

D. The structure of the UK apparel industry

The aim of this section will be to utilise the S–C–P (structure–conduct–performance) model as a framework within which to describe the basic features of the UK apparel manufacturing sector. At each stage the implications of the structural features will be drawn out and the findings of research studies into each structural variable summarised.

(i) The size distribution of companies

The industry is usually described as dominated by small firms. Singleton (1991, p. 127) argues that ‘the industry has always been atomistic’ quoting a figure from as far back as 1841 which shows that 73 per cent of Lancashire cotton firms had under 200 employees.

The *UK Fashion Report* (EMAP/MTI, 1998/99) commented that:

‘unlike many long established industries, the clothing industry shows few signs of “encroaching monopolism”. Companies tend to be numerous and not very large’.

Research into the small firm sector by the Durham Business School (1999) revealed that the number of businesses in the footwear and clothing sector fell

by 27% between 1988–1993. Although the sector was dominated by small firms it was not one of the biggest of the small firm sectors. Seventy-four per cent of the firms in the footwear and clothing sector had a turnover of under £250 000.

Briscoe (1971, p. 158) wrote that ‘generally the average size of an establishment in the clothing industry is much smaller’. It is frequently argued that the small firm nature of the industry is one of the major factors which helps to explain the difficulties the industry encounters in such areas as raising finance, investment and human resource management. The sorts of problems faced by small firms have been well documented in the literature. This is one issue to which the positivist research philosophy can be applied: tests can be carried out to see if it is true that the small firm is over-represented in the apparel manufacturing sector. An extensive amount of statistical data is available on the size distribution of enterprises by industry and individual industries can be compared with the average for all manufacturing. This issue has been rigorously examined for the year 1991 by Jones (1993). In terms of cross section data (at a fixed date) it was found that:

- (a) The apparel sector was not in any way unusual in terms of the prevalence of small units – in most industries most of the companies are small.
- (b) If, however, attention is focused on local units (premises) rather than ownership units then the apparel sector *does* show a marked bias towards smaller units, i.e. the percentage of the work force employed in small premises is much higher than the average. Turnover data (as opposed to employment data) also revealed bias towards smaller operations. Gross and net output data (for 1990) showed that firms employing under 200 people were responsible for 40.1% of gross output and 40.3% of net output in the apparel sector as opposed to 23.1% and 24.7% in manufacturing as a whole.

Finally, Jones (1996) examined time series data over the period 1971 to 1991 in terms of both employment and turnover. He concluded that the trend in the apparel sector was the opposite to that experienced by manufacturing as a whole in that the latter witnessed a contraction in the relative importance of the larger size bands and an expansion in activity in the smaller ones. Paradoxically, therefore, the apparel sector was moving, very slowly, towards the norm, e.g. the percentage employed in the 1000+ band in the apparel sector in 1985 was 6% of the average, whereas in 1990 it was 21%. The latest available data is for 1996 and 1997 (Table 2.15) and, while this data is not in quite the same format as that of the earlier analysis, it does nothing to significantly alter the conclusions drawn above, i.e. that in common with all industry, most enterprises in the apparel sector are small but that by comparison with the average, a greater proportion of employment (59.9% compared with 50.7%) is

Table 2.15 Basic size distribution analysis (%).

	Manufacturing				Apparel (Division 18)			
	ENT	EMP	GO	NO	ENT	EMP	GO	NO
<i>Size category</i>								
1-9	71.5	11.4	25.7	29.0	71.9	20.4	47.7	46.6
10-19	12.2	6.9						
20-49	8.8	11.1						
50-99	3.4	9.7						
100-199	2.1	11.6	9.9	10.0	1.1	7.7	7.2	6.9
200-299	0.7	6.9	6.7	6.5	0.5	5.6	5.6	5.0
300-399	0.4	5.6	6.2	5.9	0.2	2.7	2.8	2.6
400-499	0.2	4.1	3.9	4.1	0.1	3.1	3.8	3.7
500-749	0.3	7.4	9.4	8.5	0.2	7.1	9.9	9.8
750-999	0.1	4.4	5.8	5.0	0.1	3.8	4.7	4.9
1000-1499	0.1	5.2	7.2	7.3	0.1	3.0	3.0	3.1
1500-1999	0.1	3.2	4.7	4.7	0.1	4.6	7.0	9.1
2000+	0.1	12.6	20.6	19.0	0.1	10.1	8.2	8.2
<i>Aggregate totals</i>								
1-199	98.0	50.7	35.6	39.0	98.8	59.9	54.9	53.5
200-999	1.7	28.4	32.0	30.0	1.1	18.5	26.8	26.0
1000-1999	0.2	8.4	11.9	13.0	0.2	7.6	10.0	12.2
2000+	0.1	12.6	20.6	19.0	0.1	10.1	8.2	8.2

Source: *Business Monitor* (BM) PA 1002 (1996) Table 5; see also BM PA 1003 (1997).

Notes: (1) GO = Gross Output
 NO = Net Output
 ENT = Enterprises
 EMP = Employment

(2) The total as a percentage may not add exactly to 100 due to rounding.

in an enterprise employing under 200 people and that, most significantly, in terms of gross output, a much higher proportion of activity (47.7% compared with 25.7%) is carried out in enterprises employing less than 100 people.

In common with all manufacturing activity most local units (numerically) are small. Therefore, it can be concluded that it is not correct to say that the apparel manufacturing industry is unusual because most firms are small (most firms in most industries are small!) *but* it is true to say that the proportion of the industry's output generated in smaller units is unusually high. This reflects the lack of scale economies in apparel production and low level of capital investment already noted.

Therefore, as observed above, it is probable that the generation of output in industry will be adversely and disproportionately affected by the problems which are endemic in the small firm sector. These have been extensively documented by such commentators as Bannock (1981); Storey (1994); Stokes (1995) and Barrow (1998).

In addition to all these problems it is pertinent to raise the question of the contribution made by the size distribution profile to the ability or inability of

the sector to pull towards itself a large share of the value added in the textile pipeline. Unfortunately, it is likely that different measures of size and size distribution are relevant to the various issues.

If we take the economies of scale issue first, it is clear that output indicators are most relevant here. In this case, it is probably correct to argue that the clothing industry is different and is disadvantaged by the bias towards small producers (see Table 2.15). It must be recalled, however, that the evidence from Winterton (1996) suggested that the structure of the industry is changing over time towards more output being produced in larger units. In relation to arguments about the relative size of manufacturers and their (largely retail) customers, a different indicator would be more appropriate, such as a measurement based on the number of companies in the various size bands.

Unfortunately, even this is not clear cut, because if the discussion is about financial strength, it is probably better to consider size bands in terms of output rather than employment. The picture is further complicated by the fact that size distributions vary according to the use of local or legal units in the analysis. Therefore, while the simple fact that the size distribution of actual companies (defined either in terms of legal or local units) in the clothing industry is *not* significantly different from the all manufacturing norm would appear, at first sight, to refute the proposition that special case status is required, it has to be acknowledged that in this (financial/ managerial) context, the position is rather more complex, given that output measures favour the proposition that the sector is disadvantaged. It is probably true that the lack of power implied by the output distribution helps explain the paradox that, although apparel manufacturing absorbs the largest share of the output of the textile sector within the pipeline, apparel producers do not appear to control the pipeline in any significant fashion.

In terms of employment-related or human relations issues, things are a little clearer. It is evident that a disproportionately high percentage of people working in the clothing industry do work in small units and that, over time, the experience of the industry with regard to the distribution of employment across the size bands has been the opposite of the average. This is an area of experience which is also undergoing significant change in the sector, e.g. with the abolition of Wage Councils and the introduction of a legal minimum wage.

It is, therefore, not possible to offer a very simple, one sentence answer to the question posed at the beginning of this section. In simple terms, *most* sectors (as measured by the all manufacturing norm) are dominated by small firms. This is the norm, but, as has been seen, closer examination of the statistical evidence reveals a much more complex picture. It is worth noting that there have been significant changes in the clothing industry at the upper end of the size distribution.

(ii) Cost structures and economies of scale

Economies of scale are said to exist when long-run average unit costs fall significantly with increased output and when, as a result, the minimum efficient size of operation is very large. In such industries the cost penalty suffered by operations below the optimum scale can be very large. Normally, the presence of significant scale economies is accompanied by heavy capital investment in fixed plant, a significant degree of automation and the repetitive production of highly standardised products. Studies of UK industry by Scherer (1975) and Pratten (1971) indicated that economies of scale were most important in such industries as brewing; paint; cigarettes; glass; steel; refrigerators; some types of yarn; oil; cement; detergent; and bread and brick production.

The manufacture of apparel is not characterised by the presence of significant economies of scale. As Singleton (1997, p. 144) observes as a result of 'the lack of economies of scale in textiles and clothing, small and medium sized firms should be able to obtain a minimum efficient scale of production'.

The size distribution of companies in terms of the proportion of output produced in smaller units supports this argument in the sense that it is observed that small operations do exist and persist in the apparel industry. This line of argument was initially advanced by Stigler (1958). In brief, it argues that the observed size distribution of operations indicates which is the most efficient size – otherwise it would not survive. There are many objections to the use of this technique of analysis because survival can be the result of many other factors but Hay (1991, p. 51) concludes that 'it seems as though the technique is most applicable in competitive sectors'. Therefore, in the light of the weight of supporting evidence indicating such elements as low capital intensity and the shortness of production runs it is probably safe – and not too great a departure from the positive approach – to accept that the industry is not one in which small size is an unsurmountable handicap. The capital requirement needed to start up apparel production is not great as seen above in Table 2.4; e.g. capital employed per person in UK apparel manufacture is £804 compared to the average for the manufacturing sector of £4191 and £10 330 in the chemical industry.

A second important feature of cost structures in the apparel sector is the very high degree of labour intensity which still characterises production – especially at the assembly stage. This feature of the industry can be illustrated in a variety of ways: the industry accounts for a much higher proportion of employment than it does of output; capital use per head is (as was seen above) extremely low; and, finally, wages and salaries as a proportion of gross value added are relatively high. In many respects this continued labour intensity is the single most important feature of the apparel industry – it is this factor which is at the

very core of many of the industry's current problems and as such it will be examined in greater detail in Chapter 4.

The most important single element in the cost structure of the apparel production process is fabric, which is normally held to account for around 40% of the total cost. In brief, it can be stated that the textile manufacturing companies – who are, therefore, the main element when supplier power is to be considered – tend to be much larger than apparel manufacturers.

(iii) Barriers to new entry in the apparel industry

Entry barriers are features of the industrial landscape which prevent new producers entering the industry. The most important barriers identified in the literature include the existence of patents; the presence of important economies of scale; heavy initial capital investment requirements; and the existence of special skills or techniques which are not easily replicated. As has been seen above, capital requirements in the apparel industry are low; scale factors are relatively insignificant and, as was noted in Chapter 1, the technology is relatively simple. Therefore, entry barriers in the apparel manufacturing sector tend to be low. In the history of industrial economics it should be noted (Martin, 1993, p. 5) that 'the condition of entry was central to the S-C-P paradigm'. Therefore, the ease of entry into the sector is likely to be significant. Stead (1996, p. 5) argues that the role of 'entry barriers is important in that without them even the most complete monopoly is open to competition from new entrants'. The absence of significant entry barriers in apparel manufacturing would, therefore, be expected to produce relatively low profits in the sector.

(iv) Vertical integration

A vertically integrated company is one which operates at more than one level of the pipeline illustrated in Fig. 1.1. If, for example, an apparel manufacturer moved into fabric manufacture it would be described as backward integration. If it moved into retailing it would be described as forward integration. Vertical integration has both advantages (such as co-ordination) and disadvantages (such as the absence of market discipline). There is no neat statistical measure available of the extent of vertical integration in UK industry. Clearly, vertically integrated companies have populated the textile-apparel pipeline – Courtaulds, Coats Viyella and the old Burtons organisation, for example. However, recent trends have been in the opposite direction with the large textile conglomerates breaking up into separate businesses – the best example being the emergence of Courtaulds Textiles in 1990. The majority of UK apparel manufacturers are not vertically integrated. This state of affairs seems to reflect the historical per-

spective in that Singleton (1997, p.4) felt able to comment that even at the height of its powers the cotton industry exhibited few signs of integration even within the cotton sector. One caveat must be inserted at this point and that is the extent to which the traditional form of vertical integration (in which the integration was achieved by ownership) could be replaced by the relatively newer organisational concept of a managed supply chain. A supply chain is a group or network of legally independent companies which have agreed to work together to achieve some common objectives in the supply of a given product. This issue will be considered in more detail in Chapter 7. Finally, it is worth noting that vertical integration is somewhat more common in the apparel retailing sector. ICC (1998, p. 3) consider that, in their examination of the retail sector, 'vertical integration is a traditional characteristic of this sector' although current examples are, in the view of the present author, somewhat limited.

(v) *Research and technology*

It has already been noted that the apparel manufacturing sector is not a strongly knowledge-based industry. This is confirmed by the evidence on expenditure on research (ONS, 1998) which shows that the textiles industry (including apparel) was responsible for only 0.3% of R&D expenditure in the UK in 1997. Pharmaceuticals, by way of contrast, was responsible for 22.5%. An earlier study by Jones (1989) was able to isolate the apparel industry and showed that, in 1986, it was responsible for only 0.1% of the total R&D expenditure in the UK. These issues will be considered in greater detail in Chapters 4 and 7. The point to be noted here is that researchers have concluded (Stead, 1996, p. 134) that 'the highest level of innovation is associated with oligopoly and four firm concentration ratios of about 50 per cent' whereas the five firm ratio in the apparel industry was, in 1992, only 20 per cent, as is seen in section (vi) below.

The Sector Review (ONS, 1998) revealed that the apparel industry in the UK, in 1997, employed just 1000 scientists and spent £33 million on research (which represented 0.5% of the manufacturing total). Fifty per cent of the research in the industry was funded by overseas money. Clearly the amount of R&D carried out in any sector is affected by the technological opportunities available but, in addition, Stead (1996, p. 127) has shown that 74% of R&D is carried out by large firms employing over 10 000 people. In both respects the apparel sector is under-represented.

Most of the evidence suggests (Scherer, 1990, p. 660) that there is a

'threshold concept of the most favourable climate for rapid technological change. A bit of monopoly power in the form of structural concentration is

conducive to innovation, particularly when advances in the relevant knowledge base occur slowly’

and that there is

‘a modest positive influence for concentration especially in low opportunity industries’.

Therefore, the structure of the sector is not conducive to extensive R&D activity and the data confirms Singleton’s (1997, p.46) view that ‘although R&D statistics are notoriously unreliable it is obvious that textiles and clothing are not knowledge intensive industries’.

One reason, accordingly, for the contraction of the sector might be lack of technological progress.

(vi) The degree of buyer concentration

This is a measure of the extent to which the output of a sector is purchased by customers who represent a high proportion of the selling industry’s total output. It is a significant feature of both the Five Forces Model and the S-C-P model and is often known as the degree of monopsony. The main customer of the apparel manufacturing sector is the retail sector. In the UK (see Chapter 10) apparel retailing is highly concentrated with a significant proportion of sales being concentrated in the hands of a small number of large retailers. The disparity in size between the largest UK apparel manufacturers and retailers is documented in Section E below. The importance of this fact is that as Hay (1991, p. 236) observes:

‘many manufacturing sectors are concerned with intermediate products sold to a few buyers in another sector . . . major buyers will “shop around” . . . and thus put pressure on margins’.

Lustgarten (1975) found that buyer concentration ratios had a significant impact on profit margins. Hay (1991, p. 236) concluded that on balance the results of research studies on this issue ‘indicate a significant, though not necessarily large, negative impact of buyer concentration on sellers’ margins’.

As has been observed data is hard to come by but it is generally recognised (Scherer, 1990, p. 517) that ‘appreciable pockets of monopsony power can be found’. The power exercised by UK apparel retailers represents such a pocket and it would be surprising if they did not exercise this power to their own advantage within the pipeline, given the historical tendency towards adversarial relationships which has been noted in Chapter 1. As Dicken (1998, p.294) observes, ‘the production chain . . . is becoming increasingly transformed into a buyer-driven chain’.

Cool’s (1998, p. 921) study of the French manufacturing sector found that

'buyer power specifically strongly matters for seller profitability' and that 'buyer power had a much higher effect on seller profitability than supplier power'. Galbraith (1983, p. 248) had previously studied, using an American data base, the impact of exploited power in the production chain and confirmed the hypotheses that 'power conditions between adjacent stages in the production chain are related to a firm's profitability'.

(vii) The degree of seller concentration

This is the dimension of market structure which has received the greatest attention and which has, in a very real sense, been the major focus of research in industrial economics over the years. It is a measure of the degree of monopoly power exercised by the largest sellers in an industry and is associated at the national level with undesirable economic performance. The basic structural proposition is that high concentration produces high profits. As Chakravarty (1995, p. 1) observes, concentration has:

'been regarded as one of the significant dimensions of market structure because it is believed to have played an important role in determining market power and hence business behaviour and performance'.

A large number of measures of the degree of seller concentration exist but, in brief, it is normally assessed by using some form of the ratio of total industry output, sales or employment accounted for by a specified number of the largest sellers – i.e. the so-called concentration ratio. In the UK a five firm (employment) concentration ratio is available from the Census of Production. In 1992 the CR5 (net output) for the apparel sector was 20%, i.e. the top five firms accounted for only 20% of total output. This contrasted with a figure of 83% in the case of motor vehicles. It is clear that the apparel manufacturing industry remains fragmented. The degree of market power wielded by apparel manufacturers is, therefore, likely to be extremely low. The independent role of seller concentration in determining profits has turned out (from a huge volume of research in many countries) to be rather more complex than had been expected but its role does remain intact.

As Hay (1991, p. 260) concluded, half of the research studies: 'find a significant positive relationship' between profits and concentration. Scherer (1990, p. 410) stated that

'the classic testable hypothesis has been that ... profit retention by firms in highly concentrated industries will tend to be significantly higher than in firms in ... atomistically structured industries'

and that, while findings are mixed, a tentative conclusion that 'profitably is positively associated with a sellers' own market share' is justified.

Traditionally, as has been observed in Chapter 1, the apparel manufacturing industry has been regarded as atomistic (i.e. dominated by small firms with little market power). Scherer (1990, p.77) produce, for example, detailed concentration data for the USA in the early 1980s which showed that sectors of the apparel sector were among the least concentrated of all industries.

(viii) The degree of specialisation (or diversification)

The apparel manufacturing sector is extremely highly specialised (or demonstrates very little diversification); apparel manufacturers generally do not engage in other activities. The index of specialisation was 98% in 1987; 97% in 1991 and 93% in 1996 (ONS, 1996). Chakravarty (1995, p.21) has noted that ‘for a number of countries there is a clear indication of a rapid increase in diversification’. This has not been the case in the apparel sector which continues to have ‘all its eggs in one basket’.

(ix) The degree of import penetration

Finally, it is vital that the international dimension is brought into the centre of the analysis. As has been explained in Chapter 1, no serious analysis of the current state and future evolution of the UK apparel sector can be made which ignores this element. The degree of import penetration is the percentage of demand in a country which is supplied by imports rather than by domestic suppliers. As is demonstrated in Chapter 5, the degree of import penetration in the UK apparel market is extremely high and rising rapidly. In terms of the model in Fig. 1.2, the role of imports can be brought in at a variety of points, e.g. as part of the consideration of the number of sellers in the field or as part of existing rivalry. The importance attributed here to the role of imports is justified by Hay’s (1991, p.236) statement that to

‘the extent that imports and exports are important, domestic market structure will be an unreliable indicator of market power. An important extension of structure-performance studies, therefore, is the introduction of foreign trade, particularly for open economies where trade is sizeable in relation to industrial production. Imports represent the most immediate new entry threat in the domestic market ...’

Some studies have tried to recalculate domestic concentration ratios by including imports in the measure of market size. The majority of these studies, such as Utton (1982), found that the inclusion of imports removed most of the measured changes in concentration which had been previously recorded. Accordingly, Hay (1991, p.237) concludes that ‘trade will make a significant difference to profitability’. Other studies have included trade variables in

regression analysis and have usually found that import penetration reduces profitability. Hitiris (1978) found that in the UK protection rates did significantly influence profit margins. Katics (1994), in a study of the USA, found that there was 'a sizeable effect of import competition on price-cost margins for the time period 1976–1986'. This was confirmed for the UK by Conyon (1991) who also found a positive relationship between the degree of seller concentration ((vii) above) and the level of profitability.

Therefore, given that concentration ratios in the apparel manufacturing sector were initially extremely low (indicating the presence of little market power) their modification to allow for the influence of an extremely high degree of import penetration must, by definition, reduce the ability of domestic producers to influence the market to something approaching zero.

E. The major players

The biggest UK-based apparel manufacturers in terms of sales are shown in Table 2.16. Clearly, such listings can quickly become dated but the table does serve to indicate who the major players in the UK industry are. It must be

Table 2.16 The largest UK apparel manufacturers, 1996/97 (sales in £ millions).

Rank	Manufacturer	Sales
1	Courtaulds Textiles Plc	1,006.5
2	Pentland Group Plc	889.6
3	Baird Textile Holdings Plc	595.2
4	Coats Viyella Clothing	342.9
5	Dawson International	297.4
6	River Island Clothing Co.	285.5
7	Laura Ashley	249.8
8	Levi Strauss (UK)	205.2
9	Claremont Garment Plc	185.9
10	Burberry	174.6
Other significant companies were:	Austin Reed	78.2
	Aquascutum	44.4
	Alexon	118.8
	Umbro	132.9
	Stirling Group	101.8
	Sherwood Group	166.1
	S.R. Gent	73.9
	Dewhurst (Ladies' wear)	146.3
	Wrangler	100.0
	Slimma Plc	22.9

Source: Scholes (1998), *Business Ratio Plus*, Schrober Direct Marketing, Hampton, Middlesex.

remembered that not all the actual manufacturing and processing takes place domestically. It is instructive to note that the sales of the (then) largest UK apparel retailer (Marks and Spencer) totalled £7841.9 millions, i.e. eight times more than the sales achieved by the biggest UK-based manufacturer. In fact, the top few retailers were all bigger than the biggest manufacturer in terms of sales revenue.

The size of a company can obviously be measured in a variety of ways – sales, profits, assets and employees, for example. The top ten companies by those three measures are shown in Table 2.17. In terms of assets, the biggest UK-based apparel manufacturer was Courtaulds Textiles with assets of £609.6 million in 1996/97. The biggest retailer (M&S) had assets of £6885.4 million. In terms of profitability the most successful UK-based apparel manufacturer was Burberry with £53 141 000. In comparison, the most successful retailer (in 1996/97) was Marks and Spencer with £1 102 000 000.

Table 2.17 Rankings by sales, assets and number of employees.

Manufacturer	Sales	Assets	Number of employees
Courtaulds	1	1	1
Pentland	2	2	4
Baird Textile Holdings	3	4	2
Coats Viyella	4	6	3
Dawson	5	3	6
River Island	6	9	5
Laura Ashley	7	7	—
Levi Strauss (UK)	8	—	—
Claremont	9	10	7
Burberry's	10	5	—
Sherwoods	—	8	—
Stirling	—	—	8
Alexon	—	—	9
Dak Simpson	—	—	10

Source: Scholes (1998), *Business Ratio Plus*, Schrober Direct Marketing, Hampton, Middlesex.

F. The structure of the apparel sector and the current problems of the sector

The aim of this section is to evaluate the impact of the structure of the industry both upon its performance and its ability to cope with the problems it faces. The analysis must be seen in the context of general conclusions drawn upon the usefulness of the S-C-P model which can be captured by the view of (Chakravarty, 1995) that ‘empirical studies report mixed results on the relationship

between performance and structure' and (Scherer, 1990) that 'the competitive norm does seem to serve as a good approximation but it is hard to state in advance how much competition is needed to achieve desirable economic performance'.

It will be recalled that at the end of Chapter 1 the main conclusions were that the industry has declined in strategic importance within the UK economy and that its role within the textile apparel pipeline has (somewhat paradoxically) been a subordinate one. The main problem faced by the industry is, in brief, one of contraction and lack of influence and market power both within the pipeline and the wider economy. It has been argued above that in order to make sense of trends it will be useful to employ the model outlined in Fig. 1.5.

The industry revealed by the analysis (Section D) above is one which is almost uniquely *structurally disadvantaged* in its ability to deal with the problems it confronts. The following are the main structural features:

- (1) The industry is characterised by the presence of a large number of relatively small operators and the influence of smaller companies (in terms of output) is unusually large.
- (2) The degree of market power exercised by the industry, as indicated by the very low degree of seller concentration, is very low.
- (3) The industry is extremely labour intensive and is not knowledge based.
- (4) Scale economies are relatively unimportant.
- (5) There is little sign of diversification in the sector.
- (6) Barriers to entry appear to be low.
- (7) The degree of buyer concentration is abnormally high.
- (8) The degree of import penetration is very high and rising.

The main implication of these structural characteristics is that the industry would be relatively weak and lacking in market power. Profit margins, both in absolute terms, and relative to other sectors of the pipeline would be expected to be low. Paradoxically, the profile described above would lead to good public performance in the sense of providing wide choice and low prices to consumers, which expectation is large confirmed by the analysis of the consumer market in Chapter 10.

These conclusions are confirmed by the application of the Five Forces Model which indicates that the ability of the apparel manufacturers to capture a share of the profit generated by the pipeline into which they fit is likely to be compromised by the fact that they have a low level of market power, squeezed as they are between larger and more powerful suppliers and buyers. The major source of power in the textile-apparel pipeline lies with the retailers. In Dickens's (1998, p. 294) words, 'demand is becoming increasingly dominated by the purchasing power of the major multiple retailing chains'.

As was shown in Section E above, the largest UK apparel retailer is some

eight times larger than the biggest manufacturer. Additionally, although the apparel sector is by far the biggest purchaser of fabric its atomistic structure further inhibits its ability to realise a large share of the value added generated by the conversion of fabric to garments. Therefore it could be predicted that apparel manufacturers would be less profitable than retailers.

In theory it should be possible to test these predictions within the positivist framework outlined in Chapter 1. Unfortunately, the data available is insufficient to allow this task to be completed with a desirable degree of certainty. Some progress can be made, however. Data published by ICC and analysed by Jones (1989) showed that, in the mid 1980s, out of 27 broad industrial sectors, the textiles and footwear sector ranked tenth on the basis of profits as a percentage of capital employed scoring exactly the industrial average. The profit : sales ratio was slightly below the average. At a more refined sub-sector level it was possible to identify the clothing industry in isolation from the rest of the textiles pipeline. In this case the apparel industry, in the mid-1980s, in terms of return on capital came 35th out of 192 industries but, in terms of profit on sales, slumped to 58th. Unfortunately, the latest edition of the statistical source (ICC, 1997) no longer contains entries for the apparel sector. The textiles entry includes most elements of the pipeline and is accordingly of less use in this context.

However, it has been noted above that the profitability of the apparel manufacturing sector is relatively low compared to apparel retailing. Therefore, while the data is less comprehensive than would be desired so that the profit expectations predicted cannot be easily confirmed or refuted, the balance of evidence – imperfect as it is – favours acceptance of the hypothesis that retailers will be more profitable than the manufacturers. It can be concluded that the task facing the industry – and by implication the firms within it – is a daunting one. The economic and structural environment within which actions have to be taken is extremely hostile. Success or failure is not, of course, entirely structurally determined. Strategic policy choices can make a difference even in the most adverse circumstances, as will be seen in Chapter 7.

There remains one factor to be considered – the importance of the international dimension. If attention is now focused less on the role of imports as a structural factor and is fixed instead on the role of the diamond framework (Fig. 1.5, top left corner) then the Porter Model's implications for the UK as a base for apparel manufacture do not appear strong. Few strengths remain in the supporting sectors in the UK; factor supply conditions (especially labour costs and research expenditure) promise little in the way of advantage; the impact of UK buyers in promoting excellence is somewhat problematical while the force of competition as a promoter of world class performance has (somewhat perversely) probably been inhibited by the reliance of industry upon the support of major retailers promoting relatively long production runs.

These issues will be more fully explored in the next chapter, which reviews the evidence of global shift in the apparel industry. It can be noted at this point that given that the industry has remained labour intensive, it is logically consistent to argue that the (relatively) high cost of employing labour in the UK has been a major factor in the contraction of the industry within the UK. As will be shown in Chapter 3, many commentators point to international trade as *the* major factor behind the collapse of the industry in the UK. This view has been expressed forcibly by, for example, Winterton (1996, p. 26) who argued that 'the crisis in the UK clothing industry can be directly attributed to the increase in imports'.

It has been argued in Chapter 1 that in resolving questions of causation a positivist research philosophy should be adopted. In this case the argument that the decline of employment and output in the UK can be directly attributed to the rise in imports is not generally supported by the research (see Chapter 3, Section E). However, there are good reasons to discount this evidence as being based upon a research technique which is seriously flawed. It cannot, in the view of the present author, be seriously denied that the threat from low cost sources of production created enormous pressures on UK-based producers (frequently exerted by the more powerful retailers) and was in Winterton's words (1997, p. 32) 'a major impulse promoting restructuring in response to successive crises' – crises which, as has been demonstrated above, the industry is almost uniquely disadvantaged to resolve. These pressures are likely to intensify in the early years of the new millennium as existing trade barriers are removed and UK retailers reduce their commitment to UK-based suppliers.

The reason for adopting what might seem to be an overly bleak and pessimistic view of the trends in employment and output in the sector is straightforward: if strategies are to be devised to deal with the problems, then realism is essential. Employing euphemisms or wishful thinking is unhelpful. The days when half a million people could be employed manufacturing garments in the UK are gone forever. There is little prospect that any UK government – whatever its political persuasion – is ever going to regard the industry as strategic. The pressures that have brought the industry to its current position seem unlikely to be reversed. Are there any serious commentators who would suggest that, for example, the labour intensive nature of garment assembly is likely to be miraculously transformed, or that substantial protection against low wage based imports is likely to be re-introduced after 2005 or that the labour cost gap between the UK and developing countries is going to evaporate? In the absence of any of these events, the way forward must take place against a background very similar and equally as difficult as that which has transformed the global apparel sector over the last few decades. The challenges are formidable in the extreme and, in the main, of a global nature. Accordingly

the next three chapters will deal with global and trade issues before attention is focused from Chapter 7 onwards on future strategic issues and developments.

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